STRENGTHENING A CONTENT-BASED INSTRUCTION CURRICULUM BY A NEEDS ANALYSIS

Graduate School of Education

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by

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in

DEPARTMENT OF
TEACHING ENGLISH AS A FOREIGN LANGUAGE
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JULY 2006

To my beloved wife,
Asuman Canbay

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Teaching English as a Foreign Language.

_____

(Dr. Charlotte S. Basham)
Supervisor

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Teaching English as a Foreign Language.

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(Dr. Theodore S. Rodgers)
Examining Committee Member

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Teaching English as a Foreign Language.

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(Dr. Aysel Bahce)
Examining Committee Member

Approval of the Graduate School of Education

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(Visiting Prof. Dr. Margaret Sands)
Director

ABSTRACT

STRENGTHENING A CONTENT-BASED INSTRUCTION CURRICULUM
BY
A NEEDS ANALYSIS

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This study investigated the academic English requirements of English-medium departments at Karadeniz Technical University (KTU) from the content area teachers' and departmental heads' point of view for Content-Based Instruction (CBI) in prep classes. Data were collected through questionnaires and interviews in thirteen departments, the students of which enroll for one year in the School of Basic English. The questionnaire prepared in Likert scale having six sections and 62 sub-items was completed by 128 content area teachers. Interviews were conducted with 13 heads of departments.

As the primary aim, the study investigated which skill, among reading, writing, speaking, listening and translation, has the highest priority for the English medium departments at KTU. A secondary aim of the study was to determine the importance of specific language tasks and activities related to the skills of reading, writing,

listening, and speaking for all departments teaching content area courses 30 percent in English.

The analysis of data was based on the interpretations of means and percentages. In addition to these, one way ANOVA tests were applied on all subitems in order to see whether there was a significant difference in the choices of participants from different departments. Further analysis using Crosstabs and Scheffe tests was done to confirm the variation and see the distribution of responses according to departments.

The results show that the vast majority of content area teachers in different departments report that reading is the most important skill for the English-medium departments. Apart from the most important skill, the ranking of other skills varies from one department to the other.

Based on these results, adjusting the current curriculum in accordance with the expectations of content area teachers is recommended.

Key words: Content-Based Instruction (CBI), Theme-based Model, Needs Analysis

ÖZET

İÇERİK TEMELLİ İZLENCENİN İHTİYAÇ ANALİZİ İLE GÜÇLENDİRİLMESİ

Canbay, Mehmet Orkun

Yüksek Lisans, Yabancı Dil Olarak İnglizce Öğretimi

Tez Yöneticisi: Dr. Charlotte S. Basham

Ortak Tez Yöneticisi: Dr. Theodore S. Rodgers

Temmuz,2006

Bu çalışma, Karadeniz Teknik Üniversitesi'nde (KTU) İngilizce öğretim veren bölümlerdeki öğretim görevlilerinin bakış açısından hazırlık sınıflarındaki içerik temelli izlence için İngilizce ihtiyaçlarını araştırmıştır. Veri öğrencileri bir yıl hazırlık okuyan on üç bölümde uygulanan anket ve mülakatlar aracılığı ile toplanmıştır. Likert ölçeğinde hazırlanmış 62 maddeden oluşan anket alan derslerini veren 128 öğretim görevlisi tarafından doldurulmuştur. 13 bölüm başkanı ile mülakatlar yapılmıştır.

Temel amaç olarak, bu çalışma KTU'deki İngilizce müfredatlı bölümler için yazma, okuma, konuşma, dinleme ve çeviri becerilerinden hangisinin önemli olduğunu araştırmıştır.

İkinci amaç ise alan derslerini İngilizce veren bölümler için okuma, yazma, dinleme ve konuşma becerileri ile ilgili belirli dil aktivitelerinin ne derece önemli olduğunu belirlemek olmuştur.

Toplanan verilerin analizi için ortalama ve yüzdelik hesaplamaları kullanılmıştır. Bunlara ilaveten, farklı bölümlerden katılımcıların cevap verdiği tüm maddelere frekans, yüzde analizi, Ki-kare tesleri, ve varyans analizleri uygulanmıştır.

Araştırma sonuçlarına göre farklı bölümlerdeki alan öğretmenlerinin büyük bir çoğunluğu İngilizce müfredatlı bölümler için 'Okuma' en önemli beceri olduğunu belirtmiştir. En önemli beceriden ayrı olarak, diğer becerilerin önem sırasının bir bölümden diğerine değişiklik gösterdiği görülmüştür.

Bu sonuçlara dayanarak, mevcut müfredatın, alan öğretmenlerinin beklentileri doğrultusunda uyarlanması önerilmiştir.

Anahtar Sözcükler: İçerik Temelli İzlence, Konu Temelli Model, İhtiyaç Analizi

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CHAPTER I: INTRODUCTION

Introduction

"What is the most effective way of teaching a second/foreign language?"

There have been debates and research studies on this question throughout the history of language teaching. Through that time, new approaches and methods have been tried and applied as alternatives to the previous ones. Some of them have been accepted, some have not. From the 1950s to the 1980s, the rise and fall of a number of approaches and methods in language teaching gave the period the name "The Methods Era" and also led to the development of the Communicative Approach (Richards and Rodgers,2001). Communicative approaches to English language teaching were gradually accepted, in opposition to the ones focusing on structural aspects of language rather than the functional aspects. Among these approaches, Content-Based Instruction (CBI), focusing on the process and outcomes of learning rather than the method, gained importance in the 1990s and got its place in ELT.

CBI is an approach to foreign language teaching in which language is taught through the content or knowledge that students acquire (Richards and Rodgers,2001). As described by Leaver and Stryker (1997), CBI differs from traditional foreign language teaching methods in that language learning is achieved through the study of subject matter. Unlike traditional foreign language classes, which resemble music

classes where the learners are not allowed to play any real pieces until they have the proficiency to give a recital, in CBI students learn a language by using language -like playing real pieces- as a means of communication.

Since English, the global lingua franca, has become more widespread not only as a vehicle of communication in our daily life but as an international language for academic texts and instruction in countries throughout the world, universities in many countries have begun to prepare students for further academic study in their subject areas through the medium of English. In response to the need for English language proficiency in academic settings, CBI has been implemented in universities in an increasing number of program models, levels and settings.

However, there is a need for better cooperation between the English language teachers and the content area teachers if CBI is to be succesful in purposeful program, especially in English for Academic Purposes (EAP) settings.

This study aims to determine Academic English needs of English medium departments from the content area teachers' point of view for the CBI curriculum being applied at Karadeniz Technical University (KTU).

Background of the Study

Richards and Rodgers (2001) suggest that the content in CBI refers to the subject matter or information that is learned rather than the language used to convey it. CBI is not something new to TEFL. Instructors in many settings have taught content through the medium of a foreign language, as, for example, in the well-documented French programs in Canada (Swain,1991).

CBI can be implemented in different ways and models in language teaching. Richards and Rodgers (2001) list five contemporary models commonly used in

language teaching. These are: 1) Theme-based language instruction; 2) Sheltered content instruction; 3) Adjunct language instruction; 4) Team-teach approach; and 5) Skills-based approach (defined in chapter 2). Due to its flexibility in application, CBI has been implemented in different settings in different ways. Whereas Richards and Rodgers suggest five models, Crandall and Kaufman (2002) offer additional models: Sustained content, Simulated adjunct, and Content-centered language instruction. These models differ from each other in settings, levels, and the extent of language and content. According to Richards and Rodgers (2001:208), CBI is based on a theory of language that assumes: 1)language is text-and discourse based; 2) it is purposeful; and 3)language use consists of several skills. In addition, Leaver and Stryker (1997) also suggest that CBI curricula should reflect the needs of learners, consisting of authentic language and texts and based on subject-matter core. Instead of graded texts, core materials which are not specifically produced for teaching language but produced for native speakers are used in CBI. In addition to this, the activities used in CBI are based on realistic tasks in which authentic language is used and the students are expected to actively use the language itself to accomplish the tasks.

Both exposure to the language and quality of content are factors that affect success in language learning. For that reason selection of topics and themes in CBI requires a careful assessment of needs, goals, and interests of learners. The materials should provide learners many varied opportunities for communication in English, and this may be achieved by using materials which will attract students' interest in order to increase the communicative competence of the learners.

The language instructors are the ones who are responsible for selecting the themes, topic and contents and integrating them into the courses through which language skills are acquired during this complex process of implementing a CBI curricula. Even though the process of designing a CBI curriculum and carrying it out may require significant time, involvement, and commitment, CBI represents an effective education alternative (Kasper,2000).

In the light of this brief definition given above, the importance of determining the needs can be seen since the applications in CBI require a detailed understanding of the needs, goals, interests of the learners. The current study aims to determine the needs of learners to be used as a basis in CBI curriculum. The results are expected to strengthen the applications in the education where CBI is used as a bridge to further academic study.

Statement of the problem

The model of CBI which is applied in an educational setting is chosen according to the institution, instructional level, requirements, resources, needs and aims of the learners. As Snow and Brinton state (1988), to prepare the students to cope with the academic demands in English, academic skill surveys focusing on what the student are required to do at the university should be conducted.

Although the approach provides a good opportunity for programs from elementary to university due to its flexibility in application, in Kasper's (2000) opinion, application of the approach requires hard work, involvement, and commitment for the academic staff. The design of the curriculum requires many issues to be dealt with in advance, such as needs analysis, materials development, and cooperation with content area instructors. Due to the constraints such as time,

having too many departments and students, instructors' lack of knowledge in content area subjects, some problems occur in the adjustment of the curriculum and the integration of content area subjects into the classroom. Because of these adjustment and integration problems, not every objective of the curriculum may be achieved.

Karadeniz Technical University is an English-medium university where 30 percent of content-area courses are given in English. Since the departments offer 30 percent of content courses in English, the students of those departments are required to have a language proficiency at upper-intermediate level before they begin taking their content-area courses in their own departments.

At KTU, the School of Foreign Languages is responsible for language proficiency of university students, and it has three subdivisions: Translation and Interpretation, School of Basic English, and School of Modern Languages. The School of Basic English is responsible for English proficiency of the students who study in preparatory classes for one year before taking content area courses. While the students are studying at the School of Basic English, the classes are organized according to the students' departments, and Content-Based Courses, developed according to the students' departments, are given in order to meet the academic English needs the students will encounter when they take their content area courses.

Each year, this curriculum is reviewed as part of a curriculum renewal project. The curriculum renewal project has been improving every year due to the feedback from teachers and also from regular survey studies through questionnaires given to the students in order to evaluate the program. This curriculum renewal process in CBI – a demanding and challenging job requiring the consideration of students in fourteen departments - first began three years ago by teacher training sessions

organized by the administration in order to make the language teachers familiar with the approach and applications. A needs analysis through informal interviews with content area teachers was conducted for the same purpose. Due to the time limitations, the need analysis was restricted to interviews. It was an attempt to understand the requirements of content area courses from the content area teachers' point of view. The current curriculum was organized partly on the basis of the needs reported in the interviews by content area teachers. The expectations of interviewees showed that the students were expected to be familiar with the materials and text types used in subject area courses. Since the language teachers cannot be experts on science texts and materials in different subjects, teachers' lack of background knowledge necessary for understanding and using these materials in language teaching would be a problem. In order to solve this problem, the teachers working in the prep program were grouped in the light of their interests according to the departments, that is, the teachers interested in Geodesy and Geology would give courses to the students studying in Geodesy and Geology Departments, and some to the Forestry Engineering. In that way, the teachers would be familiar with the texts and materials used in these departments.

In the process of developing the links between the departments and the content area teachers, the language teachers collected texts and materials to be used in the content-based courses. While collecting materials and texts, the language teachers got in touch with the content area professors working in the departments. The purpose of getting in touch with the professors in content area departments was to strengthen the application by getting help from someone who is experienced in content area courses given in departments and familiar with the texts/materials used

in the departments. This attempt led to fruitful results. The content area professors served as a useful resource for the texts and materials. The materials they provided were the ones used during the first or second year in the departments. The coordination of language teachers and content area teachers helped to determine the relevant texts in the selection process. The texts collected were put in order according to their level and content for the English courses.

In the prep program having three levels of language teaching: beginner, pre-intermediate, and intermediate it was difficult to integrate the content into the beginner classes since the level of the texts was higher than the language level of students. For that reason, the administration put the beginner classes aside and focused on the pre intermediate and intermediate ones in the process of integrating content into the curriculum. The language teachers adapted the texts and the materials they collected to be used in language teaching.

In the current curriculum, the students in pre-intermediate levels and intermediate levels study content based materials in the reading skills course, and the content of these courses changes according to departments. For example, the students of Forest Engineering Department study texts, which are directly related to Forest Engineering, such as the relation of vegetation to climate, greenhouse effect, nature and location of the world's forests, and forest products industry. Thus, themes and topics used in content-based courses come from the text books used in the departments.

In addition to the applications mentioned above, the assessment and evaluation in the curriculum are based highly on project work. The content-based courses given

at KTU are supported with projects, some of which are directly related to the students content areas (see http://ydyo.ktu.edu.tr/uyg_esas.php).

In addition, some seminars given by content area professors were organized in the early days of curriculum renewal process in order to inform the students about the importance of English in content area courses. These seminars were thought to increase students' interests in content based courses. The seminars were video-taped and transcribed. They are still accessible in the website of school of foreign languages' website for the students attending the program (see http://ydyo.ktu.edu.tr/bilgilendirme.php).

The curriculum currently being applied shows similarities mostly with the theme-based model since it is tightly linked to a specific subject and supported with content-based units of authentic resources. Examples of similar applications are seen in the literature. For example, Kol (2002) mentions the content-based instruction course they implemented at Tel Aviv University for the students of Mathematics and Computer Science. She labels the application as a "theme-based model" in which the curriculum is structured around content-based units, some of which are taken from content area courses given in mathematics and computer science.

Since a sound curriculum requires a needs analysis done systematically and professionally, the analysis done at the beginning of the curriculum renewal process did not help to see the requirements of English medium departments in detail, and the curriculum developed was not based on the results of a well-organized needs analysis. Since there is a lack of data about the students' needs while taking content area courses, it is difficult to say that current curriculum developed in CBI meets the needs. As a result, there exist a lot of issues to deal with while developing the

curriculum components at my home institution, such as: identification of goals and objectives, the development of materials, integration of English courses through the content area units, and testing. The problems that arise in the curriculum renewal process seem to be the result of not having a sound needs analysis.

I believe that determining the Academic English requirements with the help of a well-prepared and well-conducted needs analysis will strengthen not only the bridge used by students in order to pass to the content area courses but also the foundation of the CBI applied for students' better success at their content area courses.

My study will focus on determining the Academic English requirements of English medium departments from the content area teachers' point of view specifically,the skills having the most importance for the department and the difference in the reported requirements among those departments. The results of the study will help the administrators, coordinators, and course designers of CBI at KTU to see some pieces of the picture in the content area departments from the content area teachers' point of view.

Significance of the Problem

Some case studies of large-scale needs analysis have been carried out in different ELT settings. In her article on content-based approaches to teaching academic writing, Shih (1986) cites need analyses conducted by Behrens surveying 128 faculty in 18 disciplines and 6 professional fields at American University and Eblen's need analysis by questionnaires from 266 faculty in five academic divisions at the University of Northern Iowa. In addition to these, two thesis studies on requirements of Turkish medium departments were written in the MA TEFL program

at Bilkent University. Both of these studies resemble the current study since they investigated the requirements of different departments. One is Arık's study (2002) investigating the requirements of discipline teachers for academic English language use in a Turkish medium university. The other one is Guler's study (2004) investigating the academic English needs of students at Yıldız Technical University and disciplinary teachers' attitudes towards English medium instruction at tertiary level. The main difference in the current study is that it is focusing on academic English requirements of English medium departments. The results of the study are expected to help the English medium institutions be aware of the requirements of departments while designing a prep year curriculum for teaching English.

Above all, the results of this study may be a basis for an ongoing program. Academic English requirements of English-medium departments at KTU will be clarified from the content area teachers' point of view. The results of the study will help administrators, curriculum designers, and language instructors to see some of the points to be considered for development and improvement of CBI. This will increase the quality of application and language teaching at my institution to meet the linguistic and communicative needs of students entering English-medium departments.

Research Questions

This study will investigate the following questions:

1) From the content area teachers' point of view what are the Academic English requirements of content area courses in English Medium Departments at KTU?

2) To what extent do the reported Academic English requirements of content area courses differ among the English Medium Departments at KTU?

3) Which language skills have the most importance for content area courses in English Medium Departments among the reported requirements at KTU?

CHAPTER II: LITERATURE REVIEW

Introduction

The purpose of this study is to determine the needs of students taking content courses in 30 percent English medium departments of KTU after completing prep classes.

Course designers' and teachers' lack of knowledge about the actual requirements and expectations of the content courses in English-medium departments causes some problems in the design of the curriculum, development of materials, and preparation of the exams in prep classes. This may result in students' failure in content courses. A few studies were conducted in the past to investigate the academic skills required in content courses, but they provided knowledge based on one skill such as writing, reading, speaking, or listening. In this study, a comparative analysis of the skills (reading, writing, speaking and listening) will be done to determine the priorities of students' needs. The difference between the needs according to the departments will be determined.

This chapter establishes a framework in order to clarify the relationship between needs analysis and curriculum/syllabus design. As a first step, the researcher

defines CBI and reviews historically how various CBI models are presented in the literature. Next, needs analysis, including its types, methods, and its importance in a curriculum/syllabus design are explained in detail. Finally, a variety of similar needs analyses in the literature are reviewed in this chapter.

Content-Based Instruction

Definitions of Content-Based Instruction

CBI is defined by Brinton et al (1989) as an approach in which particular content is integrated within language teaching, aiming at the success of students learning language. They state that the curriculum in CBI is organized around academic needs of students in which the focus is the students' acquisition of information through language learning by developing their academic language skills.

Snow (2001), emphasizes the relationship between CBI and the tradition of English for Specific Purposes, where the components of education such as materials and curriculum are based on the needs of learners determined in advance, and with EAP, the aim of which is to prepare students to be successful in their academic studies.

Krahnke (cited in Richards and Rodgers, 2001; Brinton et al, 1989) defines CBI as follows:

"It is the teaching of content or information in the language being learned with little or no direct or explicit effort to teach the language itself separately from the content being taught" (p.240).

Grabe and Stoller (1997) emphasize the complementation of content and language to each other in CBI: "the language is as a medium for learning content and content as a source for learning language" for an overall definition of the approach.

In accordance with these definitions, Richards and Rodgers (2001) stress the importance in CBI of using language as a vehicle for acquiring knowledge, pointing out the three common assumptions language and language learning in CBI as follows:

1. Language is text and discourse-based: language learning is beyond the formation of sentences, and the knowledge to be conveyed or comprehended underlies the nature of language in CBI.
2. Language use draws on integrated skills: In CBI, language is the use of all skills reflecting the real world.
3. Language is purposeful: Language is learned or taught for a specific purpose due to the expectations or needs of learners (p.208).

The Historical Background of CBI

According to Briton,Snow and Weshe (1989) the history of CBI dates back to 389 A.D., when St. Augustine suggested the importance of meaningful content in language learning as follows:

"Once things are known knowledge of words follows….we cannot hope to learn words we do not know unless we have grasped their meaning. This is not achieved by listening to the words, but by getting to know the things signified" (p.4).

In the history of ELT, language teachers have had a tendency to use meaningful content in order to convey new items in addition to a way of teaching a language (Briton, Snow and Weshe,1989; Richards and Rodgers, 2001). For many years, special language courses have included meaningful and purposeful content within the language curriculum aimed at the professional and academic studies of the learners (Freeman, 2000). However, there has been a debate on the issue of using content in

teaching a language, such as the role and amount of content in teaching, the students' interests in given content, and the best way to integrate content with the language teaching purposes (Briton,Snow and Weshe, 1989).

The application of CBI in language teaching integrates the practical experiences and theories of several kinds of language teaching models in which the target language is acquired through subject matter content. Examples are Language Across the Curriculum, Language for Specific Purposes and Immersion Education Programs (Briton,Snow and Weshe,1989; Richards and Rodgers,2001).

An example of content-based language teaching is Immersion Education, beginning in 1965, in which the school learners are exposed intensively to the target language through communication with a native speaker while learning their subjects in the target language (Briton,Snow and Weshe,1989; Richards and Rodgers,2001).

Language for specific purposes is reported to be the best example of a content-based language model aiming at preparing the learners for real demands. Examples of language for specific purposes were first developed in Britain at universities and occupational settings for adults having identifiable second language objectives (Briton,Snow and Weshe,1989).

After the Second World War, the developments in world economy in the 1950s and 1960s led to a growth in technology and science, and all these rapid changes in two decades increased demand for English as the international language for technological, scientific and commercial settings (Jordan, 1997; Hutchinson and Waters, 1987; Evans and John,1998). The demand for English in these settings caused ELT practitioners to adopt a perspective favoring ESP (Jordan, 1997; Evans and John,1998).

ESP differs from general English in its aim to meet the specific needs of the learners and its relation to particular occupations and studies (Evans and John,1998; Hutchinson and Waters, 1987). In order to define it, Robinson (as cited in Evans & John, 1998) points out the key features of ESP courses as being goal-directed and developed from a needs analysis (as cited in Evans and John,1988, p.3). As the key stage and cornerstone of ESP, Evans and John (1988) state the importance of needs analsysis in shaping the teaching, materials and overall course of ESP while defining it.

In addition to ESP, EAP may be considered as one of the branches in the roots of CBI. The history of EAP dates back to the times when English became an important issue in academic settings for the students studying in English-speaking countries or in English medium institutions (Evans and John, 1988, p.34, Jordan, 1997, p.1-5). The basic purpose of EAP is to develop learners' communication skills required for formal educational settings (Jordan, 1997). In this sense, EAP is a kind of tailor-made instruction, changing according to the purposes but matching with the learners' needs and purposes as compared to general English. This key feature of EAP matches with CBI since it also requires a tailor made instruction. As Brinton et al.(1989) state that CBI should be "based directly on the academic needs of students and generally follow the sequence determined by particular subject matter determined by a particular subject matter in dealing with the language problems which students encounter" (Brinton et al.,1989, p. 2).

The application of EAP may take place in different educational settings and countries (Evans and John, 1988, p.34). According to Jordan (1997), before such an education in academic purposes, the students have a language proficiency in general

English, and due to the differing academic purposes of the learners in need of English, determining the particular skills required for the subject of academic study is crucial for EAP syllabus and course design.

Theoretical Foundations of CBI

Brinton, Snow and Wesche (1989) propose five different fundamental reasons for integrating language teaching and content. First, one of the major features of ESP includes considering learners' eventual uses of language and focusing on the forms and functions that cover the learners' purposes. CBI matches with ESP in including content in language teaching in order to meet the learners' needs in a purposeful program. Second, taking the learners' needs and interests into account increases their motivation. Third, Content-based approaches are based on the learners' existing background knowledge of the subject matter. Fourth, teaching is based on realistic uses and includes social interaction patterns rather than use of graded sentences. Indirect support for CBI within Second Language Acquisition comes from Krashen's Input Hypothesis (Krashen, 1985), which states that the input should not only consist of new elements to be learned but also cues from the context which help the learners comprehend the input (Briton,Snow and Weshe,1989; Kasper, 2000).

Models of CBI

Brinton et al (1989) claim that CBI has three common models in elementary, secondary and university education: the sheltered model, the adjunct model, and the theme-based model. Richards and Rodgers (2001) mention two more models in addition to these: team-teach and skills-based approach, which are also applied in educational settings.

First in the sheltered model the content courses are given by a content specialist who is a native speaker of the target language to a segregated group of ESL students (Brinton et al,1989). In order to make the course comprehensible, the instructor uses a level of language appropriate for the students (Richards and Rodgers,2001). For the same purpose, the sheltered courses are required to have modifications such as carefully selected texts and linguistic adjustments which help comprehension (Binton et al, 1989).

Next, in the adjunct model a language course and a content course are linked, sharing the same objectives and assignments (Brinton et al,1989). Students attend the content course and language course at the same time. The language course complements the non-native students' needs in order to be successful in content course (Snow,2001). The adjunct courses also aim to help the non-native students increase self confidence by providing them real life tasks to accomplish using the language (Stryker and Leaver,1997).

The third model of CBI is the theme-based model, where language courses are structured around themes or topics which are integrated into teaching all skills (Briton et al,1989). The teacher organizes language learning activities around these topics or themes in a way different from traditional language courses in which the topics are specifically used for a single activity (Snow,2001). It is reported by Snow (2001) that the theme-based model has been widely used in language courses of college or university level students with different backgrounds but with a common goal in need of academic English skills.

Brinton et al.(1989) points out another type of theme-based curriculum apart from those organized by sequencing themes: in this type a major topic (e.g.,

education) may be used for an entire course in which the curriculum is organized around more specialized subdivided topics such as higher education, distant education, and so forth. Another example for a major topic and its subdivided topics in theme-based model is given by Stoller and Grabe (1997). They assert that the organization of courses such as Introduction to Linguistics or Sociolinguistics are essentially theme- based, and they mention that those courses cover topics which are linked to each other under a theme based on the course title. For a better understanding of the organization of a theme-based course, they propose a six-item outline, which covers the basic components of the model as follows:

1. Themes: The ideas around which the other components such as texts and tasks are organized due to aims of the course,the students' needs and interests, and institutional expectations.
2. Texts: Content resources which provide sustainment and progress of the plan on the way to achieving the goals of course.
3. Topics: The sub-elements of major content which help to examine the theme more specifically in coherence, providing a setting where the learners explore both content and language .
4. Threads: The ties between the themes providing coherence to the overall curriculum in a naturally-woven way, while bridging the themes, seeming separate and also providing opportunities to examine the content and language from different perspectives.
5. Tasks: Being in accordance with the texts, tasks are the activities through which the instructional skills appropriate for the objectives of the course are utilized.

6. Transitions: The pre-planned activities in order to provide and sustain the coherency across topics in a theme and tasks in a topic (Stoller and Grabe, 1997, p.83-84).

Team-Teach approach: It is a similar application of the adjunct model in which the content teacher complements the language teacher by providing materials appropriate for the objectives of language learning and needs of the learners. Richards and Rodgers (2001) cite two examples of the approach, one at University of Birmingham based on the lecture comprehension and the writing of exam questions (Shih,1986), and another example from a polytechnic program in Singapore, where the students take a course designed in order to prepare them for writing tasks required for their future jobs.

Skills-based approach: Different from the models described above, the language course based on a particular academic skill is linked to the content course. The language course complements the academic needs of students in a way stimulating them, the materials and the content of language course is derived from core subject content (Richards and Rodgers,2001).

The applications of curriculum for which the current study aims to do a needs analysis are organized on a theme-based model. The curriculum designed according to theme-based model at prep classes involves topics differing according to students' departments. The texts and tasks are organized around the themes according to students' departments, in which the physics students study the topics around physics, whereas others study those in accordance with their departments.

Despite the effectiveness of CBI, it also has shortcomings. Kinsella (1997) criticizes CBI for being dependent on teacher. Teachers in CBI make content

materials accessible to their students but this practice, which helps students reach comprehensible input restricts students' independence and autonomy. She states that CBI should be supported with some applications preparing the learners to be autonomous.

As stated above, one of the key features of CBI is that it organized around academic needs of students. The next section discusses ways in which those needs are determined.

Needs Analysis

A needs analysis, one of the basic requirements of curriculum design in education, is a process of collecting data systematically about students' needs and preferences, analyzing the data and using it as a basis for a course in order to meet the needs (Graves, 2000; Brown,1995; Jordan, 1997; Evans and John,1998).

According to White (1988), recognizing the importance of needs analysis dates back to the recognition of a notional-functional approach, in which the learners make use of language apart from the language system itself. That is to say, a basic component of language teaching should be considering the content and objectives of a syllabus in advance in order to meet the ends. In this way, the learners not only deal with the structures which are selected randomly but also use the language for a purpose in a functional way. The very first impacts of need analysis were peculiar to the ESP situations in the 60s, and became well known in the 80s, especially for ESP or curriculum designed for vocational purposes (Evans & John, 1998, Richards, 2001). Through the history of needs analysis, studies investigating needs were carried out, but the most comprehensive system for analyzing learners' needs was

developed by Munby (as cited Jordan,1997). It was based on the components of communicative competence.

In language teaching, a needs analysis can be conducted before, after and during an educational activity, so that it serves a variety of purposes differing due to the situation (Evans & John, 1998). Very commonly it is used for the purposes of 1) learning the basic skills required to be successful in a context such as at a university, business and so on; 2) determining if a course fulfills the needs of students attending it; 3) selecting the members of a group which are specifically in need of acquiring a competence; 4) seeing the mismatches between what is needed and what is already being done; and 5) and developing a view on a basic problem that the students are reported to have (Richards, 2001).

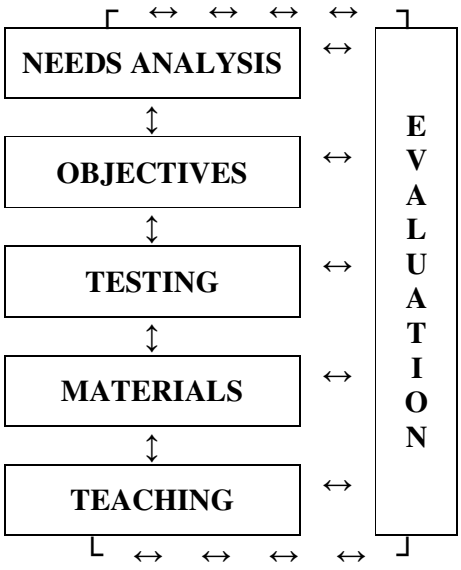
The importance of needs analysis in a curriculum design

A curriculum design requires many issues to be considered in advance and has components which require strong ties between each other. These basic issues crucial for a syllabus design such as goals and objectives and the way of teaching can be determined by doing a needs analysis. Along the same line, the needs analysis strengthens the bonds among the components in a curriculum by highlighting issues which leads to the specification of objectives for a course or set of courses and to an assessment of available resources and constraints, which in turn leads to purposeful syllabus(es) and methodology.

For the development of a sound curriculum, there are different views on the components and their ties between each other. Brown (1995) proposes six basic components of curriculum design (see Figure 1 below), and emphasizes their close relation to each other. The needs analysis is listed as a critical component of

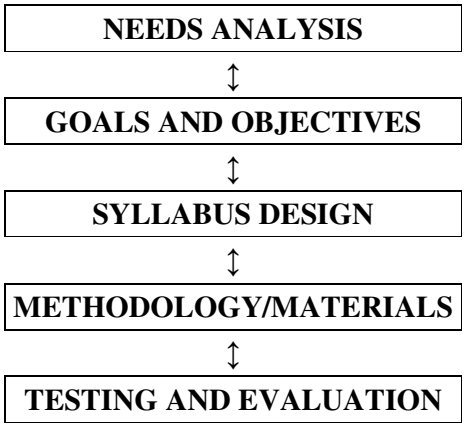
the curriculum cycle which helps with the identification of relevant information required to have sound bonds between other components of design to satisfy the language requirements of learners.

Figure 1: Brown's Systematic Approach to Designing and Maintaining Language Curriculum (Brown,1995,p.20)



In addition to Brown's (1995) scheme, Masuhara (1998) proposes five components as a summary of a course design recommended by experts, in which the first step is reported to be the needs analysis for determining the goals and objectives before the design of a syllabus, as seen in Figure 2. Determination of the methodology and developing materials follow the designation of a syllabus in the process of a course design which ends with the testing and evaluation.

Figure 2: Masuhara's Model of Course Design Procedures (Masuhara, 1998, p. 247)



The basic difference between these two models lies in the evaluation. Brown (1995) suggests evaluation to be a component interacting with every stage of curriculum design, whereas Masuhara (1998) puts it in the end of the list based on methodology and materials. When we compare the two models suggested by Brown and Masuhara, we see that Brown's model seems more applicable and useful. The model offers the advantage to the curriculum designers to intervene in any phase of curriculum. By that way, the interaction among the components strengthens the applications which in turn leads to the increase of efficiency and effectiveness of the curriculum.

Brown's (1995) model fits the situation of the current study, since the needs analysis that is going to be done would be for curriculum in progress. In this sense, the study verifies that a needs analysis not only can form a basis for a program, but also can also be used as a supporter for an existing one. The results of the needs analysis may help to strengthen the applications and every other component of the curriculum.

As one of the components of curriculum, the needs analysis was discussed above in the overall model of curriculum design. In the following section, the approaches, types, and stages of a needs analysis will be discussed.

Approaches to Needs Analysis

The aspects of needs analysis may differ according to the type of information needs analysts intend to gather. But sometimes the issues considered in advance and included in a needs analysis may not reflect the expectations and the important needs. In this sense, narrowing down the choices to be investigated helps the needs analysis focus on a particular situation which will lead to more focus on what is being investigated and prevent failure.

Evans and John (1998) assert the close relation between needs analysis and evaluation among the stages of EAP; in some cases these two overlap with each other. Need analysis, a corner stone of curriculum design, helps the designers have a perspective on the required competences at the end of a course. Jordan (1997) names the determination of the needs of the learners that should have been acquired by the end of a course as Target Situation Analysis. According to Munby (as cited in Jordan, 1997), needs refer to the specification of communicative competences in Target Situation Analysis. In addition to these, target situation needs analysis is also defined by Brindley (1984) as determination of the nature and effect of target language communication in specific situations such as in offices and subject area academic departments. Apart from investigating the requirements to be achieved at the end of a course, in Present Situation Analysis, students' existing proficiency at the beginning of a language course is examined (Jordan,1997).

In addition to the analyses based on situation, Hutchinson and Waters (1987) propose a needs analysis based on learning centeredness. They define the difference between learning-centered and learner-centered as the learning situation being totally due to the learner in learner-centered, whereas the learning process is due to the bonds between learner and society in the other one. They draw the distinction between target needs (the requirements of a target situation that the learner has to fulfil) and learning needs (the requirements for an individual in order to learn) in language teaching. On the same issue, Young (2000) emphasizes the importance of needs analysis while constructing a more learner-centered course or curriculum although there exist a variety of contrasting student-perceived needs. He comments as follows;

" In spite of, or perhaps, because of the diversity of preferred learning styles, some would argue that learner needs are best identified, not by learners themselves, but by education professionals" (p.73).

The issues to be considered while doing a target needs analysis highlight the points related to the end of a training. Hutchinson and Waters (1987) state the importance of proposing some questions for analysis of target needs that the designer should ask in curriculum design:

a) Who will the learner use the language with?
b) Where will the language be used?
c) When will the language be used?
d) Why is the language needed?
e) What will the content areas be?
f) How will the language be used? (p.59)

And questions for learning needs:

a) Why are the learners taking the course?
b) How do the learners learn?
c) What sources are available?

d) Who are the learners?
e) Where will the ESP (or EAP) course take place?
f) When will the ESP (or EAP) course take place? (p. 62-63)

On the other hand, Jordan (1997) cites *strategy analysis,* which focuses on analysis of the methodology applied in language teaching, and *means analysis*, contrasting with other needs analyses by investigating what might be, rather than what should be, done. In means analysis the whole picture of the context in language teaching is examined in order to investigate the way to apply a curriculum or to implement a course. The means analysis examines the setting where the teaching will take place, and it is done as an adjunct to needs analysis (Evans and John,1998).

A broader term related to the approaches of needs analysis in addition to those mentioned above, *language audits* are large scale studies covering the language needs in specific business settings, regions or countries (Jordan,1997) .

In addition to needs analysis done for ESP or EAP, Seedhouse (1995) mentions the rarity of needs analysis done in the general English classroom and reports the study he carried out by a questionnaire to investigate the needs of a general English classroom among twenty nine young learners in Barcelona. The results of this study showed that the learners had a very clear idea of their own needs and wants. He proposes that needs analysis be a basis for any course design since there is a direct link from needs to aims in course design, classroom implementation, and evaluation (Seedhouse,1995).

Masuhara (1998) classifies the needs in needs analysis literature from three aspects given in Figure 3; ownership (whose needs), kind (what kind of needs), source (the sources of need).

Figure 3: Masuhara's list of needs identified in needs analysis literature (p.240)

OWNERSHIP	KIND	SOURCE
LEARNERS' NEEDS	Personal needs	Age, sex, cultural background, interests, educational background
	Learning needs	Learning styles, previous language learning experiences, gap between the target level and the present level in terms of knowledge (e.g. target language and its culture), gap between the target level and the present level of proficiency in various competence areas (e.g. skills, strategies), learning goals and expectations for a course
	Future professional Needs	Requirements for the future undertakings in terms of: Knowledge of language Knowledge of language use L2 competence
TEACHERS' NEEDS	Personal needs	Age, sex, cultural background, interests, educational background, teacher's language proficiency
	Professional needs	Preferred teaching styles, teacher training experience, teaching experience
ADMINISTRATORS' NEEDS	Institutional needs	Sociopolitical needs, market forces, educational policy, constraints (e.g. time, budget, resources)

Masuhara (1998) states the significance of teachers' psychology in teaching, since teachers are often regarded as passive in language teaching but expected to be flexible in application of methodology and in achieving the goals put forward by either method or learning theory of teaching. This strengthens the idea of considering the teachers' psychology in a needs analysis and including it where the results may contribute to the setting in terms of teachers' attitude.

As in every sort of research, validity and reliability have been big concerns in a needs analysis. In order to increase validity and reliability, Masuhara (1998) suggests

triangulating needs from three aspects: a) Self-perceived needs, which are reported and defined by teachers themselves, b) Needs perceived by others apart from teachers, such as colleagues or researchers by the help of observations, and c) Objectively-measured needs, the data collected by objective studies and analysed by a third individual.

In a needs analysis some of the reported needs may not be necessary, obligatory, or appreciated as suitable for the administration and the institution, and they can be interpreted as *wants* (Masuhara,1998). For example, a short paragraph writing may be reported as needed for a speaking class by the teacher, but requiring writing in a speaking class may not be appropriate according to a majority of specialists. In this case the reported activity is called wants instead of needs.

Stages in a Needs Analysis

The contexts of needs analysis may change, since the main purpose of a needs analysis may differ due to the focus. For this reason, any given needs analysis might be investigating the pre-requirements of an implementation, while another one might investigate the ongoing process of teaching or the end of the training (Evans & John, 1998).

According to Graves (2000), the process of a needs analysis consists of a few steps in order to answer a question required to achieve the intended purpose. The very first step in conducting a needs analysis is to make the decision for what information to gather and why. After deciding the reasons and the type of information to be collected, the ways to reach the intended purpose are clarified by answering questions such as when, how and from whom information is to come. Gathering information, one of the longest miles in a needs analysis, begins following

those steps mentioned above. In the end all information gathered is interpreted and regulated.

Brown (1995, p.37) mentions the importance of making fundamental decisions about the people involved in a needs analysis. For the determination of who will be involved in the needs analysis he defines four categories of people involved: 1) the target group consisting of those people about whom the information will be collected, 2) the audience who will be required to have influence on the needs analysis, 3) the need analysts who are responsible for conducting the needs analysis, and 4) the resource group which involves the people who may provide information about the target group.

Methods in Needs Analysis

The ways of gathering data on needs may vary due to the purpose of the study. In order to see the desired picture in a needs analysis, the questions should be clarified in advance and can be classified according to what specifically will be identified by the help of the needs analysis. Identification of the existing problems, investigation of the priorities for a group, and the language skills required for the learners in a program are common types of questions around which the needs analyses are organized.

In addition to those, questions based on understanding attitudes and feelings of participants in program can highlight the needs, reveal valuable information for an ongoing program, and help to see the issues difficult to observe with bare eyes. The questions examining the solutions of perceived problems provide ideas for strengthening the frame of the program (Brown,1995).

The ways to collect the crucial data required in a needs analysis may vary due to the contexts and purposes, but determining the type of philosophy and answering the questions mentioned above help to choose the best procedure to gather the data required in a needs analysis.

Observation and monitoring are used to determine the students' difficulties in speaking and listening in a course. They involve watching a learner or a group of learners and recording the behaviours that take place to provide a basis for development of materials and for course design (Jordan,1997; Brown,1995; Richards, 2001).

Questionnaires are the most common instruments used to gather data to understand the overall picture of students' perceived needs and, these are given directly to the participants. If it is conducted on a large scale, the results of the study are more likely to be reliable and valid (Jordan,1997; Richards,2001). The interviews and meetings reveal some points to be explored on a large scale, and the questionnaires can be fruitful in those situations, since they are easier to conduct on a large scale compared to other ways of collecting information on the needs of students (Brown,1995).

Brown (1995) mentions five different questionnaires designed according to their purposes. Bio data surveys illuminate the background of participants; these may cover the participants' ages, marital status and others. Data regarding attitudes and opinions towards the existing program lead to objectives, and other components of education can be explored by the help of questionnaires in opinion surveys. In addition to these, participants can rate themselves according to their own skills and motivations in self ratings (Richards,2001; Jordan,1997). Jordan (1997) labels those

kinds of surveys as self-assessment but proposes that any survey on self-assessment can be carried out not only with questionnaires but also interviews and tests (Jordan,1997). Similar to self ratings, participants can be asked to evaluate a program from different aspects in judgemental ratings. Finally, combination of all questionnaire types of the Q sort can be used to gather data on students opinions and views on a particular situation (Brown,1995).

The structured interview consisting of prepared questions is another method used to collect data in a needs analysis. Mackay (as cited in Jordan, 1997) suggests using interviews since no questions will be left unanswered and some issues to consider will arise during an interview which have not been thought of before. As a disadvantage, interviews are reported to be time consuming and strongly dependent on the personal interaction of interviewer and interviewee. Interviews can be used as a basis for the issues that will be explored in later questionnaires or observations in a needs analysis (Brown,1995)

The way that the interviews are conducted may change according to the situation. They may be conducted face to face and via phone calls (Richards,2001) and also they can be conducted in a group or in an individual setting. The opinions expressed may differ when the participants are interviewed individually or in a group (Brown, 1995).

Meetings are different from group interviews as they require participants to accomplish an activity or a task whereas group interviews require only answering some questions (Brown, 1995). Another needs analysis method suggested by Jordan (1997) is the learner diary, which is based on student introspection and provides insights into students' learning experiences.

In the current study, needs will be determined from the content teachers' points of view. Since surveying content teachers in fourteen different departments requires a large scale study, the researcher aims to use questionnaires as indicated in the literature as a good method for large scale studies (Jordan,1997; Richards,2001; Brown,1995). In order to avoid issues unexplored by the questionnaires, the researcher will have interviews with the heads of the departments included in the study. As Mackay (as cited in Jordan, 1997) suggests, interviews can serve a useful support for questionnaires when certain issues need clarification. As a supportive instrument to questionnaire, the interview will also be used in order to increase the reliability and validity of the study.

Similar Studies

In the process of curriculum development and renewal projects at different educational settings, needs analyses were done for different purposes, some of which are investigating the requirements/needs of different skills such as reading, writing, speaking, listening and then comparing the results in order to determine the most important one or some of which are dealing with only one skill and the sub-skills of it.

In their study investigating the effectiveness of adjunct model, Brinton and Snow (1988), two of the pioneers of CBI, discuss the needs assessment they did for the required skills of the content course to determine the instructional priorities of the language course. In order to gather data required for the curriculum design, they got feedback from both content teachers and language teachers. In addition to that, the assessment included analysis of materials in content and language courses and also review of assignments.

Gee (1997) describes the needs analysis he did at Glendale Community College while answering the question "How can ESL and content teachers work together effectively in adjunct courses?" He implemented an adjunct course pairing the advanced reading and composition class with a course in social science. To determine the needs, he developed a questionnaire for the social science instructor to complete. In addition to this, he gave questionnaires to the students attending the adjunct course to determine *the wants* (Brown,1995; Brindley, 1984). The results of questionnaires revealed the importance of speaking for the students to ask questions and respond to questions in class, the importance of listening skills due to the rapid speaking styles, and the need of reading skills for understanding vocabulary and main ideas, lastly writing was reported to be important (Gee,1997).

A needs analysis particularly for a theme-based program was done by Kol (2002). She mentions the needs analysis that was carried out for CBI courses for students of mathematics and computer science at Tel Aviv University in Israel. The study included interviews with students and professors of mathematics and questionnaires with students, the results of which provided information for designing the curriculum and developing materials organized around the topics reported as interesting by the students (Kol, 2002).

In addition to those, Gonzales and Louis (2002) stress the importance of needs analysis in Content-Based English for specific purposes course design they prepared for Architecture and Urban Planning at Universidad Simon Bolivar, Caracas, Venezuela. They state that they could not conduct a complete needs analysis, but that they had established the reading material, the course objectives and the goal collaboratively with the Architecture Department. The study conducted in

collaboration with the Architecture Department provided the program the target situation analysis as described by Munby (as cited in Jordan, 1997). Gonzales and Louis (2002) also mention that they have involved the learners in the assessment of the program that they have been developing, and they point out that they had undertaken strategy analysis (Jordan,1997) and means analysis (Jordan,1997) of the program in this way.

Johns (1981) did a needs analysis at San Diego University. She gave questionnaires to 200 randomly-selected content area instructors to investigate academic language skills required for non-native students' success in university courses and which skill (reading,listening,writing or speaking) was considered to be the most important. The data collected by the questionnaires were analysed, and the results showed reading and listening to be the most important skills required for the students in order to be successful in their content area courses (Johns, 1981).

In order to investigate what the subject-matter instructors require, Ferris and Tagg (1996) did a needs analysis which is one of the surveys conducted on a large scale. In the study 900 professors at four different institutions were asked to report the important language skills for the students while they are taking content courses. Although the results of the study showed a big difference among the skills required according to the academic discipline, type of institution and size of the class, listening and speaking were reported to be the most required language skills in EAP settings for students. The conclusion was that EAP teachers should prepare students to understand course lectures and to participate in lectures and discussions.

Arık (2002) investigated the academic language requirements of students studying in Turkish medium departments at Niğde University (NU). The results of

the questionnaires given to 177 content teachers working at different departments revealed that reading was considered to be the most important skill required for students academic studies. Reading reference sources in English was reported to be the most important skill related to reading according to the content area teachers.

After the language of instruction switched from English to Turkish at Yıldız Technical University (YTU) , Güler (2004) investigated the language requirements of content courses from the point of view of content teachers who were working in Turkish medium departments at YTU. In the study, Güler used questionnaires to gather data from 254 content teachers working at eight different faculties. The content teachers reported English to be still very important in academic studies of students, with reading being the most required skill. In her study, content area teachers reported that reading in general for the students' discipline and reading English reference books were the most required skills for content area courses.

As mentioned above, apart from the studies investigating the importance of different skills, some studies were conducted investigating specifically the importance of one skill and its sub-skills.

A study was conducted by Ostler (1980) at the American Language institute, University of Southern California University investigating the students' assessments of both what academic skills they needed in order to successfully complete their studies and a self-assessment of their success in using English in varied social and business settings. The study revealed that there was a clear distinction between the academic skills needed by graduate and undergraduate students, and many students reported in the study that they had difficulties in reading complex academic materials.

Behrens (as cited in Shih, 1986) conducted needs analysis with 128 faculty in 18 academic disciplines and 6 professional fields at American University in order to determine the most frequent types of writings assigned to students. The study revealed that essays interpreting experiences or readings were the ones which were mostly assigned to the students.

Similar to Behrens' study, Eblen (as cited in Shih, 1986) did a study through questionnaires from 266 faculty in five academic divisions at University of North Iowa in order to determine the most required type of writing. The results of the study showed that the most required types were the informative and transactional types such as, analytical papers, abstracts of readings, and documented papers.

As mentioned above among the purposes of needs analysis reported by Richards (2001), one of the purposes of needs analysis is to see the mismatches between what is needed and what is already being done. Along the same line, Leki and Carson (1994) conducted a study in order to investigate the relationship between the writing courses taken by ESL students and the writing tasks required for subject content courses. In order to determine the mismatches between them, Leki and Carson (1994) gave open ended-questions to students taking content courses and those who had taken writing courses before. The results of the study revealed that there existed mismatches between the writing courses given in EAP classes and writing tasks required for content courses.

In addition to those studies mentioned above, Yazıcıoğlu (2004) did a needs analysis through questionnaires focusing on one skill in order to determine required writing skills necessary in two 100 percent English medium departments, at Hacettepe University. The Medicine and Economics Departments were included in

the study, with the results showing that writing skills were required more in the Economics Department compared to the Medicine Department. Among the sub-skills, good expression of main idea, grammatical accuracy, relevance of ideas to the context, taking notes, and writing essays and short answer types were considered the most important from the content area teachers' point of view.

Eroğlu (2005) investigated academic reading expectations in English for first year students at Hacettepe University from both students' and content teachers' point of view via questionnaires given to 35 content teachers and 99 students and interviews with 18 content teachers. Also reading samples from different departments were analyzed to make clear the reading expectations of the subject teachers in the study. The importance of students' being proficient readers and having adjunct courses were reported by the content teachers in the study. Specifically, the study suggested increasing students knowledge of academic vocabulary in order to help them read better in their courses. The content area teachers emphasized the importance of strategy training for the students in order to understand the gist and guess the meaning of unknown words.

From the content teachers' point of view, Şahbaz (2005) investigated the reading requirements of content courses through questionnaires and interviews at English medium departments at Anadolu University. To specify reading requirements of content teachers, Şahbaz analyzed fifteen reading samples from different departments. In the study, the content teachers reported the necessity of students' being proficient readers for success in content courses and the need felt for the support for students' vocabulary knowledge in prep classes. Furthermore identifying authors' point of view and reading course book and lecture handouts

were thought to be important for the students studying in English medium departments.

The current study differs from the studies listed above since it investigates the Academic English requirements of specific departments in EFL setting for a curriculum in a purposeful program which is currently in progress. Apart from the settings, when we consider the results of the studies mentioned above, which were conducted at different times, in different educational settings and for different purposes, they show that mostly reading was reported to be very important by the respondents. Considering the sub-skills investigated in the studies we see that the support needed for understanding academic vocabulary was emphasized. In addition, the results of the studies support the importance of reading course books, lecture hand outs, and reference books. The outcomes of these studies support the idea that increasing students' ability to acquire the contents in course books, lecture hand outs and reference books given in content area departments and also focusing on the academic vocabulary are the key features in purposeful language programs in EFL and ESL settings.

Conclusion

As mentioned above in the review of literature and studies, needs analysis is one of the crucial components in the process of designing or renewing a curriculum in any language program. The methodology being applied in a purposeful program can be strengthened by determining the needs of learners in advance. Since there is no study conducted on the same purpose as the current one, by doing a needs analysis, the researcher aims to provide useful and meaningful information for the CBI Prep classes of School of Foreign Languages at Karadeniz Technical University.

The results of this study are expected to highlight the frame of language skills required to be achieved through CBI and strengthen the applications of program by a more purposeful curriculum. In this chapter background information on CBI and Needs Analysis was given, and also similar studies were listed. The next chapter will give information on the methodology covering instruments, participants, data collection procedures and data analysis of the study.

CHAPTER III: METHODOLOGY

Introduction

The aim of the study was to determine the academic English requirements of English-medium departments from the content area teachers' point of view at Karadeniz Technical University (KTU). Data were gathered by questionnaires given to 128 content area teachers in 13 different departments and interviews with the heads of those departments.

As described in chapter one, the curriculum in prep classes is designed as a theme-based model of CBI. The syllabi for the courses differ according to the students' departments, and the courses are taught in homogeneous classes. Students study themes according to their departments, and the courses are supported by topics organized around real-life tasks and projects which students are expected to use language to accomplish. Since there are students from different departments studying at prep school, the curriculum and course development require a needs analysis specifically based on the language requirements of those departments in order to establish the objectives and goals. Lack of information about the students' needs causes difficulties in establishing the goals and objectives of courses and curricula. The results of this study are expected to help to the renewal of curriculum developed

at the prep school at KTU in determining the objectives and goals by providing information about requirements differing from one department to the other. The data collected are also expected to help to the overall frame of the curriculum by providing information about which skill is reported to be the most important by all departments.

Participants

The participants were the content area teachers working in thirteen different English-medium departments and heads of those departments at KTU. In order to determine the academic English requirements of English-medium departments, content area teachers and heads of departments were included in the study, since they are involved in all applications in the departments, and spend time with the students. Although it is one of the English-medium departments at KTU, the Faculty of Medicine was not included in the study, since the administrators of this faculty did not permit the administration of the survey among the content area teachers working there. There are 185 content area teachers working in thirteen English-medium departments, and all of them received the questionnaire except the heads of departments. The questionnaire was given to 185 content area teachers, and 128 content area teachers out of 185 (69.1 %) completed it. Interviews were conducted with 13 heads of departments. The heads of the departments were the participants in the interviews. The interviews were specifically based on the determination of what they perceived to be the most important skill. The reason for conducting interviews only with only the heads of the departments was to reach a core understanding of the most required skill with the help of people who are aware of the context.

The number of participants in each of the thirteen departments is seen in Table 1 below

Table 1

The number of participants in thirteen departments

Departments	N	P
Computer Engineering	5	3.9
Biology	8	6.2
Electric and Electronic Engineering	5	3.9
Physics	6	4.6
Maritime Transportation and Management Engineering	8	6.2
Civil Engineering	20	15.6
Geodesy and Photogrammetry Engineering	9	7
Geological Engineering	6	4.6
Public Administration	3	2.3
Chemistry	21	16.4
Mechanical Engineering	18	14
Forest Engineering	16	12.5
International Relations	3	2.3
Total	128	100

Note. N: Numbers P: percentage of total

Instruments

Questionnaires and interviews were used in order to collect data. Both methods are widely used in large scale analysis (Jordan,1997; Richards,2001). In this section, the design and the rationale of the questionnaires used in this study is presented and also a description of the interview method used is given.

Questionnaires

Questionnaires, given directly to participants, are the most commonly- used instruments to gather information about overall needs. If the study is conducted on a large scale, the results of the study is more likely to be reliable and valid (Jordan,1997; Richards,2001). Although interviews and meetings can reveal details to be explored, They are difficult and time-consuming to organize and conduct.

The questionnaires can be fruitful in those situations, since they are easier to conduct on a large scale compared to other ways of collecting data on the needs of students (Brown,1995).

The questionnaire was prepared on the basis of the researcher's teaching experience at KTU. The researcher had done some informal interviews with some of the content area teachers in order to redesign the curriculum at his place of work three years before this study took place. The interviews he conducted in previous years were not well organized and not based on specific research questions. Those experiences contributed to the design of the questionnaire. In addition,some items were adapted from existing questionnaires used in previous studies similar to the current one (Arık, 2002;Güler, 2004), since they were found appropriate and useful for the current study.

In the questionnaire, there are 64 items arranged around five basic questions (See Appendix). Five sections are based on Likert-scale questions, and an open-ended question is given at the end of the questionnaire asking about other issues that the participants found important to add apart from the ones listed in the questionnaire.

After the first question, which asks for the faculties and departments of participants, the subsequent question asks participants to rate the most required skill among reading, writing, speaking, translation and listening for the content area courses. The other four sections are based on the activities/tasks related to four skills: speaking (Question 3), listening (Question 4), reading (Question 5), and writing (Question 6).

Interviews

Mackay (as cited in Jordan, 1997) suggests that interviews can serve as a useful support for questionnaires when certain issues need clarification. For those reasons, the researcher preferred using both questionnaires and interviews in order to find the answers of research questions in the current study. The interviews had only one question. The heads of the departments reported on the most required skill for content area courses through this question. The purpose of conducting interviews was to have a basis in order to justify the results of questionnaires in the determination of most required skill. For that reason, asking only one question would be sufficient to accomplish the goal of conducting interviews.

The questionnaires were used in order to reach more people in the study and interviews were conducted to support questionnaires. Two different methods to collect data were used in the study to increase the reliability and validity of the research.

Procedures

The process of data collection in the study began with the preparation of the questionnaire in English in early February. It was examined by the students in MA TEFL program 2006 at Bilkent University to see if overlapping items existed. Based upon their recommendations, some items were changed and excluded. After these revisions, the questionnaire was translated from English to Turkish by the researcher himself. The translation was checked by the students in the program and comparisons were made between the versions. Due to the feedback on the translation of questionnaire, some questions and items were revised.

The Turkish version of the questionnaire was piloted on 15 February 2006 with 6 content area teachers in the Chemistry, and the Statics Departments at Hacettepe University, which is an English medium institution in Turkey. The feedback from the pilot study was quite positive. Some teachers in the pilot study reported that some tasks asked in the questionnaire were not appropriate for the department, such as writing lab reports and writing descriptions of experiments. However, since the study was to be conducted in fourteen different departments at KTU, these items were not changed. Some revisions were made due to the feedback after the pilot study.

On 17 February 2006, the researcher asked for official permission to conduct the study from School of Foreign Languages at KTU. After getting official permission, appointments were made with the heads of departments to have interviews, and questionnaires were distributed on 20 February 2006. In larger departments, the questionnaires were distributed with the help of department secretaries. The questionnaires were collected from department secretaries on 3 March 2006 by the researcher himself. The interviews were conducted between the 17th of February and 3rd of March 2006.

Data Analysis

The answers given to the items in questionnaires were analyzed using The Statistical Packages for Social Sciences (SPSS 10.0).

The interviews were transcribed and translated into English. In the process of interview analyses, the discourse excerpts which revealed the most important skill were taken into consideration.

CHAPTER IV: DATA ANALYSIS

Overview of the study

This study was conducted in order to determine the academic English requirements of English medium departments at Karadeniz Technical University (KTU) for CBI applied in prep classes. As the primary aim, the study investigated which skill, among reading, writing, speaking, listening and translation, has the highest priority for the English medium departments at KTU. A secondary aim of the study was to determine the importance of specific language tasks and activities related to the skill of reading, writing, listening, and speaking for all departments teaching content area courses 30 percent in English.

Data Analysis Procedures

In the study questionnaires were given to the content area teachers in thirteen departments, and interviews were conducted with the heads of thirteen English medium departments. 128 questionnaires out of 185 were completed by content area teachers. As described in Chapter three, the questionnaire consisted of 62 items organized around six sections, four of which consisted of subitems related to four skills: reading, writing, listening and speaking. The purpose of the interviews was to determine the most required skill in the opinions of heads of departments.

The interviews were transcribed and excerpts were used in the data analysis for individual departments.

In this chapter, the quantitative data collected by the questionnaires and analyzed by using The Statistical Packages for Social Sciences (SPSS 10.0) are given in three sections and include calculations of percentages, frequencies, means and variances. Excerpts from the interviews are given in order to in addition to the quantitative data from the questionnaires.

The first section includes on the analysis of the data collected in order to determine the most required skill for all departments by giving the results from the questionnaires, including percentages, means, variances and significance of differences. The second section covers the analysis of the most required skill for each department, which is determined by the help of means. The third section presents an analysis of data in terms of specific language tasks and activities within each of the skill categories defined above. In addition to this, One way ANOVA tests were applied on all subitems in order to see whether there was a significant difference in the choices of participants from different departments. Further analysis using Crosstabs and Scheffe tests was done to confirm the variation and see the distribution of responses according to departments.

The scale given below was used while interpreting the means in the tables:

Likert-scale Choice Scale (Arık, 2002; Güler, 2004)

1) Not Important : values between 1.00 and 1.80

2) Not very important: values between 1.81 and 2.60

3) Important: values between 2.61 and 3.40

4) Fairly Important: values between 3.41 and 4.20

5) Very Important: values between 4.21 and 5.00

In order to find out the reliability coefficient of the questionnaire, a Cronbach's alpha was calculated and a value of 0.860 was found, which shows a high reliability of the questionnaire itself. The next section covers the analysis of results to determine the most required skill for all departments.

The most required skill for all departments

In this section, the data gathered by Question 2 in order to determine the most required skill for all departments are analyzed and interpreted. In the question, there are five skills: reading, writing, listening, speaking and translation, given in Likert-scale from not important (1) to very important (5).

The content area teachers were asked to state to what extent these skills are important for their content area courses. Table 2 shows the analysis of question 2 giving the means, variances and significance of differences among the departments. The data are interpreted according to the means of each item; percentages are used to make further interpretations about the results. The items having significance of difference are examined by the help of Crosstabs, and the results are discussed according to the responses of departments. The aim of this section is to determine the most important skill when all departments are considered. Table 2 below shows the results presented in rank order, with the skill given the highest ranking presented first.

Table 2

The most required skill for all departments

Skill	NI	NVI	I	FI	VI	n	m	F	sig.
Reading	1	1	21	30	75	128	4.38	1.185	.302
	.8	.8	16.4	23.4	58.6	100			
Listening	1	2	30	34	61	128	4.19	2.532	.005*
	.8	1.6	23.4	26.6	47.7	100			
Translation	8	0	30	35	55	128	4.07	.948	.503
	6.3	0	23.4	27.3	43.0	100			
Writing	0	1	25	67	35	128	4.06	.248	.995
	0	.8	19.5	52.3	27.3	100			
Speaking	2	8	34	49	35	128	3.84	3.794	.000*
	1.6	6.3	26.6	38.3	27.3	100			

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important n : Number of participants m : mean F: variance sig: Significance of difference *p< .05

When we interpret Table 2 in order to see which skill among reading, writing, listening, speaking and translation has the most priority for content area courses from the content area teachers' point of view according to all departments, we see that means varying between 4.38 and 3.84 indicating that all the skills are thought to be either fairly important or very important. However, it is seen that reading has the highest priority, indicating that it is very important in the opinions of all respondents, for content area courses. When the percentages of responses given to reading are examined, 75 of 128 content area teachers, which constitutes 58.6 percent of all, reported it to be very important.

After reading, listening is thought to be the second important skill for content area courses given in English medium departments. The percentages show that 74.3 percent of all content area teachers reported that they considered listening either fairly important or very important, which can be interpreted as fairly important according to the mean value.

Translation was thought to be the third important skill for content area courses according to content area teachers.The percentages indicate that 70.3 percent of all content area teachers reported it as either fairly important or very important. However, 6.3 percent of content area teachers stated it to be not important.

After translation, with little difference in the mean, writing is the fourth important skill. It has the mean value 4.06 and 52.3 percent of content area teachers reported it as important.

Speaking, which is at the end of the list, which shows that content area teachers do not report speaking as very important and it is not as required for content area courses as the other skills.

In addition to the interpretations of means in determining what was considered to be the most required skill, when we examine the ANOVA test results given as variances and significance of difference in Table 2, it is seen that the answers given for listening and speaking have variances with significance of difference value .000 and .005, due to different responses from departments. By means of Crosstabs, a multiple comparison in the distribution of responses was made in order to see which department caused this difference. Table 3 and 4 show the results of this analysis.

Table 3

The responses given regarding the importance of listening skill

Department	NI	NVI	I	FI	VI	Total
Computer E.	-	-	-	2	3	5
Biology	-	-	-	5	3	8
Electric and E. E.	-	-	3	2	-	5
Physics	-	-	-	-	6	6
Maritime T. E.	-	-	-	1	7	8
Civil E.	1	1	8	4	6	20
Geodesy and P. E.	-	-	2	2	5	9
Geological E.	-	-	3	-	3	6
Public Adm.	-	-	-	-	3	3
Chemistry	-	1	6	5	9	21
Mechanical E.	-	-	3	7	8	18
Forestry E.	-	-	5	5	6	16
Int. Relations D.	-	-	-	1	2	3
Total	1	2	30	34	61	128

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important

As can be seen from Table 3, the responses given to listening skill from the Physics, Maritime Transportation and Management and Public Administration Departments differ significantly according to the frequencies of responses. Whereas most of the content area teachers in different departments state listening to be either important or fairly important, in the Physics and Public administration Departments, all content area teachers state their belief that listening is very important, and this causes a significant difference in the responses given to this item. In addition to this, 88 percent of content area teachers in Maritime T. and M. Department say listening is very important.

Table 4

The responses given regarding the importance of speaking skill

Department	NI	NVI	I	FI	VI	Total
Computer E.	-	-	-	4	1	5
Biology	-	-	2	2	4	8
Electric and E. E.	-	-	3	2	-	5
Physics	-	-	1	3	2	6
Maritime T. E.	-	-	-	-	8	8
Civil E.	2	2	7	6	3	20
Geodesy and P. E.	-	-	1	2	6	9
Geological E.	-	1	1	3	1	6
Public Adm.	-	-	-	3	-	3
Chemistry	-	4	9	5	3	21
Mechanical E.	-	-	5	13	-	18
Forestry E.	-	1	5	5	5	16
Int. Relations D.	-	-	-	1	2	3
Total	2	8	34	49	35	128

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important

In addition to listening, responses of content area teachers regarding speaking skill differ significantly. In Table 4 we see the distribution of responses which indicates that the variation arises from the responses of Maritime Transportation and Management Department and Geodesy Department. All the content area teachers (100%) in Maritime T. and M. Department state that they believe speaking is very important, in addition to that, 6 out of 9 content area teachers (67%) in Geodesy Department state that speaking is very important.

Summary

As can be seen in the results discussed above, reading has the priority for all content area instructors. This shows that teachers felt that of all the skills required for content area courses, it is the most important for students to be good at reading. From this point of view, the program in prep classes might consider the importance of

reading in order to meet the needs of students and to strengthen the content-based curriculum in the light of perceived needs. In addition, the data collected reveal the perceived importance order of five skills given in the questionnaire; the results can serve a basis for curriculum renewal projects by showing the perceived importance rate of skills to be considered.

Results of the most required skill for individual departments

This section focuses on the perceived most required skills for each department, and the interpretation of data is done according to the means of each skill determined by the responses given by content area teachers in the departments. In addition to this, interviews are taken into consideration in the determination of perception of the most required skill, since the interviews are specifically based on that. The interviews were translated from Turkish to English by the researcher.

The data collected from content area teachers by the help of questionnaires and from heads of departments by the help of interviews were analysed in accordance with the classification according to the departments, and in this section the interpretation of data is done for each department one by one. While discussing the data from each department, some similarities in the means or in the order of skills among the departments are also discussed to make some generalizations.

In table 5 below, the analysis of question based on the determination of most required skill according to departments is given. The question consisting of five items in a Likert-scale having an order from (1) “not important” to (5) “very important” was analyzed, and the means were interpreted according to the scale given in chapter three.

Table 5

The most required skill according to individual departments

Departments	Reading	Writing	Listening	Speaking	Translation
Computer E.	5.00	4.00	4.60	4.20	4.20
Biology	4.00	4.00	4.38	4.25	3.88
Electric and E. E.	4.40	3.80	3.40	3.40	3.40
Physics	4.17	4.00	5.00	4.17	4.17
Maritime T. E.	3.88	4.00	4.88	5.00	3.88
Civil E.	4.50	4.20	3.65	3.30	4.45
Geodesy and P. E.	4.44	3.89	4.33	4.56	4.33
Geological E.	4.00	4.17	4.00	3.67	4.17
Public Adm.	5.00	4.33	5.00	4.00	4.33
Chemistry	4.19	4.14	4.05	3.33	3.67
Mechanical E.	4.61	4.00	4.28	3.72	4.11
Forestry E.	4.50	4.06	4.06	3.38	4.13
Int. Relations D.	4.67	4.00	4.67	4.67	4.33
Mean	4.38	4.06	4.19	3.84	4.07
F	1.185	.248	2.532	3.794	.948
Sig.	.302	.995	.005	.000	.503

Note. 1 : not important 2 : not very important 3 : important 4 : fairly important 5 : very important m : mean F: variance sig: Significance of difference *p< .05

As seen in Table 5, the responses given by the teachers in Computer Engineering Department to the question based on the determination of their perception of the most required skill reveal reading to be the most required skill compared to the others, with a mean value 5.00. After reading, listening was thought to be the second skill, with mean value 4.60 that requires importance in the content area courses given at Computer Engineering Department. Speaking and Translation have the same importance for

the department as the third skills, and writing has the least priority, according to the responses, having mean value 4.00, which indicates the skill to be thought fairly important.

According to the interview, reading is thought to be the most important skill for the students studying in Computer Engineering Department.

> We, the content area teachers, expect the students to be familiar with the content area texts and vocabulary before they begin to take content area courses because reading is very important for our students in order to understand content area text books and to be successful in content area courses. All of them depend on reading, students should be able to comprehend what they read, although it is required, the students do not have so many chances to improve listening skill. (Assistant Prof. Dr. Hüseyin Pehlivan, Computer Engineering Department)

According to the content area teachers in Biology Department, with a high mean value 4.38, listening is thought to be the most required skill, as it is in Physics Department. Speaking is reported to be the second important skill. Both reading and writing, having the same mean value 4.00, are thought to be the third required skills for content area courses. Apart from these, the last skill, considered the least important, is translation.

Supporting the results of the questionnaires, the interview conducted also reveals that listening and speaking are considered the most important skills in the Biology Department.

> Reading is not very important. The students should be able to understand and convey what they know. Listening and speaking are more important than other skills. Writing seems to be less important than those because we only ask the students to write a few words in the exams or in some courses. (Assoc. Prof. Dr. Sema Ayaz, Biology Department)

For Electric and Electronic Engineering, reading, with a 4.40 high value, has the most priority. Listening follows reading, having mean value 3.80. However,

the other three skills were not rated as important as reading and listening, but as having the same importance according to the responses, with the same mean value, 3.40.

When we examine the interview, reading and writing are said to have the most priority for content area courses in Electric and Electronic Engineering.

> The most required skills for our content area courses are reading and writing, since our content area course materials are mostly in English, the students should be able to read these materials and they should be able to write what they know to be successful in the exams. If they want to participate in the classroom discussion, the students should be able to speak and understand what is said. (Asst. Prof. Dr. Halil Ibrahim Okumuş, Electric and Electronic Engineering)

Listening has the most priority for Physics Department, when the means are compared, it has the highest value, 5.00, indicating it to be very important for content area teachers. However, three skills, reading, speaking and translation, have the same means, 4.17, showing that they are thought to be fairly important. Writing has the least importance among five skills, according to the content area teachers in the department.

Being parallel with the questionnaire results, listening and reading are reported by the head of Physics Department to be the most required skill for content area courses in the interview.

> First of all, the students should be able to comprehend and understand what they read and hear. After these, they should be able to write, but, as I said, writing is the second stage, the first stage is understanding what they hear and read. (Prof. Dr. Mustafa Altunbaş, Physics Department)

The means given to the question show that speaking is considered the most required skill for content area courses in Maritime Transportation and Management Engineering. It has the highest value 5.00.

As seen in Table 5, speaking is considered the most required skill for content area courses in Geodesy Department, as it is in Maritime T and M. Department. Listening is reported to be the second important skill, having a lower means, 4.88, than speaking. According to the content area teachers, writing is the third important skill, indicating that it is fairly important for the courses. Both reading and translation have the same means 3.88, and it is also reported to be fairly important.

As reported by the head of Maritime Transportation and Management Engineering in the interview, with an exception, speaking is considered the most required skill for the courses in the department, whereas reading is considered the most required skill for many other departments.

> We have an exception in English-medium departments because some of our courses are organized according to the requirements of International Maritime Organization. The students studying in our department need be good at speaking and writing, since our practices are usually based on those two skills. Although it is thirty percent English medium, we always use the English terms. There are some strict rules that the captains must obey, such as introducing yourself when you are in the borders of other countries. If you cannot, they tie your motor vessel. That is why speaking is the most required skill. I do not mean having good grammar and pronunciation, but being good at technical terms. In addition to this, writing is required for our students, and we teach them how to write some specific genres and also to fill out some forms. We have one year long practicum during the education and these are all carried out in international waters. English is very important for our department, especially speaking skill. (Assistant Prof. Dr. Ersan Başar, Maritime Transportation and Management Engineering Department)

When it is asked to the content area teachers working in Civil Engineering Department which skill has the most priority for content area courses, the responses show that reading is thought to be the most important skill. After reading, translation is thought to be the second important skill. Both reading and translation are very important for the department. Writing is reported to be fairly important, with a mean 4.20 among other general language skills. Listening follows writing, having a lower

mean value, 3.65, indicating that it is thought to be fairly important for content area courses. The least required skill is reported to be speaking.

If we interpret the interview conducted in the Civil Engineering, we see that similar to the questionnaire results, reading is the most required skill. However, when the data collected by the questionnaire are analyzed, it is seen that the translation is the second important skill, but in the interview, translation is reported to be not important.

> If you ask me to rank the skills, I would give five to reading and listening whereas I give four to speaking. I have given vocational language courses both in Mechanical Engineering and Civil Engineering Departments, as far as I have seen, the students think that translation is very important for their content area courses, but I believe that it is not important to be able translate the texts. The students should be able to comprehend them when they read. (Prof. Dr. Hasan Sofuoglu, Civil Engineering)

According to the means from Geodesy and Photogrammetry Engineering, speaking is thought to be the most important skill. After speaking, with a little difference in the means, reading is the second important skill. When we consider the results in Table 5, we see that reading is the second important skill for Physics Department. Translation and listening have the same mean values of 4.33, showing that they are the third skill in the rank order determined according to the means. With the least mean, writing is the last skill reported to be fairly important for content area courses in the department from content area teachers' point of view.

Although the professor reports that the students should be good at reading, according to the interview, speaking is thought to be the most important skill for content area courses in the department, but as we see in the questionnaire results, there is a little difference between the means of speaking and reading. Reading is

thought to be the second important skill for Geodesy and Photogrammetry Engineering.

> The students should be good at reading and then they should be good at writing what they know. (Assoc. Prof. Dr. Çetin Cömert, Geodesy and Photogrammetry Engineering)

In the Geology Department, both writing and translation are equally considered the most required skills for content area courses from the content area teachers' point of view, both having the same mean value 4.00. After these skills, both reading and listening are the second most important skills for the department according to the results from responses. Speaking is the least required skill according to its mean value. When an interview was conducted with the head of the department, he reported that there was a general need of English in content area courses. No specific data related to the question of most required skill were reported during the interview, and it was not included in the data analysis.

Reading and listening have the most priority for content area courses in Public Administration Department, with mean value 5.00, which shows that they are thought to be very important. Similar to this, having the same mean values, the results in Physics Department show that listening is thought to be the most important skill for the department. Apart from these, writing and translation have the same mean value, showing that they are considered very important in the department after reading and listening. Speaking has the least priority according its mean. The interview in the Public Administration Department did not reveal any signs in determining the most required skill for the department, and no data from the interview were included.

For the Chemistry Department, when the means are compared, it is seen that reading is considered the most important skill. After reading, with little difference in the mean value, writing is considered the second important skill for Chemistry Department. After these, listening is reported to be the third important skill, and translation is the fourth in the rank order according to the means. The least required skill is thought to be speaking. It has a mean value 3.33, showing that it is important for content area courses from the content area teachers' point of view working in the department.

The interview with the head of Chemistry Department confirms that reading is the most important skill for content area courses. In addition to this, the stress on writing is also reported in the interview as it is the second important skill according to the questionnaire results.

> Since the courses are not based on speaking, the most important and required skill for me is reading and comprehension. When is speaking required? If the education is based on the practice, in this case speaking would be important. In our department, although we have laboratories, due to lack of resources we cannot recruit assistants who have English, that is why speaking is not required so much. Some courses are based on writing and the students are asked to write in English. In some exams, we allow the students to use dictionaries to write better. (Prof.Dr. Nurettin Yayli, Chemistry Department)

In the Mechanical Engineering Department, when we compare the means, we see that they are all different from each other, varying between 3.72 and 4.61. Reading has the highest mean value indicating that it is the most required skill for content area courses for the Mechanical Engineering Department. After this, listening is reported to be the second most important skill. According to the responses given to the questionnaire, the means show that translation is considered the third important skill for the department. Writing is considered the fourth most

required skill compared to the other skills. The least required skill for the Mechanical Engineering Department from the content area teachers' point of view is speaking. We see in the interview conducted in the Mechanical Engineering Department that reading and listening are both reported to be important for content area courses.

> First of all, students should be able to understand what they hear during the course, and they should be able comprehend the text they read in order to be successful in their content area courses. Although there is always a discussion on teaching content area courses in English we cannot find the up-to-date content books in Turkish. That is why studying content area courses from the ones published in English gives our students the opportunity to keep up with the technological innovations in their area. When you ask the students, they think translation to be very important but I do not agree and I always tell them not to deal with the translation but try to understand the texts in the books to get the main idea or others. If we talk about their future careers and professions, they will not be as passive as they are at the university because they will have to convey what they know about their profession. In this case writing and speaking will be as important as reading and listening, but for the content area courses they take at university level, as I said at the beginning of the interview, first of all, they should be able comprehend what they read and then understand what they hear. (Assoc. Prof. Dr. Orhan Aydın, Mechanical Engineering)

When the responses given by Forestry Engineering Department are compared, it is seen that reading is considered the most important skill. After reading, translation is considered the second important skill for content area courses in Forestry Engineering Department. However, writing and listening have the same mean value, 4.06, which makes them considered the third important skills among others. When the results are examined in terms of writing skill, it is in the same place for Mechanical Engineering Department. The least important skill for the department is speaking. The interview in Forestry Engineering Department reveals the importance of reading and its priority among other skills.

> Reading is the most required skill. I always tell my students and research assistants that the more they read the better their writing, listening and speaking would be. Especially, I do not expect them be very good at speaking or listening, but the only thing very crucial for our courses is reading. (Prof. Dr. Emin Zeki Başkent, Forestry Engineering)

In the International Relations Department, three skills; reading, listening and speaking have the same mean value, 4.67, which indicates that they are equally very important for the department. Similar to this, speaking is the third skill in the Physics Department. After these, translation is reported to be important, and writing is the least required skill for the International Relations Department. Although three skills, reading, listening and speaking, have the same mean value as being considered most required skills, the interview with the head of International Relations Department presents reading to be the most important skill for the department courses.

> The students do not have the habit of reading and this leads to the lack of comprehension. Reading is the most important skill for our courses. The students should be not only successful readers but also they should be good at understanding the main idea, analyzing the text, and drawing conclusions. (Assoc. Prof. Dr. Gökhan Koçer, International Relations Department)

Summary

The interpretation of data shows that there are different perceived needs in terms of departments. The results discussed in this section help us to have a deeper understanding of the needs of English-medium departments. From this point of view, the results give us a clearer picture of perceived needs when the departments are individually focused on. While the general view of the needs was discussed in the previous section, analysis of the data individually according to the departments shows which departments have specific needs giving a broader perspective to be considered in curriculum development projects in prep classes. As seen in the interpretations of data, the interviews support the results of questionnaires. On the other hand, the contrasting results of questionnaires and interviews express the rightfulness of conducting interviews in addition to the questionnaires in order to see the picture clearly.

Results of the most required activity or task related to four skills

In this section, data attempting to determine the importance of activities/tasks related to four skills are interpreted (questions 3-6 on the appendix). The data in the tables present the means and percentages of frequencies. The items in the tables are organized according to the means in rank order from the most important to the least important. The results are interpreted according to the means of responses and the percentages. In addition to this, the significant differences determined by the help of One-way-ANOVA tests are interpreted according to Crosstabs and discussed.

The importance of activities and tasks related to speaking

This section presents an analysis of the responses of content area teachers in determining the most required and important tasks, activities related to speaking. The question consists of 13 items. The list given in Table 6 is organized according to the means in rank order from the most important to the least important.

Table 6

The responses given for the importance of activities and tasks related to speaking

Speaking	NI	NVI	I	FI	VI	n	m	F	sig.
conveying the message	0	2	32	40	54	128	4.14	1.518	.128
while speaking	0	1.6	25.0	31.3	42.2	100			
asking and answering	2	3	29	52	42	128	4.01	.633	.810
questions in class	1.6	2.3	22.7	40.6	32.8	100			
using academic vocabulary	3	4	33	51	37	128	3.90	1.444	.156
while speaking	2.3	3.1	25.8	39.8	28.9	100			
intelligibility/comprehensibility	1	6	39	49	33	128	3.84	1.248	.260
while speaking	.8	4.7	30.5	38.3	25.8	100			
speaking to foreigners	3	9	34	46	36	128	3.80	2.215	.015*
about their subject	2.3	7.0	26.6	35.9	28.1	100			
participating in classroom	4	10	37	43	34	128	3.73	.868	.581
discussions	3.1	7.8	28.9	33.6	26.6	100			
making presentations/	3	7	43	45	30	128	3.72	.637	.807
presenting oral reports	2.3	5.5	33.6	35.2	23.4	100			
speaking in the seminars	3	14	34	43	34	128	3.71	.952	.499
	2.3	10.9	26.6	33.6	26.6	100			
fluency / accuracy in	2	5	60	42	19	128	3.55	1.921	.039
speaking	1.6	3.9	46.9	32.8	14.8	100			
speaking in informal daily	5	16	44	45	18	128	3.48	2.066	.024
life situations	3.9	12.5	34.4	35.2	14.1	100			
grammatical accuracy	1	19	55	35	18	128	3.39	.678	.769
while speaking	.8	14.8	43.0	27.3	14.1	100			
pronunciation / accent in	2	23	50	39	14	128	3.31	1.325	.214
speaking	1.6	18.0	39.1	30.5	10.9	100			

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important n : Number of participants m : mean F: variance sig: Significance of difference *p< .05

When the results in Table 6 are examined, it is seen that the means vary between 4.14 and 3.31, showing that the items in the list lie between the degree of important and very important.The most important item, according to the means, is conveying the message while speaking. When the percentages are considered, a great majority of content area teachers (73.5 %) reported their opinion that conveying the message while speaking was either fairly important or very important. Asking and answering questions in class follows it as the second most important item related to speaking. The number of responses given to the first two items is equal in terms of

their importance as being very important or fairly important. Since more respondents reported conveying messages as considered very important, this category has a higher means than asking/answering questions. These indicate that the perceived basic requirement related to speaking skill is that students should express themselves during the courses either by asking and answering questions or conveying the message while speaking. According to the results, we can conclude that the content area teachers do not find that having a good pronunciation and accent is very important. Among the items, pronunciation and accent in speaking is at the end of list, showing that it is seen as the least important skill related to speaking. This can be interpreted as content area teachers thinking that the students do not need to have a standard accent or pronunciation. The main concern is to convey the message either by asking or answering questions in the class. In Table 6, grammatical accuracy while speaking is not reported as important as inteligibility/comprehensibility while speaking. This result shows us that the content are teachers think that the things the students say may not be grammaticaly correct, but they should be comprehensible. In addition to these, the means show that three items are very close to each other when their perceived importance is considered. Participating in classroom discussions, making presentations/presenting oral reports and speaking in the seminars are the items which are reported to be fairly important for content area courses but have little difference in the means with each other. This result shows us that they are perceived to have the same importance for content area courses.

According to the ANOVA test results given as variances and significance of difference in Table 6, one item has a significance of difference among the items in the question: “speaking to foreigners about their subjects” differs significantly

according to its importance in the departments. In order to see the distribution of responses from different departments, a Crosstabs test was done, the results of which are given in Table 7.

Table 7

The distribution of responses given to speaking to foreigners about the subject

Department	NI	NVI	I	FI	VI	Total
Computer E.	-	-	-	2	3	5
Biology	-	1	2	5	-	8
Electric and E. E.	-	-	5	-	-	5
Physics	-	-	2	2	2	6
Maritime T. E.	-	-	1	-	7	8
Civil E.	2	-	6	9	3	20
Geodesy and P. E.	-	-	2	4	3	9
Geological E.	-	1	1	1	3	6
Public Adm.	-	-	-	1	2	3
Chemistry	1	7	3	4	6	21
Mechanical E.	-	-	6	8	4	18
Forestry E.	-	-	5	8	3	16
Int. Relations D.	-	-	1	2	-	3
Total	3	9	34	46	36	128

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important

The results in Table 7 show that the variation in item "speaking to foreigners about the subject" arises from the responses given by two departments: Maritime Transportation and Management and Chemistry Departments. Seven out of eight respondents (88%) in the Maritime T. and M. Department state the item to be very important and or not very important, whereas 63 percent of content area teachers in the overall study state it to be important or fairly important. In addition to this, 13 out of 21 content area teachers report that "speaking to foreigners" is either very important or not very important.

The Importance of Activities and Tasks Related to Listening

This section looks at the responses of content area teachers in determining the most required and important tasks, and activities related to listening. The question consists of 6 items. The list given in Table 8 below is organized according to the means in rank order from the most important to the least important.

Table 8

The responses given to activities and tasks related to listening skill

Listening	NI	NVI	I	FI	VI	n	m	F	sig.
understanding words,expressions	0	1	16	45	66	128	4.38	1.222	.276
in Eng. used in the lectures	0	.8	12.5	35.2	51.6	100			
understanding instructions given	0	2	24	58	44	128	4.13	.973	.479
in English in the lectures	0	1.6	18.8	45.3	34.4	100			
understanding foreigners studying	1	13	37	37	40	128	3.80	1.309	.223
the same discipline	.8	10.2	28.9	28.9	31.3	100			
understanding seminars/	0	4	48	47	29	128	3.79	.601	.837
presentations in English	0	3.1	37.5	36.7	22.7	100			
understanding materials in	0	21	40	49	18	128	3.50	1.637	.091
English (e.g.video programs)	0	16.4	31.3	38.3	14.1	100			
understanding daily life	0	17	51	44	16	128	3.46	2.559	.005*
conversations	0	13.3	39.8	34.4	12.5	100			

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important n : Number of participants m : mean F: variance sig: Significance of difference *p< .05

As can be seen from Table 8, the means of responses given in order to determine the importance of activities and tasks related to listening skill vary between 4.38 and 3.46. With the highest mean value, “understanding words, expressions in English used in the lectures” is the most important item in the list. 111 out of 128 content area teachers (86.7 %) reported it to be either fairly important of very important for content area courses. Two items in the list, “understanding foreigners studying the same discipline” and “understanding seminars/presentations in English” are very close to each other according to their means, indicating that they are both fairly important for content area courses.One-way ANOVA test results show

that one item, “understanding daily life conversations”, has a significant difference within itself due to the responses given from different departments. In order to see the distribution of responses from different departments, a Crosstabs test was done, the results of which are seen in Table 9.

Table 9

The distribution of responses given to “understanding daily life conversations”

Department	NI	NVI	I	FI	VI	Total
Computer E.	-	2	1	2	-	5
Biology	-	1	4	2	1	8
Electric and E. E.	-	2	3	-	-	5
Physics	-	-	2	2	2	6
Maritime T. E.	-	-	2	2	4	8
Civil E.	-	1	9	9	1	20
Geodesy and P. E.	-	1	1	5	2	9
Geological E.	-	1	1	3	1	6
Public Adm.	-	1	-	1	1	3
Chemistry	-	8	8	4	1	21
Mechanical E.	-	-	10	7	1	18
Forestry E.	-	-	8	6	2	16
Int. Relations D.	-	-	2	1	-	3
Total	-	17	51	44	16	128

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important

According to the distribution of responses given to the item “understanding daily life conversations” from different departments show that the responses given by Chemistry Department causes significant difference. 8 out of 21 content area teachers (38 %) working in Chemistry Department stated it to be not very important.

The Importance of Activities and Tasks Related to Reading

This section looks at the responses of content area teachers in determining the most required and important tasks, and activities related to reading. The question

consists of 17 items. The list given in Table 10 is organized according to the means in rank order from the most important to the least important.

Table 10

The responses given to activities and tasks related to reading

Reading	NI	NVI	I	FI	VI	n	m	F	sig.
to read lecture handouts	0	0	21	43	64	128	4.34	1.501	.134
	0	0	16.4	33.6	50.0	100			
to read text books	0	0	23	44	61	128	4.30	1.042	.416
	0	0	18.0	34.4	47.7	100			
to recognize terminology	1	2	35	49	41	128	3.99	1.943	.036
while reading	.8	1.6	27.3	38.3	32.0	100			
to make inferences	1	8	26	52	41	128	3.97	1.937	.037
while reading	.8	6.3	20.3	40.6	32.0	100			
to draw conclusions	1	5	27	62	33	128	3.95	1.015	.440
while reading	.8	3.9	21.1	48.4	25.8	100			
to understand logical relations	1	6	36	47	38	128	3.90	1.457	.151
within the text while reading	.8	4.7	28.1	36.7	29.7	100			
to read reference books (e.g.	0	4	44	51	29	128	3.82	.979	.473
encylopedia, dictionaries)	0	3.1	34.4	39.8	22.7	100			
to interpret graphs,	0	10	43	36	39	128	3.81	1.324	.214
charts, tables, etc.	0	7.8	33.6	28.1	30.5	100			
to read for main idea	1	8	39	52	28	128	3.77	.949	.501
	.8	6.3	30.5	40.6	21.9	100			
to read reports	0	5	47	51	25	128	3.75	1.258	.253
	0	3.9	36.7	39.8	19.5	100			
to read on the Internet (e.g. e-mail	1	9	44	50	24	128	3.68	.984	.468
messages, web sites)	.8	7.0	34.4	39.1	18.8	100			
to read articles from weekly	1	14	37	51	25	128	3.66	1.388	.181
magazines/periodicals/journals	.8	10.9	28.9	39.8	19.5	100			
to read instruction	0	12	52	37	27	128	3.62	2.076	.024
booklets / user manuals	0	9.4	40.6	28.9	21.1	100			
to read for specific	0	7	48	64	9	128	3.59	.988	.464
information	0	5.5	37.5	50.0	7.0	100			
to understand the writer's attitude /	1	19	39	43	26	128	3.58	1.865	.046
point of view while reading	.8	14.8	30.5	33.6	20.3	100			
to read for general	1	5	69	42	11	128	3.45	2.753	.003*
information	.8	3.9	53.9	32.8	8.6	100			
to scan for unknown words in	-	23	53	37	15	128	3.34	1.348	.204
general while reading	-	18.0	41.4	28.9	11.7	100			

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important n : Number of participants m : mean F: variance sig: Significance of difference *p< .05

In Table 10, when the responses given to the question asking the importance of tasks and activities related to reading are considered, it is seen that the means vary between 4.34 and 3.34.

Reading lecture handouts is reported to be very important for content area courses by 64 out of 128 (50%) content area teachers and it is the the most important item in the list. Reading text books is the second most important item in the list. According to the data presented in Table 10, reading textbooks is reported as considered very important in content area courses by 61 out of 128 content area teachers (47.6%). The least important item in the list is scanning for unknown words in general while reading.

According to the ANOVA test results given as variances and significance of difference in Table 10, there is a significant difference in the responses given to one item, "to read for general information", with the value .003. In order to determine which department or departments caused this variance Crosstabs were calculated. The distribution of responses from different departments are seen in Table 11.

Table 11

The distribution of responses given to read for general information

Department	NI	NVI	I	FI	VI	Total
Computer E.	-	-	-	1	4	5
Biology	-	-	4	4	-	8
Electric and E. E.	-	1	4	-	-	5
Physics	-	-	2	3	1	6
Maritime T. E.	-	-	6	1	1	8
Civil E.	-	1	8	10	1	20
Geodesy and P. E.	-	-	6	2	1	9
Geological E.	-	-	3	2	1	6
Public Adm.	-	-	1	2	-	3
Chemistry	1	2	13	3	2	21
Mechanical E.	-	1	11	6	-	18
Forestry E.	-	-	10	6	-	16
Int. Relations D.	-	-	1	2	-	3
Total	1	5	69	42	11	128

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important

When the distribution of responses for the item “to read for general information is examined”, we see that there is a significant difference in the responses given by two departments. 4 out of 5 content area teachers (80%) in the Computer Engineering Department state that reading for general information is very important, whereas 87 percent of all content area teachers state that they consider it important or fairly important. Apart from the Computer Engineering Department, the responses of Chemistry Department show a significant difference. The distribution of responses in Crosstabs test shows that 5 out of 21 content area teachers (24%) in the department state that it is not very important, not important or very important “to read for general information”.

The Importance of Activities and Tasks Related to Writing

This section looks at the responses of content area teachers in determining the most required and important tasks, activities related to writing. The question consists of 21 items. The list given in Table 12 below is organized according to the means in rank order from the most important to the least important.

Table 12

The responses given to activities and tasks related to writing

Writing	NI	NVI	I	FI	VI	n	m	F	Sig.
use of academic vocabulary in writing	0 0	4 3.1	37 28.9	39 30.5	48 37.5	128 100	4.02	1.392	.179
to write essays	0 0	3 2.3	31 24.2	57 44.5	37 28.9	128 100	4.00	1.224	.275
to answer short-answer question types in exams	1 .8	4 3.1	30 23.4	56 43.8	37 28.9	128 100	3.97	.929	.521
appropriate use of non-academic vocabulary in writing	0 0	2 1.6	40 31.3	49 38.3	37 28.9	128 100	3.95	2.299	.012
relevance of ideas to the context in writing	2 1.6	6 4.7	39 30.5	49 38.3	32 25.0	128 100	3.80	.838	.611
good expression of the main idea in writing	2 1.6	3 2.3	47 36.7	43 33.6	33 25.8	128 100	3.80	1.767	.062
adequate development of ideas in writing	1 .8	8 6.3	41 32.0	48 37.5	30 23.4	128 100	3.77	1.253	.257
to write business letters/personal letter/CV	2 1.6	12 9.4	38 29.7	44 34.4	32 25.0	128 100	3.72	2.487	.006*
appropriate connections between ideas in writing	1 .8	11 8.6	40 31.3	51 39.8	25 19.5	128 100	3.69	1.410	.171
to prepare presentations	2 1.6	8 6.3	49 38.3	38 29.7	31 24.2	128 100	3.69	1.276	.242
mechanics (spelling, punctuation, format, etc.)	0 0	9 7.0	49 38.3	44 34.4	26 20.3	128 100	3.68	1.406	.173
to write lab reports	5 3.9	5 3.9	44 34.4	47 36.7	27 21.1	128 100	3.67	.960	.491
to write descriptions of experiments	5 3.9	4 3.1	42 32.8	55 43.0	22 17.2	128 100	3.66	.907	.542
sequence of ideas in writing	2 1.6	9 7.0	45 35.2	48 37.5	24 18.8	128 100	3.65	1.581	.107
grammatical accuracy in writing	0 0	7 5.5	54 42.2	45 35.2	22 17.2	128 100	3.64	2.098	.022
to take notes in the class	3 2.3	11 8.6	46 35.9	39 30.5	29 22.7	128 100	3.63	1.540	.120
to write summaries/abstracts	3 2.3	12 9.4	47 36.7	40 31.3	26 20.3	128 100	3.58	1.210	.285
to write research papers	4 3.1	15 11.7	42 32.8	40 31.3	27 21.1	128 100	3.55	1.271	.271
to write projects	3 2.3	13 10.2	46 35.9	43 33.6	23 18.0	128 100	3.55	.453	.946
originality of thoughts in writing	4 3.1	18 14.1	46 35.9	41 32.0	19 14.8	128 100	3.41	1.208	.286
to write critiques of an article	7 5.5	21 16.4	49 38.3	36 28.1	15 11.7	128 100	3.24	.887	.562

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important n : Number of participants m : mean F: variance sig: Significance of difference *p< .05

When the results in Table 12 are considered, we see that the means of items vary between 4.02 and 3.24. The means show that for content area courses, using academic vocabulary is thought to be the most required skill. The percentages indicate that 97 percent of content area teachers report it to be important, fairly important or very important. After this item, writing essays is thought to be the most important skill. However, the percentages of responses for two of these items show similarities, in the first item, 37 percent of respondents reported it to be very important, but 29 percent to be very important in the second item. In third order, we see answering short-answer question types in exam as fairly important. Among the items, writing critiques of an article is the least valued activity.

One-way ANOVA test results given as variances and significance of difference in Table 12 show that there is a significant difference in the responses of departments with the value.006 in writing business letters/personal letter/CV. The results of Crosstabs in Table 13 reveal which departments caused significant difference in the responses.

Table 13

The distribution of responses given to "writing business letters/personal letter/CV"

Department	NI	NVI	I	FI	VI	Total
Computer E.	-	-	1	-	4	5
Biology	-	1	5	2	-	8
Electric and E. E.	-	-	3	2	-	5
Physics	-	-	-	4	2	6
Maritime T. E.	-	-	-	5	3	8
Civil E.	-	1	7	5	7	20
Geodesy and P. E.	-	-	1	4	4	9
Geological E.	-	-	4	-	2	6
Public Adm.	1	-	1	-	1	3
Chemistry	1	7	4	6	3	21
Mechanical E.	-	1	7	7	3	18
Forestry E.	-	2	5	6	3	16
Int. Relations D.	-	-	-	3	-	3
Total	2	12	38	44	32	128

Note. NI : not important NVI : not very important I : important FI : fairly important VI : very important

By considering the data in Table 13, it can be seen that in the responses of four departments there is a significant difference. The responses of Computer Engineering show that 4 out of 5 content area teachers (80%) reported writing business letters/personal letter/CV is very important. In addition to Computer Engineering, 8 content area teachers out of 20 in the Civil Engineering Department state that it is either very important or not very important, contrasting with the general distribution of responses from other departments. When we consider the responses of the Public Administration Department, 2 out of 3 respondents ticked the options very important and not important. The responses of Chemistry Department reveal that 11 out 21 content area teachers find writing business letters/personal letter/CV not important, not very important or very important.

Summary

The results reveal the perceived importance of specific tasks/activivties related to four general skills. Since determination of objectives requires a more focused understanding of the needs, the results discussed above can serve a basis for the curriculum and increase awareness of specific academic needs of learners to form the applications in CBI.

Conclusion

This chapter provided analyses of the data collected by the help of questionnaires and interviews and, including percentages, frequencies, means and variances. The data are presented in three sections. In the first section, the aim was to determine perceptions of the most required general skill for all departments and in the second section, the data collected by questionnaires and interviews were analysed in order to determine the most required general skill for content area courses given in each department from the content area teachers point of view. The percentages, frequencies and means were used for this purpose and also the results were supported by using discourse excerpts from interviews.

The third section was based on items related to four skills. The analysis was consisted of means, percentages, One-way ANOVA tests results, Scheffe tests and Crosstabs. The results of the questionnaire in this section were interpreted according to the means. In order to see whether there is a significant difference between the departments, ANOVA tests were done. When a significant difference was seen, further analysis in order to confirm it and determine which department caused the variance Scheffe test were done and Crosstabs were calculated. The distribution of responses determined by Crosstabs was given in tables.

In the next chapter, the results of data analysed in detail will be discussed and interpreted referring to the research questions. Deductions and inferences will be made in addition to these as a conclusion. The findings will be used to make implications for practical, pedagogical issues and further research studies in the field.

CHAPTER V: CONCLUSION

Overview of the Study

This study investigated the academic English requirements of English-medium departments at Karadeniz Technical University from the content area teachers' and departmental heads' point of view. Data were collected through questionnaires and interviews in thirteen departments, the students of which enroll for one year in the School of Basic English. The analysis of data was based on the interpretations of means and percentages. In addition to these, one way ANOVA tests were applied on all subitems in order to see whether there was a significant difference in the choices of participants from different departments. Further analysis using Crosstabs and Scheffe tests was done to confirm the variation and see the distribution of responses according to departments.

In this chapter, the research questions will be answered by discussing the results of interviews and questionnaires. Percentages, frequencies, means and variances will be taken into consideration in the discussions. And the discussions will be organized according to the order of research questions.

Discussion

Research Question 1: From the content area teachers' point of view what are the Academic English requirements of content area courses in English Medium Departments at KTU?

In order to answer this question, in the questionnaire the content area teachers were asked to rate five skills according to their importance. The results show that content area teachers view reading as the most important skill for content area courses in English medium departments. Since the aim of this study is to form a basis for the curriculum in CBI in prep classes, the results suggest that there should be an emphasis on reading in order to meet the needs of the English medium departments. From this point of view, the results of the study help understand the perceived needs better in order to give a purposeful education in prep classes through CBI. As mentioned in the literature review in Chapter 2, the courses given in CBI should address the learners' academic needs. In a purposeful program, not being aware of the learners needs causes problems in identifying the goals and objectives, in materials development, in testing, and so on.

Following reading, according to content area teachers, listening is reported to be the second important skill. The results showing reading the first and the listening second important skill indicate that the receptive skills are seen as more important that the productive ones. In an interview segment reported in chapter 4, one of the professors reported that the students are not expected to participate actively in content area courses using English compared to the things they do after they graduate, but that they are commonly expected to understand what they hear and read

while taking content area courses. The results of the questionnaire support this statement, and it is seen that the main concern in content area courses according to the results is that students should be able to understand what they read and hear. In addition to these, the results show that writing and translation are both thought to be fairly important for content area courses. The striking thing is that there are courses in prep classes for the improvement of students' translation skills, but translation was never thought to be so important by English teachers. In prep classes, translation is supported by the texts chosen according to the students' departments and it is considered almost as important as writing. The results of this study suggest that more importance might be given to translation in prep classes. However, more research should be done to determine more specifically how this skill is needed in the content area courses.

The results show that speaking is considered to be the least important skill for the courses given in English medium departments. Although it is reported as less important than translation, speaking constitutes one fourth of classes given in prep classes at KTU. The ratio of these courses might be reorganized according to the results of the study.

The results of the current study match to a great extent the similar studies done in the literature. For example, the results of the current study showed reading was viewed as the most important skill for the English-medium departments, studies such as Arık (2002) and Guler (2004), investigating the most required academic English skill in Turkish-medium departments, also revealed that reading is seen as the most important skill.

Research Question 2: To what extent do the reported Academic English requirements of content area courses differ among the English Medium Departments at KTU?

The results show that the vast majority of content area teachers in different departments report that reading is the most important skill for the English-medium departments, the ranking of other skills varies from one department to the other. When the distribution of the responses given to listening and speaking in the determination of most important skill are considered, there are some striking results from a few departments, such as Maritime T. and M. and Geodesy Departments, because while many of the departments report speaking as the least important, these departments report it to be the most important. With the responses given for listening, again some striking results are seen. Most of the departments report listening as the second, third or fourth important skill, but Biology and Physics Departments report listening as the most important skill for the content area courses given in these departments. The overall results in answering the research question investigating to what extent the requirements of content area departments differ among the English medium departments show that the requirements of departments vary from each other, especially when the skills apart from the most required one are considered. This indicates that the students studying in prep classes might need to be proficient in different academic language skills according to their departments and that the current applications in prep classes do not match with the indications of this study, since it is thought that the students of all departments need to be proficient in the same academic language skills.

In addition to this, the contents of language courses are organized according to the departments, but the skills that the students are expected to acquire in the end of

the program do not differ according to department. These mismatches between the results of the study and the applications in prep school support the significance of doing a current needs analysis. When the requirements of each department are considered individually, it can be difficult to come to an agreement on a skill to use as a basis for the curriculum development or renewal projects based in all departments. The requirements may differ among the departments, but the results of this study can be used as a basis to meet the needs, since the classes in the prep classes at KTU are organized according to the departments. Considering the most important skill for each department is a way to meet the needs of the departments. For further understanding, the means from each department can help us to have an overall means of all departments in determining the importance of skills, and the results of the study can be used in identifying the goals and objectives of the prep program.

In addition to this, the range of courses given in prep classes might be reorganized according to the results of the current study, since the current applications do not match with the requirements in terms of the importance given to the academic language skills during the program. The materials might be developed specifically according to the needs of departments in the light of the results of this study. In order to fine-tune the applications in preparatory program according to the results of this study and integrate the requirements of content area courses into the prep classes, the administrators, coordinators, course designers and language teachers can be informed about the outcomes of the study. This may lead to consider how to make changes in the program.

Research Question 3: Which language skills have the most importance for content area courses in English Medium Departments among the reported requirements at KTU?

In order to answer this research question, items related to four skills were given in the questionnaire and the respondents were asked to rate them according to their importance. The items were in separate order according to the skills. The results were interpreted according to their means.

When the data were analyzed, it was seen that the means of the items related to speaking vary between "fairly important" and "important". The responses given to the items related to speaking indicate that the content area teachers do not think "pronunciation/accent in speaking" and "grammatical accuracy while speaking" are as important as "conveying the message while speaking" and "asking/answering questions in class". One implication of these results is that the language teachers should not insisting on the students' using correct grammar structures and pronunciation but expect them to convey message while speaking/answering questions in class. The idea of encouraging students to convey the message can be supported which may lead to high motivation of learners. Furthermore, the content area teachers report that the students' being fluent and accurate in speaking is less important than being intelligible and comprehensible while speaking. "Use of academic vocabulary while speaking" was reported as fairly important for content area courses. This result shows that the application of CBI matches with the perceived needs of departments since the students use a variety of vocabulary related to their departments in the application of CBI.

When the items related to reading are considered, it is seen that the main concern is about reading lecture handouts and text books. However, the content area teachers did not report "reading for specific and general information" as important as "making inferences and drawing conclusions while reading". Similar to the results in speaking sections in terms of the importance of academic vocabulary, content area teachers reported the importance of "recognizing terminology while reading". In the list (see Table 10), "scanning for unknown words in general while reading" is reported as the least important skill.

In addition to these the content area teachers were asked to rate the items related to listening in the questionnaire. The responses show that content area teachers' main concern is the students' understanding words, expressions and instructions given in English in the lectures. "Understanding daily life conversations" was reported to be the least important item related to listening. As the last section, the responses given to the items related to writing show that "using academic vocabulary, writing essays, answering short-answer question types" are more important than others. The responses reveal that the applications and practices in prep classes done through a CBI curriculum support the requirements of content area courses in terms of the perceived need for using and being familiar with the academic vocabulary. The students study texts related to their department in prep courses, and this is thought to improve their academic vocabulary about their departments during the program. Considering the results of this study, use of academic vocabulary in writing might be increased, and this may improve the students both writing skill and academic vocabulary repertory. The responses show that the originality of thoughts is not considered to be as important as relevance of

ideas to the context in writing, and it is seen that one of the main concerns in content area courses is expressing the main idea in a good way. The focus in writing courses can be on these issues, and the results can be considered while reorganizing the curriculum. One of the striking results in this section of the study is that the grammatical accuracy in writing is not

in the upper part of the list, and grammatical accuracy is reported to be less important than the mechanics (spelling, punctuation and format).

Pedagogical Implications

The results of the study indicate that when the requirements of content area courses are considered according to the departments, there are items the perceived importance of which differ according to the department, but most of the items in the questionnaire show similarities in terms of their importance for the English medium departments. In the analysis of some items, in addition to means, percentages and frequencies some further calculations such as Crosstabs were done in order to see the distribution of responses. The results of these analyses revealed that some of the applications done through a CBI curriculum in prep school do not match with the requirements of content area courses, and the curriculum may need to be reorganized considering the results of this study, because the students studying in different departments need to be proficient in different skills. Even though the materials are developed according to the students' departments and the classes are organized according to the students' departments, this does not seem to match the needs of content area courses, since the needs of the departments are not considered individually in prep school. The requirements differing from one department to the other should be considered while identifying the goals and objectives, developing

materials and arranging course hours. In this sense, the current study highlights the different requirements of different departments, and the outcomes might be used in order to fine-tune the program according to the specific needs of departments.

The results suggest that receptive skills may need to be emphasized more than productive skills. A curriculum in which the activities and tasks related to receptive skills occupy a bigger place than the productive ones can be developed. When the overall results are considered, the study shows that reading is reported to be the most important skill for content area courses. Therefore, more importance might be given to reading skill in the courses given in prep school. Another implication of the study is that content area teachers, regardless of their departments, report translation to be more important than it is thought to be by English teachers. A pedagogical implication of this finding is that more importance might be given to translation, since it is not regarded as very important in the curriculum currently being applied in prep school.

The results also revealed that while "pronunciation/ accent and grammatical accuracy" are not thought to be very important, "conveying a message while speaking" is. In addition to this, it is reported that the students' being fluent and accurate while speaking is felt to be less important than being intelligible/ comprehensible. The language teachers working in the prep program can be informed about these outcomes, which can be considered in relation to students carrying out speaking activities in language classes. These results cannot be integrated in the goals and objectives of the program by abandoning teaching grammar and pronunciation, but the teachers working in prep program can be more flexible in error correction than they are now, especially towards the students'

mistakes in pronunciation and grammar while speaking. The number of activities in which the students feel obliged to convey messages can be increased. Among the reading activities, "reading lecture handouts and textbooks" were considered very important. These reports show that studying texts based on the students departments in the language courses given in prep school is an appropriate way to meet the needs for reading in content area course, and these applications can be carried on. In terms of vocabulary in reading, it was the opinion of respondents that recognition of terminology is more important than scanning for unknown words in general while reading. This result also matches with the application of studying texts based on language courses and supports the current application, since the students become familiar with the terminology of content area courses. In terms of listening, by the help of language courses given through CBI curriculum in prep school, the students might be prepared to understand the words/ expressions and instruction given in English in the lectures, since this is reported to be the most important competence related to speaking. One of the striking results of the study is that the grammatical accuracy in writing was not in the upper parts of the list where the items were listed according to their means from highest to the lowest. The result is interesting because grammatical accuracy in writing is one of the important concerns of language teachers working in prep school. This suggests that the teachers might be flexible with the grammar errors in students' writing. The mechanics (spelling, punctuation and format) in writing was reported to be fairly important in the study. It might be recommended that there should be emphasis on spelling, punctuation and format in writing for the students in prep classes.

Limitations of the Study

One of the limitations of the current study was the lack of time. In the study, in order to answer the research questions, interviews were conducted with the heads of English medium departments, and questionnaires were given to the content area teachers. In order to increase the reliability and validity of the study, a few more methods could have been included, and also the number of participants could have been increased by including students into the study.

The content area teachers and heads of departments were the only participants in the study. Determining the needs only from the content area teachers' and heads' point of view might have restricted the study in seeing different aspects and different dimensions of the situation. From the aspect of including more participants, the language teachers working in prep program and the students attending English medium departments or the ones who have graduated from these departments could have been included in the study.

The questionnaires could have been given to the students, and individual or group interviews could have been conducted with them. Moreover, the students currently attending courses could have been asked to keep diaries about the academic English requirements of content area courses while taking these courses. Another limitation of this study was that the Faculty of Medicine did not participate in the study since the administrators of this faculty did not permit the administration of the survey among the content area teachers working there.

Implications for Further Research

Further studies may be carried out from different viewpoints, these studies may be based on the felt or perceived needs of students and students studying in English

medium departments may be asked to keep diaries about the requirements or needs of content area courses. In addition to the current students studying in these departments, the graduates may be asked to report the language requirements they encounter while working. Language teachers may be asked to report the needs of students in order to be successful in the content courses. The results may be compared in terms of students' felt needs and teachers' perceived needs to have broader view on the needs of students in English.

In terms of using a few more methods, classroom observations to see the requirements of content area courses may be conducted, and the text books and assignments in the departments may be examined. These examinations and observations may help to see the requirements of departments objectively and increase the validity and reliability of the study.

Conclusion

The study investigated the language requirements of English medium departments for the CBI curriculum applied at prep school, KTU. The findings of the current study indicated that although there are common features the language requirements of English medium departments differ from one department to the other. By the help of this study, both common and differing academic English requirements of English medium departments were clarified. The study showed that some of the applications done in CBI curriculum being applied at prep school do not match the needs of English-medium departments as determined by the help of this study. The most striking outcome of the study related to this aspect is that the students studying in different departments are thought to need to be proficient in different skills. Although the materials are developed according to the students'

departments and the classes are organized according to the students' departments, this does not seem to be matching with the needs of content area courses since the needs of the departments are not considered individually in prep school, but as a whole.

In a purposeful program involving fourteen different departments, the requirements differing from one department to the other should be considered individually while identifying the goals and objectives, developing materials, and arranging course hours. In this sense, the current study highlighted the different requirements of different departments.

The prep program used as a bridge by students in order to pass to the content area courses, and the foundation of the CBI applied for students' better success at their content area courses can be strengthened only by considering the differing requirements of departments and by reorganizing the curriculum according to the specific needs of departments. Otherwise, hopes for success in meeting the needs of students studying in prep school at KTU are in vain.

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APPENDICES
APPENDIX A
ANKET

Sayın Öğretim Üyesi/Görevlisi,

Karadeniz Teknik Üniversitesi Yabancı Diller Yüksekokulu'nda üç yıldır öğretim elemanı olarak çalışmaktayım. Bilkent Üniversitesi'nde İngilizce Öğretmenliği üzerine yüksek lisans yapmaktayım.

Tezim için KTU'de İngilizce müfredatlı bölümlerde eğitim görmekte olan öğrencilerin akademik çalışmalarında gerekli olan yabancı dil becerileri üzerine ihtiyaç analizi yapmaktayım. Bu konuyla ilgili siz öğretim üyelerinin değerli görüşlerine ihtiyaç duymaktayım. Bu çalışmadan elde edilecek bilgiler, Yabancı Diller Yüksekokulu'nun önümüzdeki yıllarda farklı bölümlerdeki dil ihtiyaçlarını gözönüne alarak yapacağı müfredat geliştirme projesinde kullanılacaktır.

Anketi doldururken isminizi yazmak zorunda değilsiniz. Ayrıca aşağıdaki sorulara vereceğiniz kişisel cevaplarınız kesinlikle gizli tutulacaktır. Bu anketi doldurmanız, vermiş olduğunuz bilgilerin çalışmamda kullanılmasına izin vermeniz olarak yorumlanacaktır. Yapmış olduğum çalışmayla ya da anketle ilgili herhangi bir sorunuz olursa, benimle ya da danışmanımla bağlantıya geçebileceğiniz irtibat adresi aşağıda belirtilmiştir. Yardımlarınız ve değerli zamanınızı ayırdığınız için çok teşekkür ederim.
Saygılarımla.

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1.Karadeniz Teknik Üniversitesinde halen hangi fakülte ve bölümde ders vermektesiniz?

Fakülte Adı : _____

Bölüm Adı :_____

2. Aşağıdaki İngilizce Dil Becerileri bölümünüzdeki öğrencilerinizin akademik çalışmalarında başarılı olabilmeleri için ne derece önemlidir ? Lütfen her soru için yanındaki ilgili kutucuğa (X) işareti koyunuz.

1.Önemli Değil 2. Çok Önemli Değil 3.Önemli 4. Oldukça Önemli 5. Çok Önemli

OKUMA	1	2	3	4	5
YAZMA	1	2	3	4	5
DİNLEME	1	2	3	4	5
KONUŞMA	1	2	3	4	5
ÇEVİRİ	1	2	3	4	5

3. Öğrencilerinizin bölüm dersleri ile ilgili çalışmaları için aşağıdaki konuşma becerileri ne kadar önemlidir? Lütfen bu soruyu aşağıda verilen sıralamaya uygun olarak ve bu sıralamadaki rakama karşılık gelen kutucuğu (X) işaretleyerek cevaplayınız.

1.Önemli Değil 2. Çok Önemli Değil 3.Önemli 4. Oldukça Önemli 5. Çok Önemli

SA	Sınıf içi tartışmalara katılmak	1	2	3	4	5
SB	Sorular sormak ve yöneltilen sorulara cevap vermek	1	2	3	4	5
SC	Raporlar sözlü sunmak ve sunum yapmak	1	2	3	4	5
SD	Seminerlerde konuşma yapmak	1	2	3	4	5
SE	Günlük konuşma dilini kullanmak	1	2	3	4	5
SF	Yabancılarla kendi alanı ile ilgili konuşmak	1	2	3	4	5
SG	Genel (akademik olmayan) kelimeleri kullanmak	1	2	3	4	5
SH	Bilim dalıyla ilgili akademik kelimeler kullanmak	1	2	3	4	5
SI	Konuşurken dil bilgisini doğru kullanmak	1	2	3	4	5
SJ	Konuşurken telaffuz, vurgu ve aksana dikkat etmek	1	2	3	4	5
SK	Akıcı ve doğru konuşmak	1	2	3	4	5
SL	Anlaşılır ve açık konuşmak (konunun anlaşılırlığı)	1	2	3	4	5
SM	Anlatmak istediği düşünceyi ifade edebilmek	1	2	3	4	5

4. Öğrencilerinizin bölüm dersleri ile ilgili çalışmaları için aşağıdaki dinleme becerileri ne kadar önemlidir? Lütfen bu soruyu aşağıda verilen sıralamaya uygun olarak ve bu sıralamadaki rakama karşılık gelen kutucuğu (X) işaretleyerek cevaplayınız.

1.Önemli Değil 2. Çok Önemli Değil 3.Önemli 4. Oldukça Önemli 5. Çok Önemli

LA	Derslerde kullanılan İngilizce kelime ve terimleri anlamak	1	2	3	4	5
LB	Ders süresince verilen sözlü İngilizce talimatları anlamak	1	2	3	4	5
LC	Günlük konuşmaları anlamak	1	2	3	4	5
LD	İngilizce seminerleri ve sunumları anlamak	1	2	3	4	5
LE	İngilizce video ve televizyon programlarını anlamak	1	2	3	4	5
LF	Aynı alanda çalışan yabancıların konuşmalarını anlamak	1	2	3	4	5

5. Öğrencilerinizin bölüm dersleri ile ilgili çalışmaları için aşağıdaki okuma becerileri ne kadar önemlidir? Lütfen bu soruyu aşağıda verilen sıralamaya uygun olarak ve bu sıralamadaki rakama karşılık gelen kutucuğu (X) işaretleyerek cevaplayınız.

1.Önemli Değil 2. Çok Önemli Değil 3.Önemli 4. Oldukça Önemli 5. Çok Önemli

RA	Ders notlarını okumak	1	2	3	4	5
RB	Ders kitaplarını okumak	1	2	3	4	5
RC	Internet yazılarını (örneğin: elektronik posta, web sitesi) okumak	1	2	3	4	5
RD	Dergilerdeki ve gazetelerdeki makaleleri okumak	1	2	3	4	5
RE	Kullanma broşürlerini / Kullanıcı el kitaplarını okumak	1	2	3	4	5
RF	Raporlar okumak	1	2	3	4	5
RG	Grafikleri,tabloları ve haritaları yorumlama	1	2	3	4	5
RH	Referans kaynakları okumak (örneğin: ansiklopedi,sözlük)	1	2	3	4	5
RI	Belirli bir bilgi için okumak	1	2	3	4	5
RJ	Genel bilgi için okumak	1	2	3	4	5
RK	Ana fikri bulmak için okumak	1	2	3	4	5
RL	Sonuçlar çıkarmak amacıyla okumak	1	2	3	4	5
RM	Okurken parçanın kendi içindeki mantığını anlamak	1	2	3	4	5
RN	Okurken yazarın bakış açısını anlamak	1	2	3	4	5
RO	Okurken genel olarak bilinmeyen kelimeleri taramak	1	2	3	4	5
RP	Okurken bilim dalıyla ilgili kelimeleri anlamak	1	2	3	4	5
RQ	Okurken çıkarım yapmak	1	2	3	4	5

6. Öğrencilerinizin bölüm dersleri ile ilgili çalışmaları için aşağıdaki yazma beceriler ne kadar önemlidir? Lütfen bu soruyu aşağıda verilen sıralamaya uygun olarak ve bu sıralamadaki rakama karşılık gelen kutucuğu (X) işaretleyerek cevaplayınız.

1.Önemli Değil 2. Çok Önemli Değil 3.Önemli 4. Oldukça Önemli 5. Çok Önemli

WA	Kısa yazılar (paragraflar) yazmak	1	2	3	4	5
WB	Sınavlarda kısa cevap gerektiren soruları cevaplamak	1	2	3	4	5
WC	Sunumlar hazırlamak	1	2	3	4	5
WD	Araştırma yazıları yazmak	1	2	3	4	5
WE	Sınıfta not tutmak	1	2	3	4	5
WF	Özet yazmak	1	2	3	4	5
WG	Proje yazmak	1	2	3	4	5
WH	Deney anlatımı yazmak	1	2	3	4	5
WI	Bir makale üzerine eleştiri yazmak	1	2	3	4	5
WJ	Laboratuar raporları yazmak	1	2	3	4	5
WK	İş mektupları, kişisel mektuplar ve özgeçmis yazmak	1	2	3	4	5
WL	Yazıda ana fikrin iyi ifade edilmesi	1	2	3	4	5
WM	Yazının dilbilgisi kurallarına uygunluğu	1	2	3	4	5
WN	Yazıdaki fikirlerin konuya uygunluğu	1	2	3	4	5
WO	Yazıda fikirler arasında uygun geçişler	1	2	3	4	5
WP	Yazarken fikirlerin sıralanması (fikirlerin uygun düzenlenmesi)	1	2	3	4	5
WQ	Yazıdaki fikirlerin yeterli ve yerinde gelişimi	1	2	3	4	5
WR	Yazıdaki fikirlerin orijinalliği	1	2	3	4	5
WS	Yazarken uygun kelime kullanımı	1	2	3	4	5
WT	Yazarken bilim dalıyla ilgili akademik kelimeler kullanmak	1	2	3	4	5
WU	Yazarken imla ve noktalama işaretlerini doğru kullanmak	1	2	3	4	5

Ankette olmayıp da ilave etmek istedikleriniz…

Teşekkürler.

APPENDIX B
QUESTIONNAIRE

Dear Professor,

I have been working as an instructor in the Foreign Languages Department at KTU for three years. I am currently working on my Master's Degree at MA TEFL program at Bilkent University. For my thesis, I am doing a needs analysis, the purpose of which is to determine the academic English requirements of English medium departments from the content teachers' point of view at Karadeniz Technical University. I would like to learn your opinions concerning this issue. The information gathered by means of this questionnaire will provide the basis for the future curriculum renewal projects of Foreign Languages High School at KTU.

Your answers will be kept strictly confidential. Your completion of the questionnaire is assumed to grant permission to use your answers for this study. If you have any questions about my study or the questionnaire, please feel free to consult either me or my thesis advisor through the contact address given below.

I would like to thank you in advance for your cooperation and for sharing your valuable time for my study. With my best regards.

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PART I: BACKGROUND INFORMATION

1. Which faculty and department are you currently teaching at Karadeniz Technical University?
Name of the faculty : _____

Name of the department : _____

2. How important are the following English skills for your subject area courses?
Please answer this question circling the number relevant to your answer according to the rank order given below:

1. Not Important 2. Not very Important 3. Important 4. Fairly Important 5. Very Important

READING	1	2	3	4	5
WRITING	1	2	3	4	5
LISTENING	1	2	3	4	5
SPEAKING	1	2	3	4	5
TRANSLATION	1	2	3	4	5

3. To what extent are the following English speaking skills important for the students in your department? Please answer this question circling the number relevant to your answer according to the rank order given below:

1. Not Important 2. Not very Important 3. Important 4. Fairly Important 5. Very Important

SA	participating in classroom discussions	1	2	3	4	5
SB	asking and answering questions in class	1	2	3	4	5
SC	making presentations/presenting oral reports	1	2	3	4	5
SD	Speaking in the seminars	1	2	3	4	5
SE	speaking in informal daily life situations	1	2	3	4	5
SF	speaking to foreigners about their subject	1	2	3	4	5
SG	using non-academic vocabulary while speaking	1	2	3	4	5
SH	using academic vocabulary while speaking	1	2	3	4	5
SI	grammatical accuracy while speaking	1	2	3	4	5
SJ	pronunciation / accent in speaking	1	2	3	4	5
SK	fluency / accuracy in speaking	1	2	3	4	5
SL	intelligibility / comprehensibility while speaking	1	2	3	4	5
SM	conveying the message while speaking	1	2	3	4	5

4. To what extent are the following English listening skills important for the students in your department? Please answer this question circling the number relevant to your answer according to the rank order given below:

1. Not Important 2. Not very Important 3. Important 4. Fairly Important 5. Very Important

LA	understanding words, expressions,in English used in the lectures	1	2	3	4	5
LB	understanding instructions given in English in the lectures	1	2	3	4	5
LC	understanding daily life conversations	1	2	3	4	5
LD	understanding seminars/presentations in English	1	2	3	4	5
LE	understanding materials in English (e.g.video programs)	1	2	3	4	5
LF	understanding foreigners studying the same discipline	1	2	3	4	5

5. To what extent are the following English reading skills important for the students in your department? Please answer this question circling the number relevant to your answer according to the rank order given below:

1. Not Important 2. Not very Important 3. Important 4. Fairly Important 5. Very Important

RA	to read lecture handouts	1	2	3	4	5
RB	to read text books	1	2	3	4	5
RC	to read on the Internet (e.g. e-mail messages, web sites)	1	2	3	4	5
RD	to read articles from weekly magazines / periodicals/ journals	1	2	3	4	5
RE	to read instruction booklets / user manuals	1	2	3	4	5
RF	to read reports	1	2	3	4	5
RG	to interpret graphs, charts, tables, etc.	1	2	3	4	5
RH	to read reference books (e.g. encylopedia,dictionaries)	1	2	3	4	5
RI	to read for specific information	1	2	3	4	5
RJ	to read for general information	1	2	3	4	5
RK	to read for main idea	1	2	3	4	5
RL	to draw conclusions while reading	1	2	3	4	5
RM	to understand logical relations within the text while reading	1	2	3	4	5
RN	to understand the writer's attitude / point of view while reading	1	2	3	4	5
RO	to scan for unknown words in general while reading	1	2	3	4	5
RP	to recognize terminology while reading	1	2	3	4	5
RQ	to make inferences while reading	1	2	3	4	5

6. To what extent are the following English writing skills important for the students in your department? Please answer this question circling the number relevant to your answer according to the rank order given below:

1. Not Important 2. Not very Important 3. Important 4. Fairly Important 5. Very Important

WA	to write essays	1	2	3	4	5
WB	to answer short-answer question types in exams	1	2	3	4	5
WC	to prepare presentations	1	2	3	4	5
WD	to write research papers	1	2	3	4	5
WE	to take notes in the class	1	2	3	4	5
WF	to write summaries/abstracts	1	2	3	4	5
WG	to write projects	1	2	3	4	5
WH	to write descriptions of experiments	1	2	3	4	5
WI	to write critiques of an article	1	2	3	4	5
WJ	to write lab reports	1	2	3	4	5
WK	to write business letters/personal letter/CV	1	2	3	4	5
WL	good expression of the main idea in writing	1	2	3	4	5
WM	grammatical accuracy in writing	1	2	3	4	5
WN	relevance of ideas to the context in writing	1	2	3	4	5
WO	appropriate connections between ideas in writing	1	2	3	4	5
WP	sequence of ideas in writing	1	2	3	4	5
WQ	adequate development of ideas in writing	1	2	3	4	5
WR	originality of thoughts in writing	1	2	3	4	5
WS	appropriate use of non-academic vocabulary in writing	1	2	3	4	5
WT	use of academic vocabulary in writing	1	2	3	4	5
WU	mechanics (spelling, punctuation, format, etc.)	1	2	3	4	5

Please use this space to write any additional comments.

Thank you very much…