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DOKUZ EYLÜL ÜNİVERSİTESİ EĞİTİM BİLİMLERİ ENSTİTÜSÜ  
YABANCI DİLLER EĞİTİMİ ANABİLİM DALI  
İNGİLİZCE ÖĞRETMENLİĞİ PROGRAMI  
DOKTORA TEZİ

**THE ANALYSIS OF  
AN ENGLISH PREPARATORY PROGRAM  
BASED ON THE NEEDS ASSESSMENT OF  
PROBLEM-BASED LEARNING AND REGULAR  
GROUPS IN A FOREIGN LANGUAGE-MEDIUM  
INSTITUTION**

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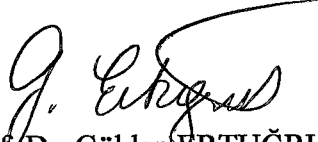
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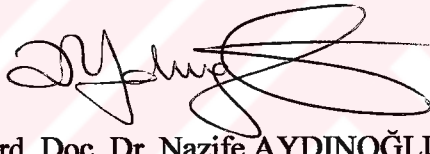
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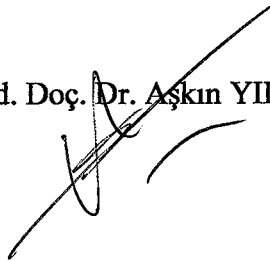
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## ABSTRACT

The purpose of this study is to identify the language needs of students in an English-medium higher education institution employing the problem-based learning (PBL) method, and find out whether there are any significant differences between the language needs of the students in PBL groups and those of the students in the Regular groups who are receiving their training in the traditional method. A secondary purpose of this study is to assess the English preparatory program which those students had previously attended according to the needs they reflected, and finally, to make suggestions for curriculum development and change in the light of the language needs in a PBL setting.

This study was carried out at The School of Maritime Business and Management, which is an English-medium school at Dokuz Eylül University applying the problem-based learning method (PBL) as part of active learning. The School of Maritime Business and Management, DEU, consists of two departments. These departments are Department of Maritime Business Administration and Department of Deck. In order to make a comparison between the language needs, the data gathering process was limited to 1<sup>st</sup> and 2<sup>nd</sup> class students who receive their training in problem-based learning method in both departments and the 3<sup>rd</sup> and 4<sup>th</sup> year students in the same departments, who receive their training in the traditional method. A total of 295 students participated in the study. Of these, 178 students formed the PBL groups and 117 students formed the Regular groups.

The data to this study were gathered through a questionnaire which was prepared by the researcher himself. The questionnaire was applied in Turkish in order to enable the students to understand without any difficulty. Two versions of the questionnaire were prepared: one to be given to the PBL groups, and one to be given to the Regular groups. The questionnaire is made up of eleven sections.

The data were evaluated in terms of t-test results and percentages, and the findings of the study were presented in separate sections comparatively both in tables and figures.

The results section of the study presents the language needs of the students in the problem-based learning, their difficulties in the use of the language skills and the problems they encounter, as well as the students' assessment of the prep program curriculum, which they had previously attended, and finally, some suggestions made for curriculum development and change in the light of the findings derived from the needs analysis in the scope of this study.

## ÖZET

Bu çalışmanın amacı, probleme dayalı öğrenme yöntemini uygulayan ve İngiliz dilinde eğitim veren bir yüksek öğretim kurumundaki öğrencilerin dil gereksinimlerini belirlemek, ve probleme dayalı öğrenme (PDÖ) gruplarındaki öğrencilerin gereksinimleri ile eğitimlerini geleneksel yöntemle alan gruplardaki öğrencilerin gereksinimleri arasında önemli farklılıklar olup olmadığını ortaya çıkarmaktır. Bu çalışmanın ikincil amacı ise, öğrencilerin yansıttıkları gereksinimlere göre daha önce devam ettikleri İngilizce hazırlık programını değerlendirmek, ve son olarak ta PDÖ ortamındaki dil gereksinimleri ışığında müfredat geliştirme ve değişimi amacıyla önerilerde bulunmaktır.

Bu çalışma, aktif öğrenmenin bir parçası olarak probleme dayalı öğrenme metodunu uygulayan ve İngiliz dilinde eğitim veren Dokuz Eylül Üniversitesi Deniz İşletmeciliği ve Yönetimi Yüksekokulu'nda yürütülmüştür. Deniz İşletmeciliği ve Yönetimi Yüksekokulu, iki bölümden oluşmaktadır. Bu bölümler Deniz İşletmeciliği ve Güverte bölümleridir. Dil gereksinimleri arasında karşılaştırma yapmak amacıyla, veri toplama işlemi her iki bölümde probleme dayalı öğrenme yöntemiyle eğitimlerini alan 1nci ve 2nci sınıf öğrencileriyle, aynı bölümlerde eğitimlerini geleneksel yöntemle alan 3ncü ve 4ncü sınıf öğrencileriyle sınırlandırılmıştır. Toplam 295 öğrenci çalışmaya katılmıştır. Bunlardan, 178'i PDÖ (PBL) gruplarını ve 117'si ise normal grupları oluşturmuştur.

Bu çalışmada kullanılan veriler, araştırmacının kendisi tarafından geliştirilen bir ölçek yoluyla toplanmıştır. Ölçek, öğrencilerin güçlük çekmeden anlamalarını sağlamak amacıyla Türkçe uygulanmıştır. Ölçeğin, biri probleme dayalı öğrenme gruplarına diğeri de normal gruplara verilmek üzere iki versiyonu kullanılmıştır. Ölçek, 11 kısımdan oluşmaktadır.

Veriler, t-test sonuçları ve yüzdeler bakımından değerlendirilmiş olup, çalışmanın bulguları karşılaştırmalı olarak farklı bölümlerde hem tablo hem de şekillerle sunulmuştur.

Çalışmanın sonuçlar bölümü, probleme dayalı öğrenmede öğrencilerin dil gereksinimlerini, dil becerilerinin kullanımında karşılaştıkları güçlükleri ve problemleri, ve bunun yanısıra, öğrencilerin daha önce devam ettikleri hazırlık programı müfredatının değerlendirmesini, ve son olarak ta, gereksinim çözümlemesinden elde edilen bulgular ışığında müfredat geliştirme ve değişimi amacıyla bazı önerileri sunmaktadır.

## CHAPTER I

### INTRODUCTION

This chapter presents the background and goal of the study, the research question, the sub-research questions, statement of purpose, statement of importance, statement of expectation related to the study, statement of assumptions, statement of limitations, definition of terms, and abbreviations used in the study.

#### 1.1 Background and Goal of the Study

Curriculum development or innovation is an important job to be considered in detail in the design of any language course. Markee (1997) defines curricular innovation as a 'managed process of development whose principal products are teaching materials, methodological skills, and pedagogical values that are perceived as new by potential adopters' (p.46). If seen as a process of development which requires managing, curriculum development or innovation naturally involves some stages. In this sense, Richards suggests that curriculum development in language teaching is concerned with the following processes and activities:

- determining the needs that a particular group of learners have for English instruction,
- developing objectives for a language course that will meet those needs,
- selecting teaching and learning activities and experiences that will enable these needs to be realized,
- evaluating the outcome. (Richards, 1985:6)

As seen in the order above as put forward by Richards, the needs of learners are to be given primary importance, and the goals and objectives for a language course need to be determined in terms of the learners' needs.

Needs analysis or needs assessment could give us useful information about our students and help us shape the curriculum. Through needs analysis, it is possible to discover the points that need to be changed or supported. In this sense, an effective needs analysis can be carried out to collect the necessary data in order to

structure an effective course and to solve the problems that are encountered. Richards also points out that ‘the efficiency of a language teaching program depends on how well these phases of curriculum development have been carried out’. Determining the needs which a group of learners have and developing objectives for a language course that will meet those needs are to be the first steps in the process of shaping a particular curriculum. This needs to be supported with a good selection of teaching materials and learning activities that will enable the needs to be realized. The evaluation of the outcome at the end of a course will naturally bring about other questions to be answered by curriculum planners. From such a perspective, it seems that curriculum development is a never-ending job and has to take the needs of learners into account as the corner stone of the process.

Richards also says that ‘the goals of the needs analysis phase of curriculum planning are to determine what a particular group of learners expect to use English for and what their present level of competence is’. To be able to do this, Richards suggests that:

Necessary data from various sources can be gathered to find out the sorts of lectures that students will have to attend, the types of various assignments they will have to carry out and the types of study skills they need in order to be successful within a university context. In addition, their major difficulties can also be discovered through interviews with students themselves and the faculty, observation of classes and the types of tasks and situations in which they will be using English. In doing so, the demands made on first-year students in terms of language skills and the learners’ abilities with respect to those demands can be identified. (Richards, 1985:6)

To put it another way, the types of situations in which learners will be using English, the tasks and activities they are expected to carry out, their major problems and difficulties in the use of English and their existing language skills and abilities with respect to those tasks can be determined through the findings derived from an analysis of their needs.

As one of the basic assumptions of curriculum development, Richards (2001) points out that ‘a sound educational program should be based on an analysis of learners’ needs’ and, in this sense, he lists a number of purposes of needs analysis as follows:

1. to find out what language skills a learner needs in order to perform a particular role, such as sales manager, tour guide, or university student,
  2. to help determine if a course adequately addresses the needs of potential students,
  3. to determine which students from a group are most in need of training in particular language skills,
  4. to identify a change of direction that people in a reference group feel is important,
  5. to identify a gap between what students are able to do and what they need to be able to do, and finally
  6. to collect information about a particular problem learners are experiencing.
- (Richards, 2001:51-2)

When all these purposes are considered as a whole, it could be said that needs analysis, as a process, is part of the planning and takes place as part of the development of a course for the realization of a planned program of instruction, so it may take place prior to, during , or after a language program ends. When looked from a wider perspective, it can be suggested that, through needs analysis, school administrators may obtain wider input into the content, design, and implementation of a language program. In this way, a series of changes or modifications can be introduced into the program based on an assessment of needs.

In addition, the results derived from the findings of a needs analysis project can be used in the development of goals, objectives, and content, as well as providing data for reviewing and evaluating an existing program. In order to obtain such a wide input into a language program, Nunan (1988) suggests that ‘the first task in conducting a needs analysis is to decide on what data to be collected, when they should be collected, by whom, through what means and for what purpose’ (p.42). In this sense, he defines needs analysis as ‘a set of procedures for specifying the parameters of a course of study.’ Such parameters include ‘the criteria and rationale for grouping learners, the selection and sequencing of course content, methodology and course length, intensity and duration.’ He also suggests that, ‘in a learner-centered system course designers can engage in consultation with learners in order to derive such parameters and identify short and long-term goals.’ In other words, learners can also be involved in the process actively. He stresses the importance of involving learners in the process pointing out:

‘one important outcome of involving learners in ongoing curriculum development is that not only does it increase the likelihood that the course will be perceived as relevant, but learners will be sensitized to their own preferences, strengths, and weaknesses. They will become more aware of what it is to be a learner, will develop skills in learning how to learn, and will be in a better position to negotiate the curriculum in the future.’ (Nunan, 1988:53)

Graves views needs assessment as a ‘cyclical process’, which involves a set of decisions, actions, and reflections and lists seven steps to be considered:

- (1) deciding what information to gather and why
- (2) deciding the best way to gather it: when, how, and from whom
- (3) gathering the information
- (4) interpreting the information
- (5) acting on the information
- (6) evaluating the effect and effectiveness of the action
- (7) (back to 1) deciding on further or new information to gather (Graves, 2000:100)

Besides being cyclical, Graves also draws attention to the fact that needs assessment is a ‘systematic and ongoing process of gathering information about students’ needs and preferences, interpreting the information, and then making course decisions based on the interpretation in order to meet the needs’. Graves views the process as an ‘orientation toward the teaching / learning process’ and points out that it is a ‘dialogue’ between the teachers and administrators, between the teacher and the learners, and among the learners (p.98).

According to Richards (2001:55), ‘needs are often described in terms of language needs, that is, as the language skills, needed to survive in an English-dominant society.’ Based on what Richards suggests, it could be stated that learners’ language needs need to be identified and focused on during the reconstruction of a language program. Speaking of what learners may be in need of, Richards also pinpoints that, ‘in the course of carrying out a needs analysis, a large number of potential needs may be identified.’ However, these needs will have to be ‘prioritized’ because not all of them may be practical to address in a language program, or perhaps the time frame available in the program is suitable for

addressing only a portion of them (p.65). Graves, in a similar view, speaks about some factors that can guide a researcher's choices in carrying out a needs assessment and says that 'it is important to gather information that is relevant to the purposes of the course.' To exemplify, Graves stresses that 'an assessment of students' writing skill would not be a priority in a course whose purpose is to improve students' oral skills' (p.106). In this sense, Dubin and Olshtain see 'skill specification' as a very important part of the process of needs evaluation of a particular student population in terms of present and future expectations. They say:

When course designers choose to focus on skills rather than on knowledge or content, the definition of product is much more closely related to the actual use learners are expected to make of the new language. ... If the students plan to use the target language in order to read academic or technical material, for example, then the product should reflect this by stating the specific reading skills they need to be proficient in by the end of the course; skimming, scanning, reading with comprehension at a certain rate of speed, etc. If the immediate needs of the student population are to communicate orally with native speakers of the target language, then the outcomes of the course would focus on oral communication skills with this objective stated as special types of interaction: to be able to communicate in an oral job interview etc. (Dubin & Olshtain, 1986:50)

Focusing on skill specification, Dubin and Olshtain make a difference between a 'knowledge-oriented approach' and a 'skill-oriented approach' and say that 'the former is less sensitive to specific needs and is, therefore, more easily adaptable to any population of learners, whereas the latter focuses on more carefully defined, individual needs for language use.'

Speaking of the nature of needs assessment or analysis as an ongoing process, Graves stresses that 'needs assessment helps the learners to reflect on their learning, to identify their needs, and to gain a sense of ownership and control of their learning' (p.98). In other words, it establishes learning as a dialogue between the teacher and the learners and among the learners. She also says that needs assessment is based on the belief that 'learning is not simply a matter of learners absorbing the pre-selected knowledge the teacher gives them, but is a process in which learners and others can and should participate' (p.98). Based on Graves' argument, it can be said that planning a curriculum not only involves identifying students' language needs,



but also tries to examine and become active in determining and shaping their own roles in it.

Graves finds a parallel line between the purpose of a language course and the purpose of needs assessment, and point out:

When designing and teaching a course to meet students' needs, it is assumed that there is a gap to be bridged between a current state and a desired one, or progress to be made toward a desired goal, or a change to be made. In this sense, the purpose of a language course is to bridge the gap or some part of it to help students make progress or to affect the desired change. Similarly, the purpose of needs assessment is to gather information about the current state of the learners and desired goals or change in order to make decisions about what will be taught, how it will be taught, and how it will be evaluated. (Graves, 2000:101)

It is possible to make a distinction between needs. Bervick (1989:55) makes such a distinction between 'felt needs' and 'perceived needs'. According to Bervick, felt needs are those the learners have, and the perceived needs are the way the needs are viewed by the teacher, the institution, and other people concerned (In Graves, 2000:100). In saying so, Bervick places the emphasis on the fact that 'needs assessment involves the teacher and the learner, and it is a complex undertaking because different learners within the same class usually have different needs.' From another perspective, whereas Brindley (1984:28) defines needs as 'wants, desires, demands, expectations, motivations, lacks, constraints and requirements' (In Richards, 2001:54), Richards (2001) views needs as 'linguistic deficiency'; that is, 'as a difference between what a learner can presently do in a language and what he or she should be able to do', suggesting that 'needs have objective reality and are simply there to be identified and analyzed' (p.54).

In carrying out a needs analysis project, it seems that one of the most important things is identifying the target population, people about whom information will be collected. In determining the target population, Richards (2001) warns that 'an important issue is that of sampling', and draws attention to the fact that 'decisions must be made about the size of the sample to be included in a needs

analysis' (p. 58). To put it another way, 'sampling involves asking a portion of the potential population instead of the total population and creating a sample that is representative of the total population.' In a similar line, Elley (1984) stresses that a number of factors influence the approach to sampling, such as homogeneity of the population in terms of the kinds of skills, attitudes, or knowledge being sought, or the need to study the subgroups within the sample (in Richards, 2001:58).

The results of the needs analysis can enable the curriculum planners to set goals for the language program. In this sense, goal setting is an important step and cannot be ignored. Richards (1985) stresses that 'such goals must be realistic in terms of the setting and circumstances, in which the program will be implemented, and relevant in terms of the language skills the learners will be expected to acquire'(p. 7). He goes on saying that 'by examining the needs of the learners according to priority, and by referring to the variables, general goals are turned into a more specific description of what the language program should set out to achieve.' He also stresses that 'objectives specify precisely what the learner should be able to do after a unit or a period of instruction. They may be defined with reference to a unit of work within a course or to the course as a whole, and they serve to present the aims of the course in a form that can be taught, observed, and tested.' Richards (1990) sees curriculum goals as 'general statements of the intended outcomes of a language program' and these goals must represent 'what the curriculum planners believe to be desirable and attainable program aims based on the constraints revealed in the needs analysis' (p.3). He suggests using these goals as a basis for developing more specific descriptions of the intended outcomes of the program objectives.

In this sense, Brown (1995:20) defines needs analysis/assessment as 'systematic collection and analysis of all relevant information necessary to satisfy language learning requirements of the students within the context of the particular institutions involved in the learning situation.' He states that 'a logical outcome of determining the needs of a group of language students is the specification of goals' (p.21), and sees the goals as 'general statements' that must be accomplished in order to attain and satisfy students' needs. In addition, Brown defines objectives as

‘precise statements about what content or skills the students must master in order to attain a particular goal.’ He stresses that ‘the specification of objectives and the process of thinking through what is involved in achieving the program goals will lead to analyzing, synthesizing, and clarifying the knowledge and skills necessary to meet the students’ language needs. He furthers his argument saying that ‘the process of needs analysis can generate a tremendous amount of information that must be sorted and utilized in some way within the curriculum. One way to use this information is to apply what has been learned in the needs analysis for the formulation of program goals and objectives.’

In this study, the language needs of the students in an English-medium higher education institution employing problem-based learning is one of the main focuses of the needs analysis project. In addition to this, as the problem-based learning is applied as part of active learning at The School of Maritime Business and Management, Dokuz Eylül University, whether the language needs of the students in PBL groups differ from those of the students in the Regular groups who are receiving their training in the traditional method, and an assessment of the prep program which these students had previously attended based on their needs, are the other main focuses of this study.

## **1.2 Statement of the Research Question**

What are the language needs of the students in an English-medium higher education institution employing problem-based learning and are there any significant differences between the language needs of the students in PBL groups and those of the students in the Regular groups who are receiving their training in the traditional method? And to what extent can the prep program which these students had previously attended be assessed based on their language needs?

### **1.3 Sub-Research Questions**

1. How frequently are the students expected to use the macro language skills in their studies?
2. How frequently do the students have difficulty in the use of each language skill?
3. At what level is each language skill needed by the students to achieve success in their fields of study?
4. How important is each language skill for the students in the PBL groups as part of their problem-based learning sessions, comparing with the attitude of the students in the Regular groups as part of their classes?
5. How important is each language skill for the students with respect to achievement of success in their future career?
6. What are the attitudes of the students in the PBL and Regular groups to the specific speaking skills with respect to the use of English?
7. What are the attitudes of the students in the PBL and Regular groups to the specific reading skills?
8. What are the attitudes of the students in the PBL and Regular groups to the specific writing skills?
9. What are the attitudes of the students in the PBL and Regular groups to the specific listening comprehension skills?
10. What are the attitudes of the students to the use of English in problem-based learning?
11. How do the students in problem-based learning groups view the prep program they had previously attended?

### **1.4 Statement of Purpose**

The main purpose of this study is to identify the language needs of students in an English-medium higher education institution which employs problem-based learning (PBL) as part of their classroom instruction, and to assess the content of the English preparatory program provided by DEU, The School of Foreign Languages,

and finally make suggestions for curriculum development in the light of the needs expressed by the students.

### **1.5 Statement of Importance**

As can be seen in the research question, this study aims to identify the students' language needs arising in a problem-based learning setting, and in this sense, it is important to state specifically what language needs students tend to have as part of PBL. In addition, it is also important to identify the level of importance and frequency of use of the language skills for students and the problems they encounter in PBL sessions.

This study also aims to identify specifically the most important sub-skills under each macro language skill which are needed in a typical PBL session.

### **1.6 Statement of Expectation**

In this study, the main expectation is that students in the PBL system will express different language needs from the students who receive their training in the traditional method at the same department.

### **1.7 Statement of Assumptions**

The questionnaire used in this study in order to identify the language needs which the students require in problem-based learning was prepared in English but administered in Turkish. It was accepted that the students would better grasp the question items in the questionnaire in their mother tongue.

### **1.8 Statement of Limitations**

This study was limited to only one higher education institution, namely The School of Maritime Business and Management, DEU, which consists of two

departments. These departments are Department of Maritime Business Administration and Department of Deck. The data gathering process was also limited to 1<sup>st</sup> and 2<sup>nd</sup> class students who receive their training in problem-based learning in both departments in order to make a comparison with the language needs of the 3<sup>rd</sup> and 4<sup>th</sup> year students in the same departments, who receive their training in the traditional method.

### **1.9 Definition of Terms**

Needs Assessment: Needs Analysis

Language Skills: Reading, Speaking, Writing, and Listening Comprehension

PBL Groups: Problem-based learning groups

REGULAR Groups: Groups using traditional method of learning

### **1.10 Abbreviations**

DEU: Dokuz Eylül University

PBL: Problem-based Learning

NA: Needs Analysis / Assessment

## CHAPTER II

### RELATED STUDIES

This chapter presents the related studies carried out in the field of needs assessment or needs analysis and the findings derived from these studies.

To begin with, in a study carried out by Seedhouse (1995), it is reported that although learners' needs are theoretically of prime importance in current learner-centered approaches, needs analysis is rarely carried out in the General English classroom. Seedhouse argues that this is partly because of an erroneous belief that it is not possible to specify the needs of General English learners, and partly because of a lack of literature on the practicalities of analyzing needs data in the context of General English. An example of the analysis of psychological and social needs in one particular General English classroom is worked through in detail. The purpose of this study was to show that it is possible to specify General English needs, even in the abstract area of psychosocial needs; to demonstrate that needs analysis can be useful in the General English classroom with respect to problem-solving and as a basis for designing aims, courses, and materials; and to provide a concrete illustration of how analysis of data can be performed, and how a tight and direct link can be maintained between needs, aims, and materials, and what actually occurs in the classroom.

In a study done by Benesch (1996), an example of critical needs analysis and EAP curriculum development in English as a second language writing / psychology course at an American college is described. The writer offers critical needs analysis as an alternative approach to examining target situations in needs analysis research in English for academic purposes (EAP) / English for special purposes (ESP). In needs analysis research in EAP / ESP, researchers identify and describe existing elements of the target situation in order to provide the basis for

curriculum development. Critical needs analysis, on the other hand, regards the target situation as a site of potential reform, taking the hierarchical nature of social institutions into account and treating inequality, both within and outside the institution, as a central concern.

Gravatt et al. (1997) investigated the language needs of non-English-background students at a New Zealand university using various procedures, and one of the findings of a needs analysis and problems of ESL students attending university lectures was a list of the frequency with which students experienced difficulties with speaking and listening skills. The most common difficulties reported were by rank:

1. large group discussions
2. class discussions
3. interactions with native speakers
4. out-of-class projects
5. small group work
6. demonstrator interactions, and
7. class participation (In Richards, 2001:64-65)

Based on the findings of the study above, Richards discusses that such a listing provides little useful information about the precise type of problems that the learners experience in relation to each event.

In a research study, John and Johns (1997) provides a list of problems that students tended to have with class discussions based on the results of a needs analysis. The most frequent difficulties are reported as follows:

1. comprehension of spoken English (they speak too fast / vocabulary is too idiomatic)
  2. the pressing need to formulate a contribution quickly (I can't think what to say)
  3. shyness about the value of a contribution (I might say something wrong)
  4. inability to formulate an idea in English (I don't know how to say it in English)
  5. awareness that a given function may be realized in different ways (I don't know the best to say it)
  6. frustration about being unable to enter a discussion (Some students speak too much)
- (In Richards, 2001:65)



The findings derived from a NA (needs analysis) project which was carried out at the College of Petroleum and Engineering, Kuwait University are presented by Baştürkmen (1998) in an article. The aim of the project was to offer an illustration of a needs analysis project and to show how the procedural steps evolved. In addition, some of the findings and their implications for curriculum design are reported. A major objective of the needs analysis in this particular study was to establish a database of information concerning the use of English by students in the College of Petroleum and Engineering, Kuwait University. Specifically, information was to be sought concerning the English language demands in engineering studies, the areas of difficulty encountered meeting these demands, and the students' assessment of the usefulness of the English language instruction given. The project aimed to assess the students' language requirements in target academic situations in relation to their present situation. The methodology underlying the study was both qualitative (exploratory interviews, class observations, examination of student materials and samples) and quantitative through the implementation of structured questionnaires. The qualitative stage preceded the second, more quantitatively oriented stage.

The study by Baştürkmen looks at the importance of skills area and the results indicated differing perceptions between students and faculty on the relative importance of reading. Faculty saw reading and listening as almost equally important, while students perceived listening as far more important. Baştürkmen reports that these results indicated the fact that reading and listening skills should be given more priority in the curriculum, and the current emphasis on the development of writing skills should be reconsidered.

This particular study also identified the most important language-based tasks preferred, and as a result, the ten tasks seen by the faculty and students as most important for study in the College are listed in the order of priority as below:

1. Reading textbooks;
2. Writing up lab reports/lab assignments;
3. Following lectures;
4. Reading instructions for labs and assignments;
5. Listening to instructions for labs and assignments;
6. Reading course and lecture handouts;

7. Note taking in lectures;
8. Listening to presentations and participating in the discussion;
9. Preparing projects;
10. Preparing answers to questions from textbooks

When looked at students' language problem areas, the study showed that there was clearly some divergence between faculty and students' views. Few students reported inadequacy in any skill areas other than speaking. Far more faculty members perceived students as having inadequate skills. Over 60% of faculty members perceived students to have inadequate writing skills. What is clear from these results is that students' English language proficiency falls below faculty expectations and that students are unaware of the level of proficiency expected. This indicated that one objective of the curriculum should be to raise students' awareness of the levels of proficiency which the faculty find acceptable. Based on the results of the study carried out by Baştürkmen, a database of information about study in the College, language needs, perceptions, expectations for English courses, etc., was generated to be used as a resource primarily for curriculum design.

A study by Cameron (1998) examined language-focused needs in class and clinic of nursing students who speak English as a second language. Participants were 16 incoming graduate students in the nurse-practitioner programs in the University of Pennsylvania's School of Nursing. The results of the study revealed five general categories of need:

- (1) speech production accuracy, involving pronunciation, vocabulary, grammar, and discourse;
- (2) academic performance, involving reading strategies, writing, speaking, listening, and critical thinking and moral reasoning;
- (3) clinical performance, involving the acquisition of information, transmission of information, translation of information, different channels of communication, and social interaction with different individuals in the clinical setting;
- (4) dialect variation, involving introduction to the nature of dialect variation in American English, training in differences between biomedical and vernacular vocabulary for the body and bodily functions, and introduction to cultural differences in styles of communication;

- (5) language-based and social-based inferencing skills, involving practice in deriving inferences from both spoken and written English, in explaining utterance meaning as a function of who is speaking in a given context, and in the inference of relevant social information that requires knowledge of local culture.

This particular study indicates that specific groups of learners may have specific needs, and that needs analysis is an essential step in the curriculum development process.

In a comparative needs analysis study, Ferris (1998) examined students' perceptions about academic aural / oral skills requirements and their own struggles with aural/oral skills and compared responses to those of instructors from the same institutions in a different study. Most of the 768 English as-a-second-language students in three Californian institutions who participated were undergraduate immigrants. The results derived from this particular research study showed that the participants took classes that fairly often required class participation and small-group interaction, that collaborative assignments were less common, and that, student-led discussions, formal presentations, debates, and interviews with native speakers were extremely rare. In most cases, the participants asked questions in class, saw note-taking skills as essential to success, and attended instructors' office hours. They had most difficulty with oral presentations, note taking, and whole-class discussions and relatively little difficulty with small-group discussions and class participation, although responses varied considerably across participants' majors, class level, status, first language, and gender. There was little overlap in the responses of the participants in this study and of instructors from the same institutions in the other study.

A study by Alalou and Chamberlain (1999) examined why students enroll in French language courses and what specific skills they want to learn. The participants were students enrolled in a French language program at a major metropolitan research institution that is currently restructuring its language program. The results showed that the participants came to French language classes with many expectations and experiences, as well as a wide range of goals.

Young (2000) contends that if learners are to be placed at the center of the learning experience, they must be offered as broad a spectrum of learning strategies as possible. The student population is extremely heterogeneous in terms of student-perceived needs, and students use an extremely wide range of preferred learning styles and strategies. Therefore, some students may be denied their preferences and excluded from full participation in the learning process if particular tasks and activity types that only reflect current methodologies and ideologies are imposed upon them.

A study by Alalou (2001) examined the language needs of students enrolled in German, French, and Spanish classes and the extent to which the students' perceived needs matched the departments' missions for their language programs. The findings from this study suggested that similarities and differences existed in the students' perceived needs across languages. The similarities included the students' emotional connections to the languages, interest in acquiring communicative skills, and plans to use the languages in future careers. However, the students differed in their language backgrounds, in their perceptions of the language requirement, and in the ways they used languages outside of the classroom. It was also noted that the students used German and French more often with native speakers than did the Spanish students. Additional findings, discussion of the results, and several practical recommendations for language departments are provided.

In a study carried out by Boran (1994) on needs analysis for the ESP classes at the Tourism Education Department of the Trade Business and Tourism Education Faculty of Gazi University, Ankara, it is said that needs analysis is crucial for ESP (English for Specific Purposes) curricula because it provides valuable data in order to set the goals, objectives, and aims of a curriculum and contributes to the appropriateness of a curriculum for students' needs and purposes. In this particular study, the students of the Tourism Education Department of the Trade Business and Tourism Education Faculty of Gazi University in Ankara, Turkiye, take 4-6 class hours of English per week for tourism purposes. The lectures who are in charge of teaching ESP at the department write their syllabuses and select the course materials depending only on their intuitions about the students' communication needs in their

future work domain. However, according to the results of preliminary informal interviews, these students are generally unsuccessful in communicating with their foreign interlocutors in English in the job settings where they do their summer apprenticeships. Therefore, considering that the learners' purposes in learning English and the communication requirements of the situation in which the learners will use English should be revealed, this study attempted to reveal the students' perceptions of their communication needs, as well as the ESP lecturers' and the tourism subject lecturers' perceptions of the students' communication needs. This study also attempted to reveal whether what is provided for the students in ESP classes at the Tourism Education Department meets what is required by the students' future work domain. The most notable finding gathered from the responses of the students and the ESP lecturers shows that the students did not practise frequent or effective speaking and listening activities in their ESP classes although all subject groups assumed that speaking and listening were the most important language skills in the students' future work domain. Despite this agreement, there were also discrepancies among the subject groups' perceptions of some issues. For instance, the students and the tourism subject lecturers considered translation the least important language skill, whereas ESP lectures saw translation the third most important language skill for the students' target situation, after speaking and listening.

A study by Elkılıç (1994) attempted to determine the English language needs of the students of veterinary medicine at Selcuk University. English language courses in the Faculty of Veterinary Medicine are taught by using the grammar-translation method without taking the language needs of the students into consideration. Although students need English in order to read journals, magazines, and research papers published in English, they are not taught to develop skills required to do so. This is due to the fact that the English language teachers offer English courses to students who are specializing in physics, geography, engineering, biology and so forth. Thus, teachers are not very well aware of the special needs of students in each specialized area. All groups were requested to rank the four language skills according to importance. Reading was unanimously selected as the most important skill. There were mixed opinions concerning the importance of the other three skills.

Listening, however, was considered to be the second most important. The students, subject professors, and language teachers also stated that reading was important in order to be able to understand scholarly journals, magazines, and reports as well as to be able to translate materials from English into Turkish. Based on these results, the researcher made recommendations for improving the present English language curriculum at Selcuk University.

A study on needs analysis carried out by Dengiz (1995) investigated the English language needs of the students at the Maritime Faculty of Istanbul Technical University where prospective deck officers and marine engineers are educated to work both on cargo and passenger ships. The lack of a curriculum, the need to identify the objectives and means of the language instruction, and the shortcomings of the current language program at the faculty necessitated a needs analysis study to meet the specific purposes of the maritime students. Semi-structured questionnaires and interviews were used to gather data for this descriptive study. The researcher sought an answer for a major question: What are the English language needs of the students at the Maritime Faculty both for their future careers and their studies? The sub-questions aimed at discovering the proficiency level of English required for deck officers and marine engineers during their studies and professions; the language skills and sub-skills they will need in their work domain and faculties; the suitable teaching approach to be followed; and the shortcomings of the present English language program. The results obtained from the study revealed that maritime students should know English at an advanced or at least intermediate level. The English language skills deck officers and marine engineers will need in their profession were determined as listening and speaking, whereas marine engineers will need reading most. Writing followed these skills for both departments. The following sub-skills were also considered as important for seamen: writing reports, formal letters, and logbooks; reading instruction manuals, trade books, and professional journals; listening and responding to radio-telephone messages, instructions, and participating in conversations with foreign colleagues. The shortcomings of the current language program are reported to be inappropriate teaching methods, lack of coordination between teachers, inappropriate content of courses, under-emphasis of

oral/aural skills, and unsuitable regulations. The researcher suggested that an English for Specific Purposes (ESP) approach with appropriate methodology should be followed in teaching English to maritime students and emphasized the urgency of the development of a curriculum that will meet the specific needs of the students at the Maritime Faculty as expressed in this study.

A research study by Güven (1996) investigated the perceived writing needs of students at Bilkent University and whether establishing a writing center at Bilkent University would serve those needs. The study had two sets of six research questions. The first set of questions aimed at determining whether students were actually writing: (a) Are students writing in their subject courses? (b) What kinds of writing tasks are they writing?, and (c) Are they having difficulty? The second set aimed at exploring students' writing needs and whether establishing a writing center at Bilkent University would serve those needs: How do students perceive their writing needs? and How do English and subject instructors perceive students' writing needs? The results of this study showed that students are in fact writing in their subject courses, taking essay type exams and are sometimes assigned research papers and oral presentations. Freshmen students feel more confident about their writing than senior students, but instructors feel that students are having difficulty and need extra assistance with their writing. Instructors indicated that they would encourage students to make use of a writing center and students indicated they would make use of a writing center as well. Although there is a perceived need for extra assistance in writing for students, results do not indicate that establishing a writing center would necessarily serve the needs of students, as students indicate reluctance about using the center.

A research study by Gündüz (1999) investigated the English language needs of the students in the English Language and Literature Department at Selcuk University and prepared guidelines for an appropriate preparatory program. The results revealed that the students in the ELL Department were at different levels of English. As a result, they had to be trained to reach a similar level of English to attend departmental classes. The general view of the lecturers and administrators was

that all students had to be at least at the upper-intermediate level to follow literature classes. They also stated that all the language skills were equally important to take classes. The most important finding from the perspective of the students was the need for an appropriate preparatory program, where weak students could improve their language and study skills in English. Furthermore, next to the need for all four language skills, emphasis was on extra reading, conversation and grammar practice classes.

A study done by Akar (1999) investigated the question of what METU freshman reading course students need in ENG 101 (Development of Reading and Writing Skills I) both for their studies in content courses and their future careers. In order to carry out this study, three different groups of participants were used as informants, METU freshman reading students, METU graduates who currently hold jobs and content-course teachers. For the first group, four departments were selected: Architecture, Economics, Electrical Engineering, and Mathematics Education. This study assessed whether the students were content with ENG 101 and how they ranked language skills in terms of importance for them. METU graduates were interviewed to gather further data for this study. Two architects, two electrical engineers, two economists and two math teachers participated in this part of the study. They were asked questions about the extent to which they use reading and other skills in English in their current jobs and what they recommend for an effective reading course. The third group was content-area instructors, to whom a questionnaire on student needs in terms of English language skills was distributed in the Spring of 1998 by the Department of Modern Languages. This questionnaire aimed to see whether the needs of students in their departments were in agreement with what they studied in their freshman reading classes. The results of the study indicate that freshman students' opinion about the course varies according to their department. Architecture students' results were lower than those of the other three departments. The students' overall responses showed that they were not very contented with the reading that they did in ENG 101; however, the Economics group considered it beneficial for their content course studies. Students indicated vocabulary studies as the most beneficial component of the course and speaking the



least. Their results also showed that they viewed reading and speaking as the most important skills both in undergraduate studies and for future professions. METU graduates rank reading and writing as the two most needed skills for their jobs, but they focus on the importance of fluent speaking as well. All content-area teachers' results indicate that their students do some reading although the amount of it varies according to department. Based on these results, Akar offers some suggestions for improving the syllabus for the reading course.

To conclude, learners' needs must be of prime importance if language learning process is aimed to be learner-centered. In such a learner-centered approach, it is possible to identify the learners' needs. In this respect, a needs analysis project can be useful in identifying and solving problems in curriculum design, in determining new goals and objectives and renewing them constantly, and in choosing teaching materials as well as course books. In doing so, the elements of the target situation and student population can be described, and as a result of this process, a sound basis could be prepared for curriculum design. Besides, as part of the needs analysis project, the level of importance of the skills, the difficulties and the problems students tend to experience in the use of the language skills, and the most commonly used language tasks could be identified. In addition, students' expectations from the language program and the requirements imposed on them can be reconsidered. Moreover, a NA project can enable a school administration to look over the goals and objectives of their language course more closely, and if needed, they can be changed under new conditions. In short, through an assessment of learners' needs in an objective way, participation of students into the learning process can be made possible; and consequently, the findings derived from such an analysis of needs could be used as data base to introduce suggestions for the redesign and development of the existing curriculum within an institution.

## **CHAPTER III**

### **METHODOLOGY**

This chapter gives information about the purpose of the study, the subjects, detailed and step-by-step procedures followed for the preparation of the questionnaire, stages of content validity and reliability of the questionnaire before it was applied, the content of the questionnaire, and finally the statistical procedures followed for the evaluation of the data.

#### **3.1 Purpose of the Study**

The purpose of this study is to identify the language needs of students in an English-medium higher education institution employing the problem-based learning (PBL) as a method of learning, and find out whether there any significant differences between the language needs of the students in PBL groups and those of the students in the Regular groups who are getting their training in the traditional method. A secondary purpose of this study is to assess the English preparatory program, which those students had previously attended, based on the needs they reflected, and finally to make suggestions for curriculum development and change in the light of the needs expressed by the students in a problem-based learning setting.

#### **3.2 The Scope and Sample**

To carry out this research study, The School of Maritime Business and Management, which is an English-medium school at Dokuz Eylül University, Izmir, was selected in particular as problem-based learning (PBL) is commonly applied at this institution as a method of learning and as part of active learning.

The School of Maritime Business and Management, DEU, consists of two departments. These departments are Department of Maritime Business Administration and Department of Deck. The data gathering process was limited to 1<sup>st</sup> and 2<sup>nd</sup> class students who receive their training in problem-based learning in both departments in comparison with the language needs of the 3<sup>rd</sup> and 4<sup>th</sup> year students in the same departments, who get all their training in the traditional method. 178 students formed the PBL groups and 117 students formed the Regular groups.

### 3.3 Data Gathering Procedures

During the initial stage, a detailed set of open-ended questions were prepared in order to form the basis of a questionnaire to be used in the identification of the language needs of the students in a problem-based English-medium school as well as the problems and difficulties they encounter in their studies when they are using English. There were a total of 26 open-ended questions to be answered by the subjects. After these questions were prepared, they were looked over with three members from the same school for appropriateness, and some necessary changes were made. Before these questions were handed out to a sample group of students, two randomly-selected students attending the second year at the Department of Maritime Business and Administration were kindly asked to read and discuss the questions with the researcher himself in order to check if any of the questions was impeding comprehension or causing confusion. They were also asked their opinions whether it was necessary to add more questions to reach more data. Their suggestions were also considered and added into the list of questions. All these questions were in Turkish so that the subjects could readily understand and reply appropriately.

The final version of the list of questions was later distributed by a faculty member to a randomly-selected group of 15 students in second class at the Department of Maritime Business Administration in order to get their ideas about their language needs and the problems they tend to encounter relating to the program

demands. The replies given to these questions were later used as data base in the design of the questionnaire.

The questionnaire, which was prepared in order to identify the language needs of the subjects, was revised a number of times in terms of appropriateness and practicality. After that, in order to increase the content validity of the questionnaire, some experts were kindly asked their opinions of the sections within the questionnaire and the items in each section based on the research question; and their views were also reflected into the content of the questionnaire. In this sense, three instructors of English from the School of Foreign Languages and three research assistants from the English Department at the Faculty of Education were asked to go over the question items critically and suggest necessary changes; and consequently, their suggestions were reflected to the content of the questionnaire as well. Besides, one assistant professor from the Institute of Educational Sciences, DEU, was consulted for her views and suggestions on the questionnaire, and some changes were made in order to eliminate the problems that would come up while administering it. In addition, one associate professor from The School of Maritime Business and Management, who is also an expert in language teaching, and an English language instructor who is mainly in charge of the preparation of modules for problem-based learning, were asked their opinions concerning the applicability and appropriateness of the questionnaire items to their specific conditions and the educational process carried out within their program. Based on their comments, some items that seemed to be overlapping were either combined in one item or taken out of the questionnaire totally. Following this period of consultation period, an expert at the Department of Statistics was also asked his opinion to have a critical view of the questionnaire as a whole, and some suggestions with respect to face validity were reflected into the questionnaire as well.

Finally, a group of randomly-selected six students from The Department of Maritime Business and Administration, three in the first class and three in the second class, were kindly asked to read the questionnaire thoroughly in a single session with the researcher himself and one lecturer from The School of Maritime Business and

Management, who is in charge of Module preparation for problem-based learning, in order to check if any of the items was confusing or difficult to understand; and as a result, their suggestions were also taken into consideration and reflected to the statements in the questionnaire.

Following this stage, the questionnaire was administered by a department coordinator to a group of randomly-selected 20 students, 10 from each of the two departments, who were all in the first class. To reply the questionnaire easily, answer sheets were used. The answer sheets were evaluated by an optic reader. Letter values (a, b, c, d, e) were converted to numeric values using the Excel software. After that, these values were transferred to SPSS (Statistical Package for Social Sciences). SPSS 11.0 software program was run to calculate the alpha reliability coefficient value for the questionnaire; and alpha was calculated as .9654 for this randomly-selected group including 20 subjects; and depending on this level of reliability, the questionnaire was administered to all the students at The School of Maritime Business and Management in Spring Term towards the end of the 2003-2004 Academic Year, considering that the first class students would have a clear and better idea of problem-based learning towards the end of their first year, the way it is applied and their language needs required by this method of learning.

Two coordinators at the School of Maritime Business and Management, each representing one department, agreed to be the contact person for the administration of the questionnaire to their students.

After the questionnaire was administered to the whole population of the school, one hundred and thirty questionnaire answer sheets representing the students, who previously attended the English preparatory program at The School of Foreign Languages, DEU, were separated and evaluated by the optic reader. After that, the letter values (a, b, c, d, e) were converted to numeric values in Excel software in order to be transferred to the SPSS software for the recalculation of the alpha reliability coefficient. In the retest of the alpha, the reliability coefficient was

calculated as .9948. Özdamar (1999:522) gives the following values for the reliability of questionnaires:

- $0.00 \leq \alpha < 0.40$  (the questionnaire is not reliable)
- $0.40 \leq \alpha < 0.60$  (The reliability is low)
- $0.60 \leq \alpha < 0.80$  (The questionnaire is quite reliable)
- $0.80 \leq \alpha < 1.00$  (The questionnaire is highly reliable)

Based on these values, it can be said that the questionnaire prepared for this study is highly reliable.

### 3.4 Data Gathering Instrument

The data used in this study were gathered through a questionnaire. The questionnaire used in this study was prepared by the researcher himself. The questionnaire was applied in Turkish in order to enable the students to understand without any difficulty. Two versions of the questionnaire were prepared: one to be given to the PBL groups, and one to be given to the Regular groups. In the second version, the term 'PBL' or 'problem-based learning' was not used at all, and it was replaced by 'classes' or 'in your classes' in order to avoid confusion or misunderstanding.

The questionnaire is made up of eleven sections, each of which deals with a different aspect of language skills and needs in problem-based learning. The last part of the questionnaire deals with the students' assessment of the prep program they had previously attended.

The first part of the questionnaire is mainly concerned with how frequently the students are expected to use the macro language skills in their studies.

The second part of the questionnaire aims at finding out the frequency of difficulty the students have in the use of each language skill.

The third part of the questionnaire focuses on identifying students' attitude to the level of necessity for each language skill to achieve success in their fields of study.

The fourth section of the questionnaire looks at how important each language skill is for the students in the PBL groups as part of their problem-based learning sessions, comparing with the attitude of the students in the Regular groups as part of their classes.

The fifth part of the questionnaire aims to find out the students' general attitude to the importance of language skills with respect to achievement of success in their future career.

The sixth part of the questionnaire focuses, in particular, on the attitudes of the students in the PBL and Regular groups to the specific sub-speaking skills with respect to the use of English.

The seventh part of the questionnaire deals with the attitudes of the students in the PBL and Regular groups to the specific sub-reading skills.

The eighth part of the questionnaire deals with the attitudes of the students in the PBL and Regular groups to the specific sub-writing skills.

The ninth part of the questionnaire deals with the attitudes of the students in the PBL and Regular groups to the specific listening comprehension skills.

The tenth part of the questionnaire deals with the attitudes of the students to the use of English in problem-based learning.

Finally, the eleventh and last part of the questionnaire focuses on students' assessment of the English preparatory program which they had previously attended; and specifically aims at highlighting the views of the students in problem-based

learning on various aspects of the prep program and providing an assessment of the prep program in general.

### 3.5 The Statistical Procedures

The data were evaluated using the SPSS 11.0 statistical software in terms of mean scores, standard deviations, t-test results, and percentages. The t-test results for each item were also supported with percentages in order to get a better picture of the results and to make comments. The percentages were given in pie charts and the same colors were used for the same categories throughout the study for easy and practical comparison of the results and tendencies.





## CHAPTER IV

### FINDINGS AND COMMENTS

One of the most important aims of this study was to find out the language needs in problem-based learning, which is being used at the Department of Maritime Management and Department of Deck in the first and second year classes at The School of Maritime Business and Management, comparing with those of the third and fourth-class students at the same departments. The other purpose of this study was to assess the English preparatory program, where a big population of these students had learned English before they went on with their studies at their departments, and finally to reach suggestions for curriculum development and change.

To provide consistency within the study, first and second classes were called **Problem-based Learning (PBL) Groups**, who were receiving their training in the problem-based learning, and similarly third and fourth classes were called as **Regular Groups**, who were receiving their training in the traditional method. For the regular groups, the term 'problem-based learning' was not used at all and it was replaced by words like 'classes' or 'in your classes' on the questionnaire in order to avoid misunderstandings, questions and confusion during the data-gathering process.

#### **4.1 Findings and Comments on the Frequency of Use of Macro Language Skills**

The first question of the questionnaire developed for this study was mainly concerned with how frequently the students were expected to use the macro language skills in their studies. The results were analyzed with respect to the mean scores, standard deviations, independent samples t-test results and then percentages for both groups.

First of all, Table-1 below shows the t-test results for PBL and Regular groups on the frequency of use of the reading skill.

Table-1  
Frequency of Use of the Reading Skill (*t*-test)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.58 | .661 | 3,479    | .001*                 |
| REGULAR | 117 | 4.29 | .777 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-1, PBL groups seem to have a higher mean score compared to that of the Regular groups and the t-test result shows that there is a difference in the frequency of use between PBL and Regular groups at the  $p < 0.05$  significance level; which means that PBL groups seem to use the reading skill more frequently in problem-based learning than the Regular groups do.

Figure-1 below shows the percentages for the frequency of use of the reading skill for PBL and Regular Groups.

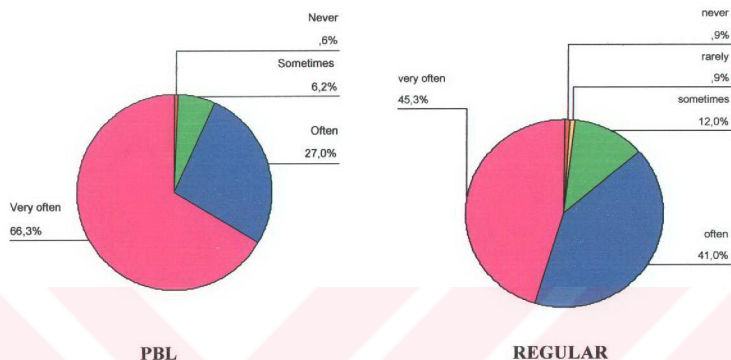


Figure-1: Percentages for the frequency of use of the reading skill

As can be seen in Figure-1 above, PBL groups reported very high percentages for the frequency of use of the reading skill. Of 178 students, 66.3% of them reported that they were using the reading skill 'very often' and 27% of them said that they were using this skill 'often', which is equal to **93.3%** as a total, whereas only 6.2% of them reported that they were using it 'sometimes'. It is a striking fact that the ones who said that they were 'never' using the reading skill remained at a very low percentage, which is even lower than 1% and no-one said 'rarely'. These percentages also clearly indicate that the students use the reading skill quite frequently in problem-based learning. On the other hand, of 117 students in the Regular Group, 45.3% of them reported that they were using the reading skill 'very often' and 41% of them said they were using this skill 'often', which is equal to **86.3%** as a total. Only 12% of them said that they were 'sometimes' using the reading skill. The only difference is that the percentage of the ones who said that they were using the reading skill 'very often' in both groups is much higher in the PBL group than in the REGULAR group. Although there is a significant difference in the frequency of use of the reading skill between the two groups according to the t-test

results, it seems that REGULAR groups also reported high percentage for the use of this skill.

As for the speaking skill, Table-2 below shows the t-test results for both PBL and REGULAR groups on the frequency of use of the speaking skill.

Table-2  
Frequency of Use of the Speaking Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.21 | .814  | 5.141    | .000*                 |
| REGULAR | 117 | 3.62 | 1.057 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value       $p < 0.05$

As seen in Table-2, the PBL groups seem to have a much higher mean score for the frequency of use of the speaking skill. Based on the mean scores, the *t*-test result also shows that there is a difference in the frequency of use of the speaking skill between PBL groups and REGULAR groups at the  $p < 0.05$  significance level, which means that PBL groups seem to use the speaking skill more frequently in problem-based learning than REGULAR groups do in their classes.

Figure-2 below also shows the percentages for the frequency of use of the speaking skill for both groups.

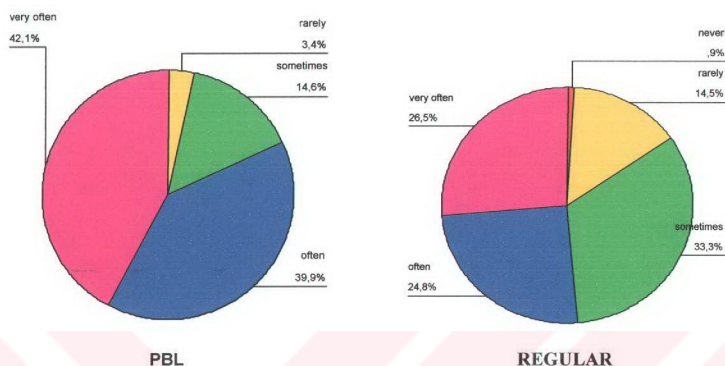


Figure-2: Percentages for the frequency of use of the speaking skill

As can be seen in Figure-2 above, PBL groups reported very high percentages for the frequency of use of the speaking skill. Of 178 students, 42.1% of them reported that they were using the speaking skill 'very often', and 39.9% of them said that they were using this skill 'often', which is equal to **82%** as a total, whereas 14.6% of them reported that they were using it 'sometimes'. The ones who said that they were 'rarely' using the speaking skill remained at 3.4%. These percentages also clearly indicate that the students use the speaking skill quite frequently in problem-based learning. On the other hand, when the percentages reported by REGULAR groups are compared, it is seen that, of 117 students, only 26.5% of them reported that they were using the speaking skill 'very often', and 24.8% of them were using the skill 'often', which equals to **51.3%** as a total and it is much lower than that of the PBL groups. Furthermore, 33.3% of them said that they were 'sometimes' using the speaking skill and 14.5% of them reported a rare use of this skill. Almost no-one said 'never' in both groups as the percentages indicate. The percentages for the frequency of use of the speaking skill also clearly prove that PBL groups use the speaking skill much more frequently than the Regular groups do, and this can be interpreted as that PBL sessions place a demand on students for frequent use of the speaking skill, as a productive skill.

Thirdly, as for the writing skill, Table-3 below gives the t-test results for both PBL and REGULAR groups on the frequency of use of the writing skill.

Table-3  
Frequency of Use of the Writing Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.28 | 1.072 | 7.163    | .000*                 |
| REGULAR | 117 | 4.08 | .842  |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As seen in Table-3, Regular groups scored a much higher mean score for the frequency of use of the writing skill compared to that of the PBL groups, and *t*-test result also shows that there is a significant difference between the two groups' frequency of use of the writing skill at the  $p < 0.05$  level, which means that Regular Groups seem to use the writing skill more frequently in their classes than the PBL Groups do in the problem-based learning sessions.

Figure-3 below shows the percentages for the frequency of use of the writing skill for both groups as done with the previous two skills.

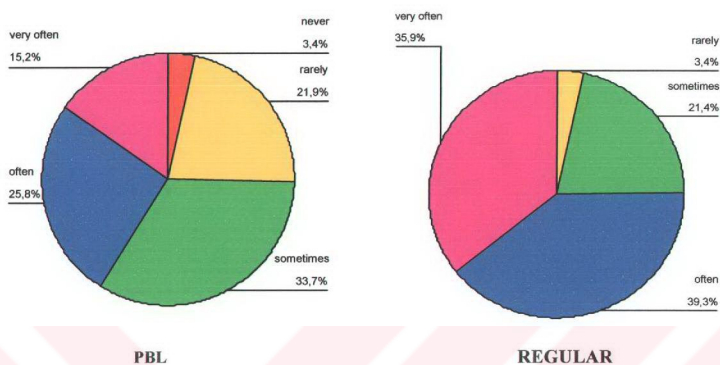


Figure-3: Percentages for the frequency of use of the writing skill

As can be seen in the percentages for PBL groups, of 178 students, 15.2% of them reported 'very often' and 25.8% of them 'often' use of the writing skill, which makes **41%** as a total. In addition, 33.7% of the students in this group said that they were 'sometimes' using the writing skill and 21.9% of them reported a 'rare' use of this skill. Only 3.4% reported that they were 'never' using the writing skill. On the other hand, Regular groups reported very high frequency rate for the writing skill in their classes. 35.9% of them reported 'very often' and 39.3% of them 'often' use of the writing skill, which is equal to **75.2%** as a total, and this naturally indicates a very high rate for the Regular group. In addition, 21.4% of them seems to use the writing skill 'sometimes' and only 3.4% reported a rare use of the writing skill. These percentages clearly indicate that the writing skill is not used so frequently by the PBL groups as it is used by the Regular groups, and in addition, it could be claimed that problem-based learning does not require students to use the writing skill so frequently, or to put differently, does not place a great demand or obligation on the students as in the case of the reading and speaking skills.

As the fourth major skill, the listening skill was the focus of the questionnaire. Table-4 below shows the t-test results for PBL and REGULAR groups on the frequency of use of the listening skill.

Table-4  
Frequency of Use of the Listening Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.36 | .834  | 3.168    | .002*                 |
| REGULAR | 117 | 4.01 | 1.063 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value p<0.05

As can be seen in Table-4, PBL groups scored a higher mean score for the frequency of use of the listening skill, and the t-test result shows that there is a significant difference in the frequency of use of the listening skill between PBL groups and REGULAR groups at the  $p < 0.05$  level; which means that PBL groups seem to use the listening skill more frequently in their PBL sessions than the Regular groups do.

Figure-4 shows the percentages which both groups reported on the frequency of use of the listening skill.



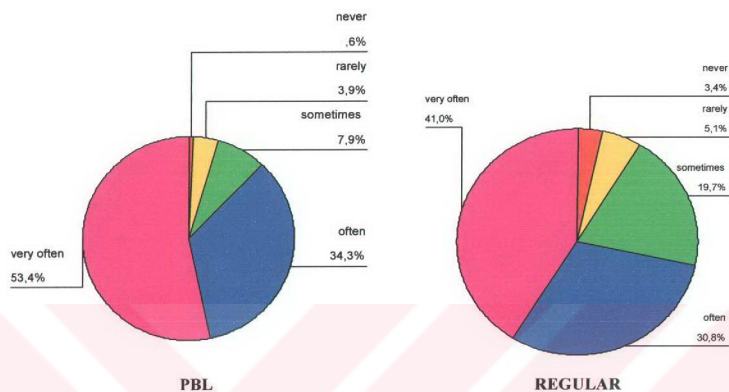
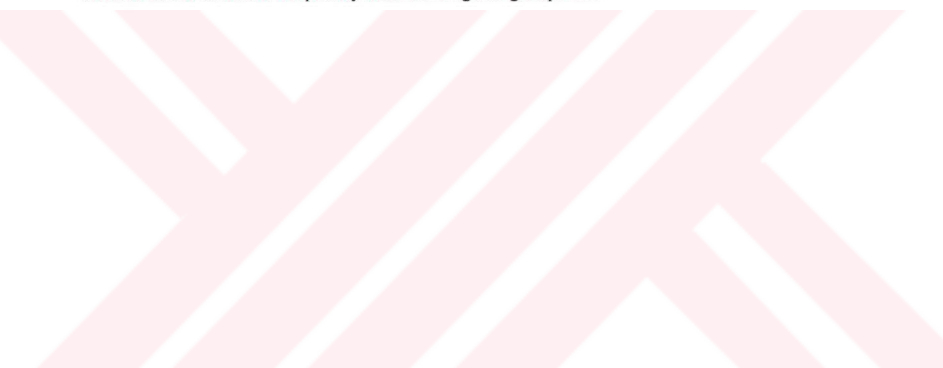


Figure-4: Percentages for the frequency of use of the listening skill

As seen in Figure-4, the PBL groups point to a high frequent use of the listening skill in their PBL sessions. Of 178 students, 53.4 % of them reported 'very often' use of the listening skill and 34.3% of them said that they were 'often' using the listening skill, which makes up **87.7%** of the population as a total, whereas only 7.9% reported that they were 'sometimes' using this skill and the ones who said that they were 'rarely' using this particular skill remained at a very low percentage, 3.9%. On the other hand, as for the percentages of the Regular groups, they seem to have reported a lower percentage than the PBL groups. Of 117 students, 41% reported that they were 'very often' using the listening skill and 30.8% pointed to an 'often' use of this skill; and this equals to **71.8%** as a total. Besides, 19.7% of the students in this group reported that they were 'sometimes' using the listening skill. Although Regular groups seem to use the listening skill at a high frequency rate, these percentages indicate that PBL groups tend to use this particular skill much more frequently in their PBL sessions than the Regular groups do in their classes, which can be interpreted as that problem-based learning creates a demand on

the students for a frequent use of this receptive skill for better participation in the sessions and better comprehension of the material presented.

To sum up, the PBL groups seem to use the reading skill much more frequently than the Regular groups, but the Regular groups also report that they use this skill very often as part of their studies. As for the speaking skill, the PBL groups seem to make a highly significant difference in the frequency of use of this skill as a productive skill. However, as for the writing skill as another productive skill, the same is true for the Regular groups. Finally, as far as listening comprehension is concerned, the PBL groups seem to use it far more frequently than the Regular groups do.



#### 4.2 Findings and Comments on the Frequency of Difficulty in the Use of Language Skills

The second part of the questionnaire in this study aimed to find out the frequency of difficulty the students in both groups were having in the use of each language skill, and to provide a comparison between the PBL and REGULAR groups.

First of all, as done with the first part of the questionnaire, the reading skill was focused on. Table-5 below gives the *t*-test results for the frequency of difficulty in the use of the reading skill.

Table-5  
Frequency of Difficulty in the Reading Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 2.74 | .935  | 1.453    | .147                  |
| REGULAR | 117 | 2.56 | 1.078 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

It seems that the mean scores for both groups do not show much difference when the frequency of difficulty is concerned. As can be seen in Table-5, it was found that there is no significant difference between the PBL groups and the REGULAR groups in terms of the frequency of difficulty in the reading skill. Figure-5 presents the percentages that both groups reported for the frequency of difficulty in the reading skill.

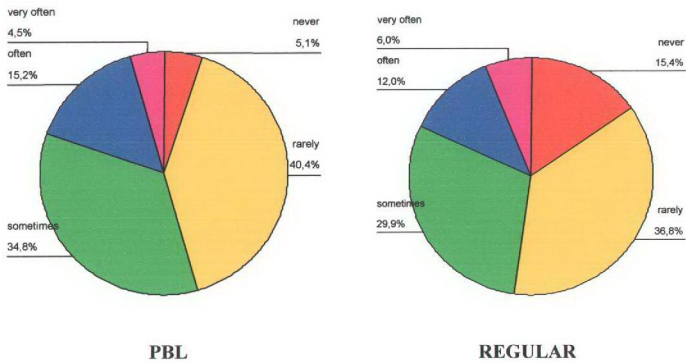


Figure-5: Percentages for the frequency of difficulty in the reading skill

When the percentages are looked at, it is seen that, of 178 students in the PBL group, only 4.5% reported they were 'very often' having difficulty and 15.2% 'often', which makes up approximately 20% of the student population, so based on these percentages it can be said that one-fifth of the students seem to have difficulty in the reading skill frequently as part of PBL sessions. The percentage of the ones who said that they were 'sometimes' having difficulty turned out to be 34.8%, and 40% of the students reported a 'rare' frequency of difficulty in this skill. In addition, the fact that only 5% of the PBL groups was having no difficulty in the reading skill is striking. When the percentages for the Regular Groups are analyzed, it can be seen that they have very close percentages to those of the PBL group; however, the percentage of the ones who reported that they were 'never' having difficulty in the reading skill is 15.4% and is higher than that of the PBL group.

Secondly, Table-6 below shows the t-test results for the frequency of difficulty in the speaking skill.

Table-6  
Frequency of Difficulty in the Speaking Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.10 | .984  | -.886    | .376                  |
| REGULAR | 117 | 3.21 | 1.118 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-6, the mean scores obtained for the frequency of difficulty in the speaking skill turned out to be very close to each other for the two groups, and the *t*-test result shows that there is no significant difference between the PBL and REGULAR groups in terms of frequency of difficulty in the speaking skill.

Figure-6 below shows the percentages that both groups reported for the frequency of difficulty in the speaking skill.

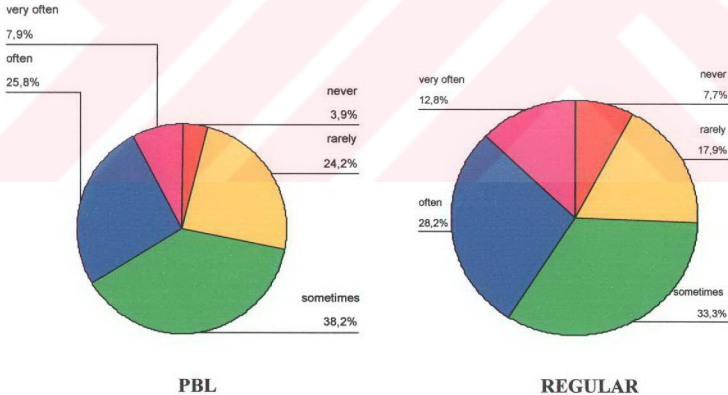


Figure-6: Percentages for the frequency of difficulty in the speaking skill

When the percentages for the frequency of difficulty in the speaking skill for the PBL Groups are looked at, it can be seen that only nearly 7.9% of them reported that they were 'very often' having difficulty, whereas 25.8% said that they were 'often'

having difficulty, which accounts for **33.7%** as a total. 38.2% of them reported that they were ‘sometimes’ having difficulty. The percentage of the ones who said that they were ‘rarely’ having difficulty in the speaking skill turned out to be 24.2%, and the percentage of the ones who were ‘never’ having difficulty remained at 3.9%, which can be interpreted as a very striking result. The percentages reported by the PBL groups lead one to claim that problem-based learning creates a high demand on the students for the use of the speaking skill. When the percentages for the Regular Group are analyzed, it can be seen that 12.8% of them reported that they were ‘very often’ having difficulty and 28.2% of them were ‘often’ having difficulty in the use of the speaking skill, which equals to **41%**. Besides, one-third (33.3%) of the Regular group reported that they were ‘sometimes’ having difficulty, whereas 17.9% of them reported they were ‘rarely’ having difficulty, and only 7.7% said that they ‘never’ had any difficulty in the use of the speaking skill. When the totals for ‘very often’ and ‘often’ categories are compared, it seems that PBL groups signal a slight difference in terms of frequency of difficulty in the speaking skill, and this naturally stems from the fact that the problem-based learning sessions necessitate a frequent use of the speaking skill by the students.

Thirdly, Table-7 presents the t-test results for the frequency of difficulty in the writing skill.

Table-7  
Frequency of Difficulty in the Writing Skill (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 2.65 | .993  | 1.220    | .223                  |
| REGULAR | 117 | 2.50 | 1.096 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-7, the mean scores obtained for the frequency of difficulty in the writing skill turned out to be very close to each other for the two groups, and the t-test result shows that there is no significant difference between the PBL and REGULAR groups in terms of frequency of difficulty in the writing skill, which

indicates that neither PBL nor Regular groups have difficulty in the use of the writing skill.

Figure-7 shows the percentages that both groups reported on the frequency of difficulty in the use of the writing skill, as a productive skill.

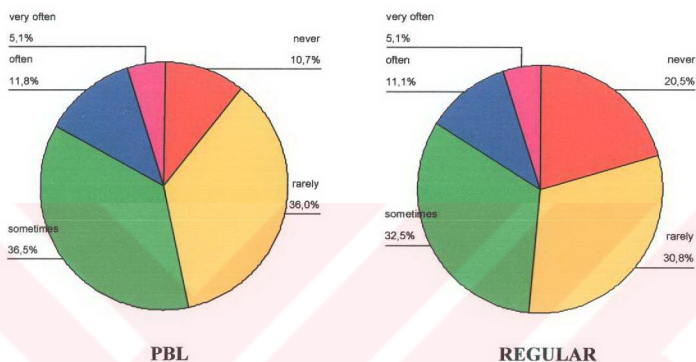


Figure-7: Percentages for the frequency of difficulty in the writing skill

When the percentages are analyzed, it seems that both PBL groups and the Regular groups reported very close percentages for the frequency of difficulty in the writing skill; however, it is amazing to see that the percentage of those who said that they were 'never' having difficulty in the writing skill remained at 10.7% in the PBL Group, whereas the same percentage was twice as much for the Regular Group. That a very low percentage of students was having difficulty in the writing skill in the 'often / very often' category can be attributed to the testing system in their school, which does not require the students to use the writing skill at all.

Finally, Table-8 presents the t-test results for the frequency of difficulty in the listening skill.

Table-8  
Frequency of Difficulty in the Listening Comprehension (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 2.85 | 1.110 | -.464    | .293                  |
| REGULAR | 117 | 2.91 | 1.079 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-8, the mean scores obtained for the frequency of difficulty in listening comprehension seem to be very close to each other for the two groups, and the *t*-test result also shows that there is no significant difference between the PBL and REGULAR groups in terms of frequency of difficulty in listening comprehension as in the case of the other skills, which indicates that neither PBL nor Regular groups have difficulty in listening comprehension as part of their studies.

Figure-8 below shows the percentages that both groups reported on the frequency of difficulty in the listening skill.

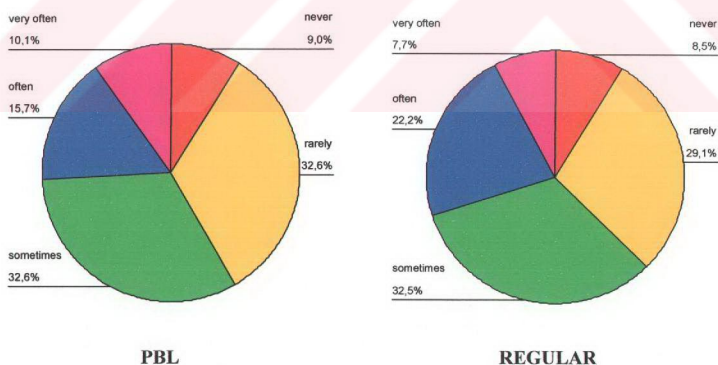


Figure-8: Percentages for the frequency of difficulty in the listening comprehension

Once more, as in the percentages for the writing skill, a similar pattern is observed, that is, the students in both groups reported very close frequencies of difficulty for



listening comprehension as well. A total of 25.8% of the students in the PBL groups reported frequent difficulty in listening comprehension. 32.6% of the students said that they are sometimes having difficulty in this skill, and similarly, another 32.6% of the students reported a rare level of difficulty for this skill. Only 9% of the student population in the PBL groups reported that they are never having any trouble in listening comprehension.

To conclude, as the t-test results and percentages indicate, neither the PBL nor Regular groups seem to differ from each other with respect to the frequency of difficulty in the use of major language skills.



### 4.3 Findings and Comments on the Level of Necessity for the Macro Language Skills for Success in the Field of Study

The third question in this study was to identify students' attitude to the level of necessity for each language skill to achieve success in their fields of study.

First of all, Table-9 below shows the t-test results on the level of necessity for the reading skill for success in the field of study.

Table-9  
Level of Necessity for the Reading Skill for Success in the Field of Study (*t*-test)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.54 | .803 | 2,460    | .015*                 |
| REGULAR | 117 | 4.27 | .970 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value p<0.05

As can be seen in Table-9, the PBL groups have a higher mean score compared to that of the Regular groups, and the t-test result shows that there is a significant difference between the PBL and Regular groups at the  $p < 0.05$  significance level, which means that the students in the PBL groups seem to feel a greater necessity for the reading skill to achieve success in their field of study.

Figure-9 shows the percentages for the level of necessity for the reading skill for success in the field of study for PBL and REGULAR groups.

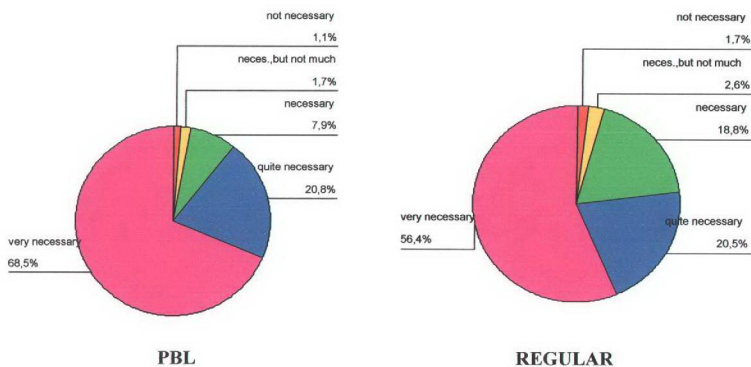


Figure-9: Percentages for the level of necessity for the reading skill for success in the field of study

As can be seen in Figure-9, PBL groups reported a much higher percentage in the category of ‘very necessary’ especially than the Regular groups did for the necessity of the reading skill for success in their field of study. 68.5% of the students in the PBL group said that it was ‘very necessary’ to achieve success in their field of study, and 20.5% of them reported that it was quite necessary, which accounts for **89.3%** as a total. Only 7.9% reported that the reading skill is ‘necessary’. When the percentages for the Regular groups are analyzed, it is seen that the percentage of the ones who said that the reading skill was ‘very necessary’ is 56.4% and is lower than that of the PBL group; and 20.5% of them said that the reading skill was ‘quite necessary’, which makes up **76.9%** as a total; and finally 18.8% said that it was ‘necessary’ for success in their field of study. Based on these percentages, it can be said that the students in the PBL groups express a higher level of necessity for the reading skill when their success in the field of study is concerned.

Secondly, Table-10 below shows the t-test results on the level of necessity for the speaking skill for success in the field of study.

Table-10  
Level of Necessity for the Speaking Skill for Success in the  
Field of Study (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.41 | .893  | 5.035    | .000*                 |
| REGULAR | 117 | 3.71 | 1.320 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-10, the PBL groups seem to have a higher mean score compared to that of the Regular groups, and the *t*-test result shows that there is a significant difference between the PBL and Regular groups at the  $p < 0.05$  significance level, which indicates that students in the PBL groups seem to feel a greater need for the speaking skill to be successful in their field of study. This also means that speaking skill is very important for the students in PBL groups to achieve success in their field of study.

Figure-10 presents the percentages for the level of necessity for the speaking skill for success in the field of study.

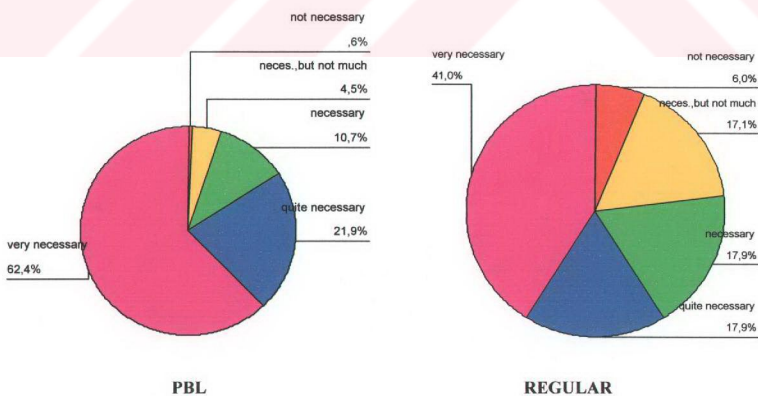


Figure-10: Percentages for the level of necessity for the speaking skill for success in the field of study

Based on the percentages reported by the two groups, it could be claimed that the students in the PBL groups attach a much higher level of necessity to the speaking skill to achieve success in their field of study. A total of **84.3%** of the students in the PBL groups put the necessity for the speaking skill in the 'very necessary' and 'quite necessary' categories on the scale whereas a total of **58.9%** of the students in the Regular groups chose the same categories and this seems to be much lower when compared.

Thirdly, Table-11 below shows the t-test results on the level of necessity for the writing skill for success in the field of study.

Table-11  
Level of Necessity for the Writing Skill for Success in the  
Field of Study (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.86 | 1.114 | -1.900   | .058                  |
| REGULAR | 117 | 4.10 | 1.012 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

Although there seems to be a slight difference between the mean scores of the two groups, the t-test result shows that there is no significant difference between the two groups with respect to the level of necessity for the writing skill for success in the field of study. This indicates that the students in both groups feel a similar level of necessity for the writing skill when their success in the field of study is concerned.

Figure-11 shows the percentages for the level of necessity for the writing skill for success in the field of study.

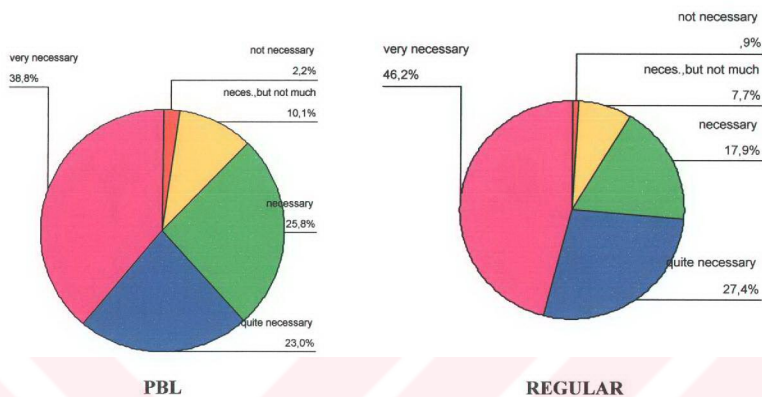


Figure-11: Percentages for level of necessity for the writing skill for success in the field of study

When the percentages are analyzed, it seems that the Regular groups reported a bit higher level of necessity for the writing skill. In the PBL groups, 38.8% of the students reported a very high level of necessity, and 23% of them regarded this skill as ‘quite important’, which makes **61.8%** as a total. As for the Regular groups, 46.2% of the students reported a high rate of frequency, and 27.4% of them expressed a ‘quite necessary’ level of necessity for the writing skill for success in their field of study, forming **73.6%** as a total; however, it can be seen that there is not much variation between each category on the 1-5 scale. Besides, it can be said that the students in both groups remain at a similar distance to the writing skill for success in their field of study in spite of the fact that the Regular groups tend to express a little higher level of necessity.

Finally, Table-12 below shows the t-test results for the level of necessity for listening comprehension for success in the field of study.

Table-12  
Level of Necessity for Listening Comprehension for Success in the  
Field of Study (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.44 | .823  | 4.209    | .000*                 |
| REGULAR | 117 | 3.91 | 1.210 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-12, PBL groups seem to have a much higher mean score compared to that of the Regular groups, and the *t*-test result shows that there is a significant difference between the PBL and Regular groups at the  $p < 0.05$  significance level, which means that students in the PBL groups seem to feel a greater necessity for listening comprehension for success in their field of study.

Figure-12 presents the percentages for the level of necessity for listening comprehension for success in the field of study.

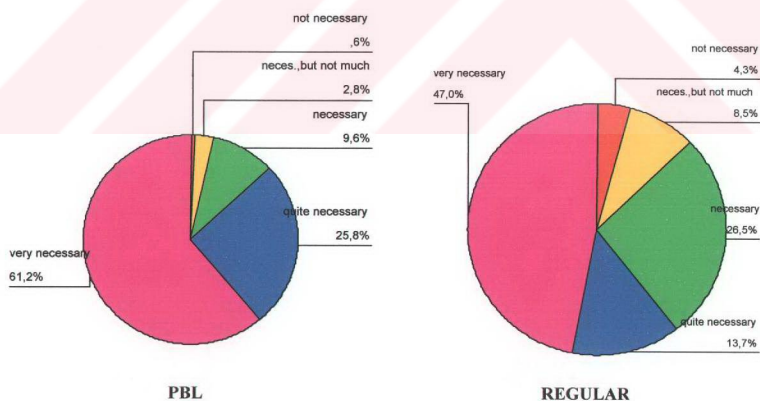


Figure-12: Percentages for the level of necessity for listening comprehension for success in the field of study

When the percentages are looked at, it seems that the PBL groups reported a much higher level of necessity for listening comprehension for success in their fields of study. The total percentage for 'quite necessary' and 'very necessary' categories for the PBL groups turned out to be **87%**, whereas the total percentage for the Regular groups remained at **60.7**, which indicates a much higher level of necessity on behalf of the PBL groups. This result is also an indication of the fact that the students in the PBL groups attach more importance to this skill.

In conclusion, based on the t-test results and percentages on the level of necessity for the macro languages skills for success in the field of study, the PBL groups seem to feel greater necessity for the reading skill, speaking skill and listening comprehension than the Regular groups do. As far as writing skill is concerned, there seems to be no significant difference between the two groups, but it seems that 62% of the students in the PBL groups consider that the writing skill is highly necessary for them, and 25.8% of them seem to agree that this skill is necessary for them.



#### 4.4 Findings and Comments on the Importance of Macro Language Skills for PBL Groups as Part of PBL Sessions and Regular Groups

Another important aim of this study was to find out how important each major language skill is for the students in the PBL groups as part of the PBL sessions, comparing with the attitude of the students in the Regular groups as part of their classes.

First of all, Table-13 below shows the t-test results for PBL and Regular groups on the importance of the reading skill.

Table-13  
Importance of the Reading Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.38 | .856  | 4.993    | .000*                 |
| REGULAR | 117 | 3.77 | 1.117 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-13, the PBL groups have a much higher mean score when compared to that of the Regular groups, and the t-test result shows that there is a significant difference between the PBL and the Regular groups at the  $p < .05$  significance level, and this indicates that as part of the problem-based learning sessions the students in the PBL groups consider the reading skill more important than the students in the Regular groups do.

Figure-13 shows the percentages on the importance of the reading skill for both groups.

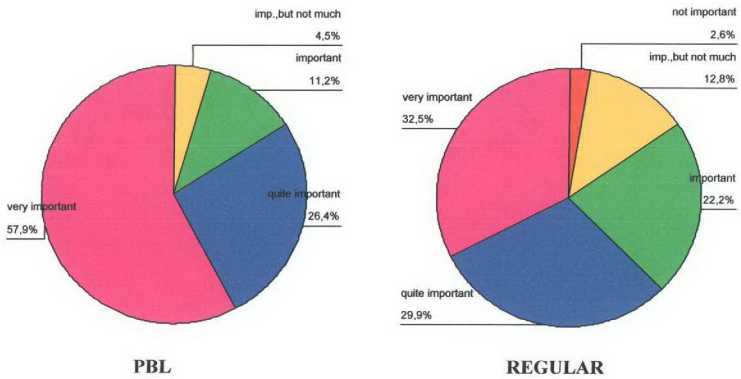


Figure-13: Percentages on the importance of the reading skill

When the percentages on the importance of the reading skill as part of problem-based learning sessions are looked at, the students in the PBL groups seem to report, with a high percentage, that the reading skill is very important. 57.9% of them report that this skill is ‘very important’ and 26.4% of them say that it is ‘quite important’, which accounts for **84.3%** of the total. Only 11.2% report a relatively lower level of importance for the reading skill. On the other hand, when the percentages for the Regular groups are analyzed, it is seen that the level of importance for the reading skill goes down. 32.5% of the students say that the reading skill is ‘very important’, and 29.9% of the students report that it is ‘quite important’, and this makes up **62.4%** as a total. 22.2% of the population in the Regular groups reports a relatively lower level of importance for the reading skill. Based on these figures, it can be claimed that the great difference in the percentages for the ‘very important’ and ‘quite important’ categories in particular is the result of the fact that problem-based learning sessions require the students to make use of the reading skill quite frequently.

Secondly, Table-14 below presents the t-test results on the importance of the speaking skill for both groups.

Table-14  
Importance of the Speaking Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.39 | .838  | 8.957    | .000*                 |
| REGULAR | 117 | 3.20 | 1.268 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As seen in Table-14, the PBL groups seem to have a much higher mean score compared to that of the Regular groups, and the *t*-test result shows that there is a significant difference between the two groups at the  $p < .05$  significance level, which proves that the students in the PBL groups find the speaking skill more important than the students in the Regular groups do. Besides, this result also seems to be a reflection of the fact that the PBL sessions require a frequent use of the speaking skill.

Figure-14 shows the percentages on the importance of the speaking skill for the PBL and Regular groups.

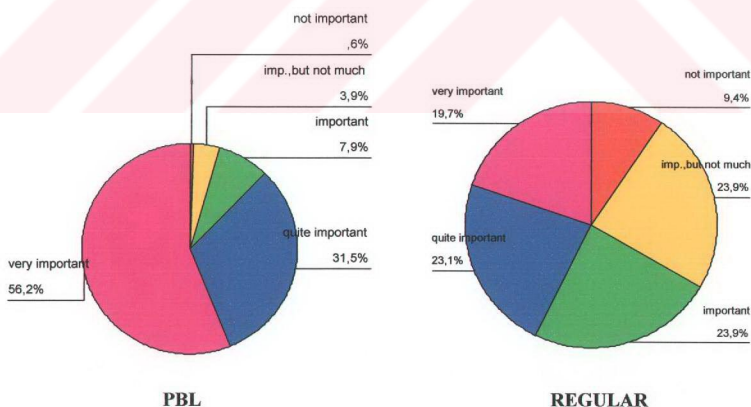


Figure-14: Percentages on the importance of the speaking skill

When the percentages on the importance of the speaking skill as part of the PBL sessions are looked at, it can be seen that the students in the PBL groups give much greater importance to the speaking skill than those in the Regular groups do. 56.2% of the students in the PBL groups reported that the speaking skill is ‘very important’ and 31.5% of them said that it is ‘quite important’, which is equal to 87.7% as a total, and indicates a high percentage as in the level of importance of the reading skill. When compared with the reading skill, it seems that the students attach slightly more importance to the speaking skill in the PBL sessions. Only 7.9% of the students place the speaking skill at a relatively lower level of importance. On the other hand, of the students in the Regular groups, only 19.7% pointed out that the speaking skill is ‘very important’ and 23.1% of them said that it is ‘quite important’, which accounts for only 42.8% of the total. 23.9% of the students in the regular groups give relatively lower importance to the speaking skill. The results indicate that the students in the PBL groups perceive the speaking skill as a very important skill, and in this sense they seem to make a striking difference.

Thirdly, Table-15 shows the t-test results on the importance of the writing skill for both groups.

Table-15  
Importance of the Writing Skill (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.02 | 1.289 | -4.146   | .000*                 |
| REGULAR | 117 | 3.62 | 1.104 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

When Table-15 is analyzed, it can be seen that the Regular groups seem to have a higher mean score than the PBL groups, and the t-test result shows that there is a significant difference between the two groups at the  $p < .05$  significance level, which indicates that the students in the Regular groups give more importance to the writing skill when compared with the tendency of the students in the PBL groups. This result could be claimed to stem from the fact that problem-based learning sessions do

not require the use of the writing skill so much and the students seem to give less importance to this skill.

Figure-15 below shows the percentages on the importance of the writing skill for both groups.

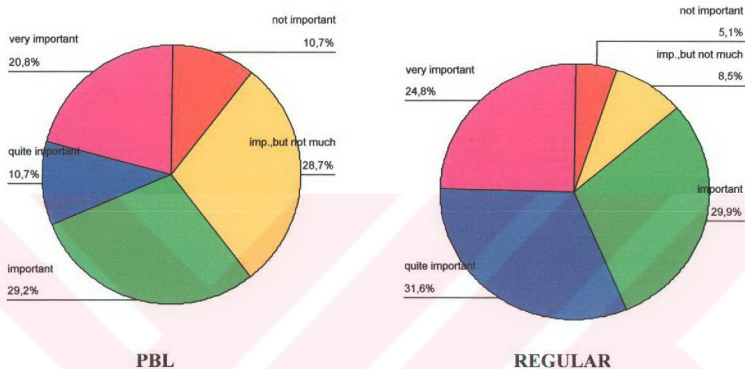


Figure-15: Percentages on the importance of the writing skill

According to the percentages, it can be said that the students in the PBL groups give less importance to the writing skill than the students in the Regular groups. Whereas a total of **31.5%** of the students in the PBL groups put the writing skill in the category of 'very important' and 'quite important', **56.4%** of the students in the Regular groups placed this skill in the so-called categories. In both groups 29% of the students similarly considered the writing skill at a lower level of importance, which clearly draws the attention. On the other hand, the percentage of the ones who reported that the writing skill is not so much important is 28.7% for the PBL groups whereas the same percentage is 8.5% for the Regular groups. Finally, the percentage of the ones who did not give importance to this skill at all as part of the PBL sessions is 10.7% and it is almost twice as much as that of the Regular group.

Finally, Table-16 shows the t-test results on the importance of listening comprehension for both groups.

Table-16  
Importance of Listening Comprehension (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.28 | .925  | 4.998    | .000*                 |
| REGULAR | 117 | 3.63 | 1.171 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As seen in Table-16, the PBL groups seem to have a much higher mean score compared to that of the Regular groups, and the *t*-test result shows that there is a significant difference between the two groups at the  $p < .05$  significance level, which means that the students in the PBL groups give greater importance to listening comprehension than the students in the Regular groups do. Besides, as in the case of the speaking skill, this result also seems to be a reflection of the fact that the PBL sessions require students to listen to their instructors and their peers and understand the language being used.

Figure-16 shows the percentages on the importance of listening comprehension for the two groups.

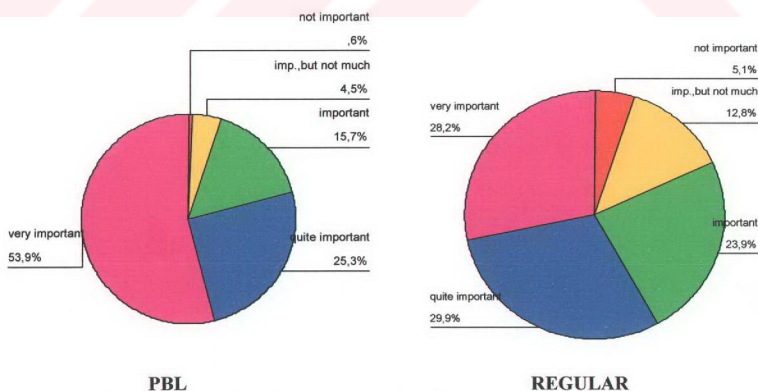


Figure-16: Percentages on the importance of listening comprehension

When the percentages on the importance of the listening skill are looked at, it seems that the students in the PBL groups give much greater importance to listening comprehension as part of the PBL sessions than those in the Regular groups do. 53.9% of the students in the PBL groups reported that listening comprehension is 'very important', and 25.3% of them said that it is 'quite important', which is equal to **79.2%** as a total, and indicates a high percentage as in the level of importance of the reading and speaking skills. In this group, 15.7% of the students place listening comprehension at a relatively lower level of importance. On the other hand, of the Regular groups 28.2% of the students pointed out that listening comprehension is 'very important' and 29.9% of them said that it is 'quite important', which accounts for **58.1%** of the total. 23.9% of the students in the regular groups give relatively lower importance to this skill. The results indicate that the students in the PBL groups perceive listening comprehension as an important skill.

In conclusion, as the t-test results and percentages on the importance of the macro languages skills show, the students in the PBL groups consider that reading skill, speaking skill and listening comprehension have great importance for them as part of their PBL sessions, whereas the students in the Regular groups differ from the students in PBL groups only when importance given to the writing skill is concerned.

#### 4.5 Findings and Comments on the Importance of the Macro Language Skills with Respect to Achieving Success in Future Career

One focus of this study was to find out the students' general attitude to the importance of language skills with respect to achievement of success in their future career and determine whether they have similar level of long-term motivation in this sense.

First of all, Table-17 below shows the t-test results for PBL and Regular groups on the importance of the reading skill with respect to achieving success in their future career life.

Table-17  
Importance of the Reading Skill with Respect to Achieving  
Success in Future Career (*t*-test)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.54 | .752 | -.894    | .372                  |
| REGULAR | 117 | 4.62 | .728 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

When the importance of the reading skill with respect to achievement of success in a future career is concerned, it seems that both groups scored very close mean scores and the average mean score for both groups falls in the category of 'very important', and in this sense it can be said that there is no difference between the two groups' attitudes. This means that the students in both groups consider that the reading skill is very important to achieve success in their future career and this skill seems to serve to their long-term motivation.

Figure-17 below presents the percentages reported by the students in both groups on the importance of the reading skill with respect to achievement of success in their future career after their graduation.



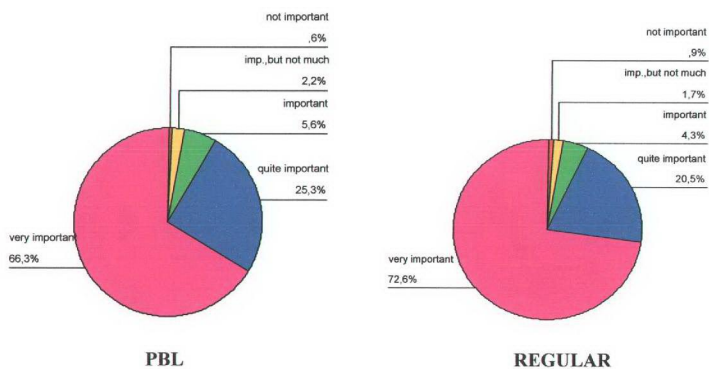


Figure-17: Percentages for the importance of the reading skill with respect to achieving success in future career

As can be seen in Figure-17, both groups reported very high percentages on the importance of the reading skill for achieving success in their future career. 66.3% of the students in the PBL group reported that the reading skill is 'very important' and 25.3% of them said that it is quite important, which equals to **91.6%** as a total. Similarly, in the Regular groups, 72.6% of the students considered the reading skill as 'very important' and 20.5% of them reported that it is 'quite important', which makes **93.1%** as a total. These percentages also indicate that the students in both groups regard the reading skill equally important for achieving success in their future career, and in this sense, the reading skill seems to serve their long-term motivation.

Secondly, Table-18 below presents the t-test results for both groups on the importance of the speaking skill with respect to achieving success in future career life.

Table-18  
Importance of the Speaking Skill with Respect to Achieving  
Success in Future Career (*t*-test)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.61 | .760 | -.327    | .744                  |
| REGULAR | 117 | 4.64 | .701 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

According to Table-18, both groups seem to have scored very close mean scores, and as in importance of the reading skill, the average mean score for both groups falls in the category of 'very important' again, and in this sense it can be said that there is no difference between the two groups' attitudes. This also means that the students in both groups think that the speaking skill is equally very important to achieve success in their future career and this skill also seems to serve to their long-term motivation.

Figure-18 shows the percentages reported by the students in both groups on the importance of the speaking skill with respect to achievement of success in their future career.

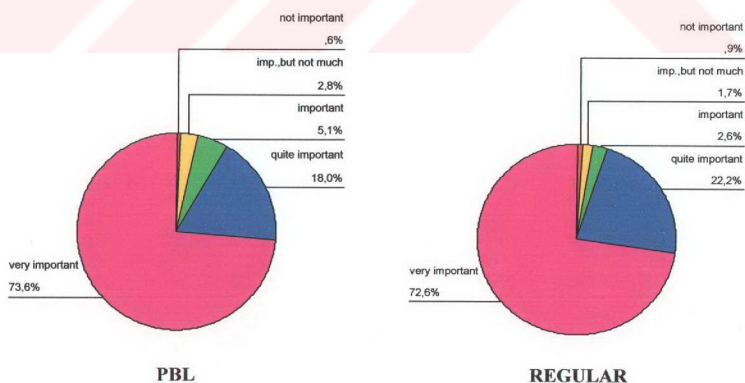


Figure-18: Percentages for the importance of the speaking skill with respect to achieving success in future career

As seen in Figure-18, as in the percentages for the reading skill, the students in both groups reported very high percentages on the importance of the speaking skill. In the PBL groups, 73.6% of the students considered the speaking skill as 'very important' and 18% of them said that it is 'quite important', and this makes **91.6%** as a total. In the Regular groups, 72.6% of the students regarded this skill as 'very important' and 22.2% of them reported that it is 'quite important', which accounts for **94.8%** as a total. Based on these high percentages, it can be said that the students in both groups are aware of the fact that they will require the speaking skill for achieving success after their graduation.

Thirdly, Table-19 shows the t-test results on the importance of the writing skill for both groups with respect to achieving success in future career life.

Table-19  
Importance of the Writing Skill with Respect to Achieving  
Success in Future Career (*t*-test)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.21 | .990 | -2.766   | .006*                 |
| REGULAR | 117 | 4.50 | .837 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-19, the average scores for both groups fall in the category of 'very important', but it seems that the Regular groups scored a higher mean score on the importance of the writing skill, and the *t*-test result shows that there is a significant difference at the level of  $p < 0.05$ . This result leads one to say that although the PBL groups perceive the writing skill as an important skill for achievement of success in their future career, the Regular groups appear to give more importance to it in this sense. On the other hand, in spite of the fact that the PBL groups give less importance to the writing skill in problem-based learning sessions (See Table-15), it can be claimed that this skill still remains as an important skill for them in order to achieve success in their future career.

Figure-19 below presents the percentages reported by the students in both groups on the importance of the writing skill with respect to achieving success in future career.

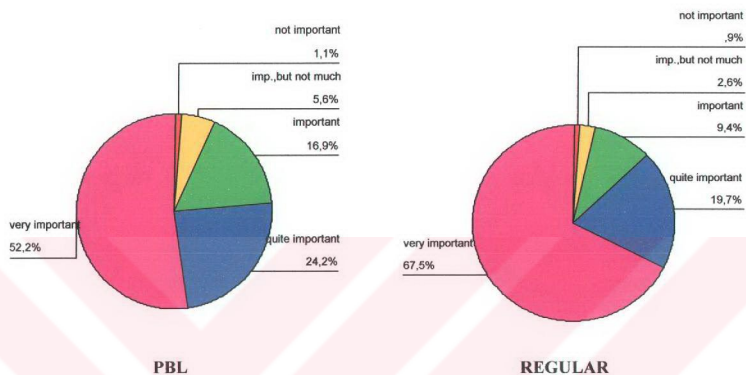


Figure-19: Percentages for the importance of the writing skill with respect to achieving success in future career

As can be seen in Figure-19, whereas **52.2%** of the students in the PBL groups reported that the writing skill is 'very important' for achieving success in their future career, **67.5%** of the students in the Regular groups regarded this skill in the same category. If the percentage for the category of 'quite important' is added, it seems that the PBL groups score a total of **76.4%**. Similarly, the Regular groups score a total of **87.2%**. This difference between the percentages indicates that the students in the Regular groups give more importance to the writing skill for achievement of success in their future career life than the students in the PBL groups do.

Finally, Table-20 shows the t-test results on the importance of listening comprehension for both groups for the same purpose.

Table-20  
Importance of the Listening Skill with Respect to Achieving  
Success in Future Career (*t*-test)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.62 | .704 | -.305    | .761                  |
| REGULAR | 117 | 4.65 | .735 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-20, both groups scored very close mean scores on the importance of listening comprehension, and as in the importance of the reading skill and the speaking skill, the average mean score for both groups falls in the category of 'very important' again, and in this sense it can be said that there is no difference between the two groups' attitudes. This also means that the students in both groups consider that listening comprehension is equally very important for achieving success in their future career and this skill also seems to serve to their long-term motivation.

Figure-20 below presents the percentages reported by the students in both groups on the importance of listening comprehension with respect to achieving success in their future career life.

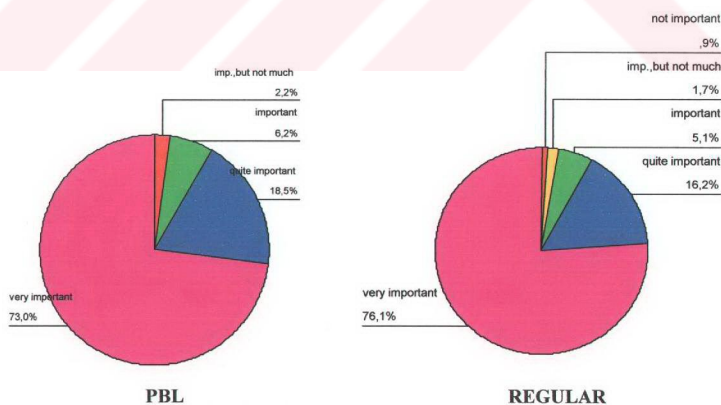


Figure-20: Percentages for the importance of listening comprehension with respect to achieving success in future career

As can be seen in Figure-20, in the PBL groups, 73% of the students considered listening comprehension as 'very important', and 18.5% of them reported that it is 'quite important', which totally makes **88.8%**. Similarly, in the Regular groups, 76.1% of the students considered listening comprehension as 'very important', and 16.2% of them reported that it is 'quite important', which accounts for **92.3%** as a total. Based on these high percentages, it can be said that the students in both groups perceive listening comprehension equally important.

To sum up, based on the mean scores, the t-test results and the percentages, it can be said that the students in both PBL and Regular groups perceive each language skill as 'very important' as far as achievement of success is concerned. The only difference between the two groups was found in their attitude to the writing skill. The students in the Regular groups seem to give more importance to this skill than the PBL groups do. In other words, they consider that they will need all these languages skills as part of their future career.

#### 4.6 Findings and Comments on the Students' Attitudes to Specific Speaking Skills with Respect to Use of English

This part of the study focuses, in particular, on the attitudes of the students in the PBL and Regular groups to the specific sub-speaking skills with respect to the use of English. The skills listed in this section of the questionnaire were determined, considering the procedures followed in the problem-based learning sessions and the content of the prep-program courses at Dokuz Eylül University, The School of Foreign Languages, as well as the students' and lecturers' suggestions. The question items were simplified to enable the students to understand without any questions in their mind, and to this end, confusing terms were omitted or clarified. The data for this section were evaluated in terms of t-test results and percentages as in the previous sections in order to identify the specific speaking skills that the PBL groups tend to use preferably as part of their problem-based learning sessions.

The first skill in this section deals with 'being able to participate in and leading oral discussions in English with other members'. The second version of the questionnaire given to the Regular group did not contain the term "problem-based learning session" and it was replaced by "classes" or "in your classes". Table-21 presents the t-test results on this first specific sub-speaking skill for the two groups.

Table-21  
Students' Attitudes to 'Being Able to Participate in and Leading Oral Discussions in English with Other Members' (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.42 | .800  | 6.835    | .000*                 |
| REGULAR | 117 | 3.53 | 1.243 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-21, the PBL groups scored a much higher mean score, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. This means that the students in the PBL groups give much

more importance to participating in and leading oral discussions in English with the other members in their problem-based learning sessions.

Figure-21 shows the percentages for both groups' attitude to 'being able to participate in and leading oral discussions in English with other members'.

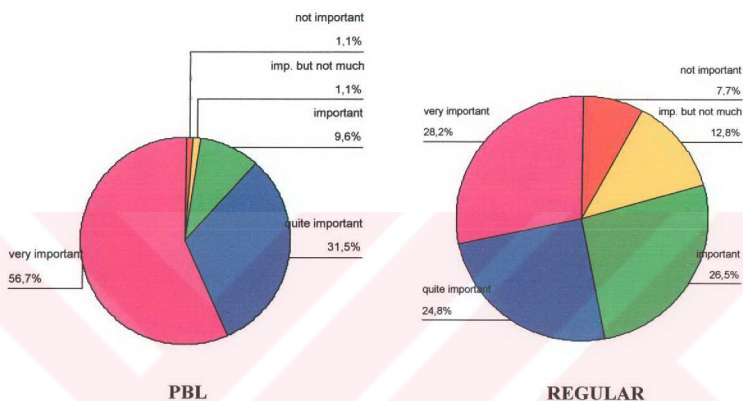


Figure-21: Percentages for 'being able to participate in and leading oral discussions in English with other members'

As can be seen in Figure-21, The PBL groups seem to have scored very highly in comparison with the Regular groups. 56.7% of the students in the PBL groups reported that 'participating in and leading oral discussions in English with other members' is 'very important' and 31.5% of them said that it is 'quite important', which equals **87.2%** as a total. Only 9.6% of the students in the PBL groups placed this sub-speaking skill at a lower level of importance. On the other hand, in the Regular groups, 28.2% of the students regarded this skill as 'very important', and 24.8% of them reported that it is 'quite important', which accounts for **53%** as a total. It seems that 26.5% of the students reported a lower level of importance for this sub-speaking skill. It is a striking result that the percentage of the students in the Regular groups who said that this skill is not so much important is 12.8%, and the percentage of the ones who said that this skill is not important at all is 7.7%, which together equals a total of **20.5%**. These percentages also indicate that the students in



the PBL groups give much more importance to ‘participating in and leading oral discussions in English with other members’ as part of problem-based learning sessions.

The second sub-speaking skill in this section is ‘being effective in activities that require class participation in English’, and Table-22 presents the t-test results for the two groups.

Table-22  
Students’ Attitudes to ‘Being Effective in Activities That Require  
Class Participation in English’ (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of<br>Significance |
|---------|-----|------|-------|----------|--------------------------|
| PBL     | 178 | 4.01 | 1.014 | 3.660    | .000*                    |
| REGULAR | 117 | 3.51 | 1.222 |          |                          |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-22, the PBL groups scored a much higher mean score, and t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, which means that the students in the PBL groups give much more importance to ‘being effective in activities that require class participation in English’ in their problem-based learning sessions.

Figure-22 shows the percentages for both groups’ attitude to ‘being effective in activities that require class participation in English’.

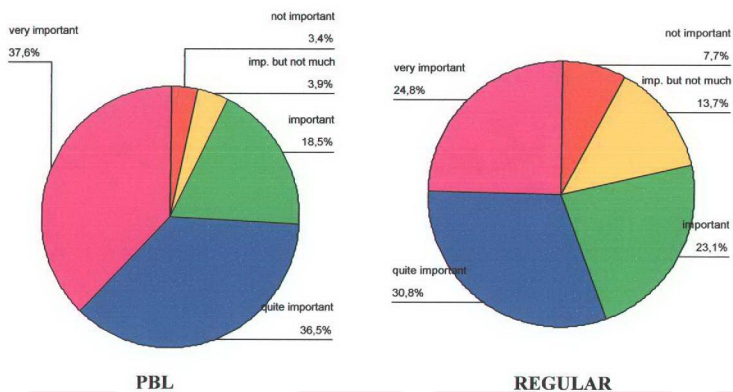


Figure-22: Percentages for ‘being effective in activities that require class participation in English’

As can be seen in Figure-22, The PBL groups seem, as in the first sub-speaking skill, to have scored very highly in comparison with the Regular groups. 37.6% of the students in the PBL groups reported that ‘being effective in activities that require class participation in English’ is ‘very important’ and 36.5% of them said that it is ‘quite important’, which is equal to **74.1%** as a total. In addition, 18.5% of the students in the PBL groups placed this sub-speaking skill at a lower level of importance. On the other hand, in the Regular groups, 24.8% of the students regarded this sub-skill as ‘very important’, and 30.8% of them reported that it is ‘quite important’, which accounts for **55.6%** as a total. Similarly, 23.1% of the students reported a lower level of importance for this sub-speaking skill, which is again a bit higher than that of the PBL groups. These percentages also indicate that the students in the PBL groups give much more importance to ‘being effective in activities that require class participation in English’ as part of the problem-based learning sessions.

The third speaking skill in this section deals with ‘being able to say what I want to say quickly enough’, and Table-23 below presents the t-test results for the two groups.

Table-23  
Students' Attitudes to 'Being Able to Say What I Want to Say Quickly Enough' (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.97 | 1.073 | 0.866    | .387                  |
| REGULAR | 117 | 3.85 | 1.222 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-23, the PBL and Regular groups seem to have scored very close mean scores, and the *t*-test result shows that there is no significant difference between the attitudes of the students in the two groups to this sub-speaking skill, which means that the students in both groups give a similar level of importance to 'being able to say what I want to say quickly enough'.

Figure-23 below gives the percentages for both groups' attitude to 'being able to say what I want to say quickly enough'.

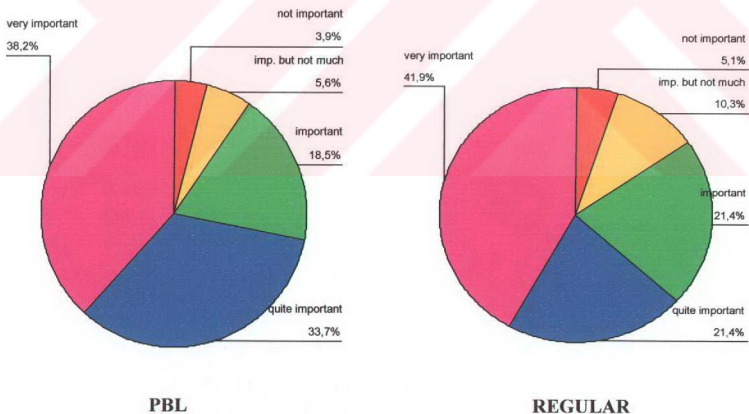


Figure-23: Percentages for 'being able to say what I want to say quickly enough'

As can be seen in Figure-23, there seems to be a similar variation between the percentages reported by the two groups. 38.2% of the students in the PBL groups

report that 'being able to say what I want to say quickly enough' is 'very important' and 33.7% of the students say that this sub-skill is 'quite important', and this is equal to **71.9%** as a total. In addition, 18.5% of the students placed this sub-speaking skill at a lower level of importance. As for the percentages reported by the Regular groups, 41.9% of the students reported that this sub-skill is 'very important' and 21.4% said that it is 'quite important', which forms **63.3%** of the total, signaling **8.6%** difference. These percentages also indicate that there is not much difference between the attitudes of the PBL and Regular groups to this sub-skill. Also, even though there is not much difference between the two groups' tendency, it can be said that 'saying what I want to say quickly enough' is perceived positively by both groups and the PBL groups seem to give slightly more importance to this sub-speaking skill.

The fourth speaking skill in this section focuses on 'being able to say things accurately without making pronunciation mistakes while using English orally', and Table-24 gives the t-test results for the two groups.

Table-24  
Students' Attitudes to 'Being Able to Say Things Accurately without Making Pronunciation Mistakes While Using English Orally (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.54 | 1.042 | 2.260    | .025*                 |
| REGULAR | 117 | 3.25 | 1.144 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-24, the PBL groups seem to have scored relatively a higher mean score than the Regular group for this sub-speaking skill, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, which means that the students in the PBL groups give relatively more importance to 'being able to say things accurately without making pronunciation mistakes while using English orally' in problem-based learning sessions.

Figure-24 shows the percentages for both groups' attitude to 'being able to say things accurately without making pronunciation mistakes while using English orally'.

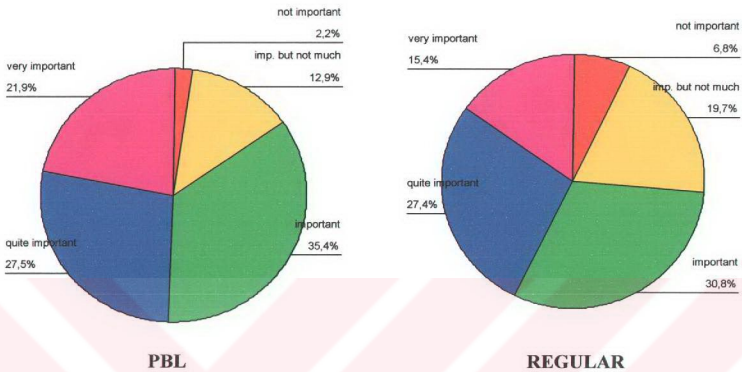


Figure-24: Percentages for 'being able to say things accurately without making pronunciation mistakes while using English orally'

As seen in Figure-24, 21.9% of the students in the PBL groups reported that 'being able to say things accurately without making pronunciation mistakes while using English orally' is 'very important', and 27.5% of them regarded it as 'quite important', which accounts for **49.4%** as a total. Additionally, 35.4% of the students placed this sub-skill at a lower level of importance. As for the Regular groups, 15.4% of the students reported that this sub-skill is 'very important' and 27.4% said that it is quite important, which equals **42.8%** as a total. In this group, 30.8% of the students placed this skill at a lower level of importance. It seems that almost one-third of the students in both groups placed this sub-skill in the third category on the scale. Also, **12.9%** of the students in the PBL groups said that this skill is 'not so much important' whereas **19.7%** of the students in the Regular groups responded at this level, indicating a significant difference between the two groups. Based on these percentages, it can be said that the students in the PBL groups give slightly more importance to 'saying things accurately without making pronunciation mistakes while using English orally' than the Regular groups do; however, making pronunciation mistakes is not seen as a great obstacle by the students in both groups.

The fifth speaking skill focuses on students' attitudes to 'being able to express myself even if I make grammar mistakes', and Table-25 shows the t-test results for the two groups.

Table-25  
Students' Attitudes to 'Being Able to Express Myself Even If  
I Make Grammar Mistakes' (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.89 | 1.028 | 1.724    | .086                  |
| REGULAR | 117 | 3.67 | 1.152 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As seen in Table-25, the mean scores for both groups fall in the fourth category on the scale and remain very close even though the PBL groups scored a bit higher than the Regular groups, and as the t-test result shows there is no significant difference between the two groups' attitude to 'being able to express myself even if I make grammar mistakes'. This means that the students in both groups give similar importance to this speaking skill.

Figure-25 below presents the percentages for both groups' attitude to 'being able to express myself even if I make grammar mistakes'.

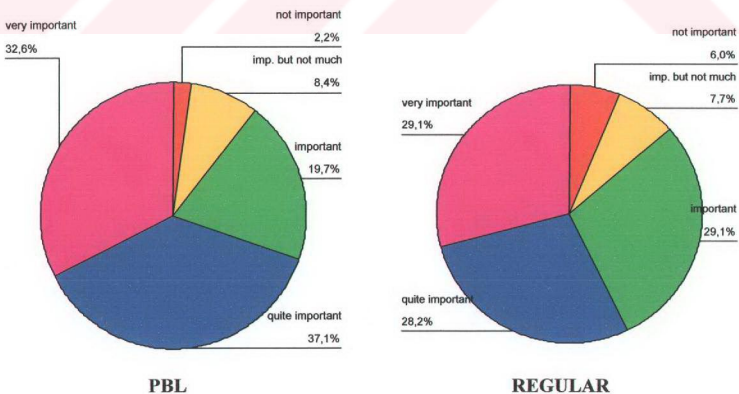


Figure-25: Percentages for 'being able to express myself even if I make grammar mistakes'

When the percentages for this sub-skill are analyzed, it can be seen that there is a similar variation between the two groups. In the PBL groups, 32.6% of the students reported that ‘being able to express myself even if I make grammar mistakes’ is ‘very important’, and 37.1% of the them regarded it as ‘quite important’, which accounts for **69.7%** as a total. On the other hand, as for the Regular group, 29.1% of the students saw this skill as ‘very important’ and 28.2% of them as ‘quite important’, making a total of **57.3%**. Although there seems to be a difference between the two groups in terms of the total percentages for ‘very important’ and ‘quite important’ categories, the main difference lies in the third category (important) on the scale. **19.7%** of the students in the PBL groups placed this sub-skill at a lower level of importance whereas **29.1%** of the students in the Regular groups placed this skill at a similar level of importance. Based on the mean scores and the percentages, it can be said that the students in the PBL groups perceive ‘being able to express myself even if I make grammar mistakes’ more positively than the students in the Regular groups.

The sixth speaking skill focuses on students’ attitudes to ‘being able to make accurate sentences in line with grammar rules’, and Table-26 shows the t-test results for the two groups.

Table-26  
Students’ Attitudes to ‘Being Able to Make Accurate Sentences  
in Line with Grammar Rules’ (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.37 | 1.187 | 1.224    | .222                  |
| REGULAR | 117 | 3.19 | 1.259 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

According to Table-26, the mean scores for both groups fall in the fourth category on the scale and remain very close although the PBL groups scored a little higher than the Regular groups, and as the t-test result shows there is no significant difference between the two groups’ attitude to ‘being able to make accurate sentences in line

with grammar rules'. This means that the students in both groups consider this speaking skill at a similar level of importance.

Figure-26 presents the percentages for both groups' attitude to 'being able to make accurate sentences in line with grammar rules'.

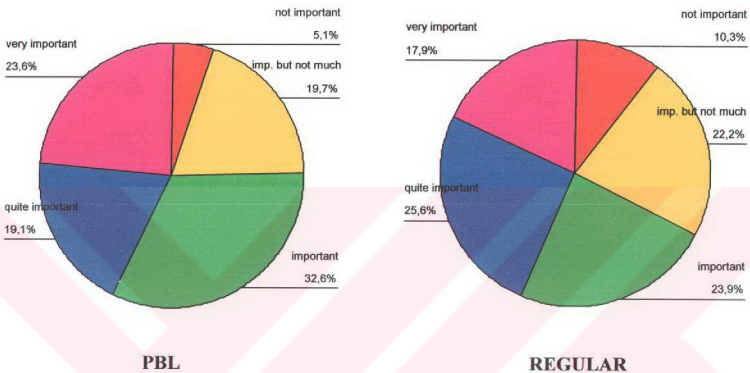


Figure-26: Percentages for 'being able to make accurate sentences in line with grammar rules'

As seen in Figure-26, 23.6% of the students in the PBL groups reported that 'being able to make accurate sentences in line with grammar rules' is 'very important', and 19.1% of them regarded it as 'quite important', which accounts for **42.7%** as a total. Additionally, 32.6% of the students placed this sub-skill at a lower level of importance. As for the Regular groups, 17.9% of the students reported that this skill is 'very important' and 25.6% said that it is 'quite important', which equals **43.5%** as a total. In this group, 23.9% of the students placed this skill at a lower level of importance. Also, **19.7%** of the students in the PBL groups said that this skill is 'not so much important' whereas **22.2%** of the students in the Regular groups responded at this level. Based on these percentages, it can be said that the students in both groups give similar importance to 'being able to make accurate sentences in line with grammar rules'. The reason why the students in the PBL groups scored very low for this sub-skill can be attributed to the fact that, as part of problem-based



learning sessions, they are expected to discuss the scenarios they are given and reach conclusions; therefore, ‘making sentences in line with grammar rules’ seems to be given less importance by the students.

The seventh speaking skill in this section is ‘being able to make complex sentences’ and Table-27 gives the t-test results for the two groups.

Table-27  
Students’ Attitudes to ‘Being Able to Make Complex Sentences’ (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 2.87 | 1.277 | .297     | .767                  |
| REGULAR | 117 | 2.82 | 1.243 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-27, the mean scores for the two groups did not differ much and remained very close to each other, and the t-test result shows that there is no significant difference between the two groups’ attitude to ‘being able to make complex sentences’. Also, it is clear that the level of importance that both groups considered for this particular skill turned out to be rather low.

Figure-27 gives the percentages for both groups’ attitude to ‘being able to make complex sentences’.

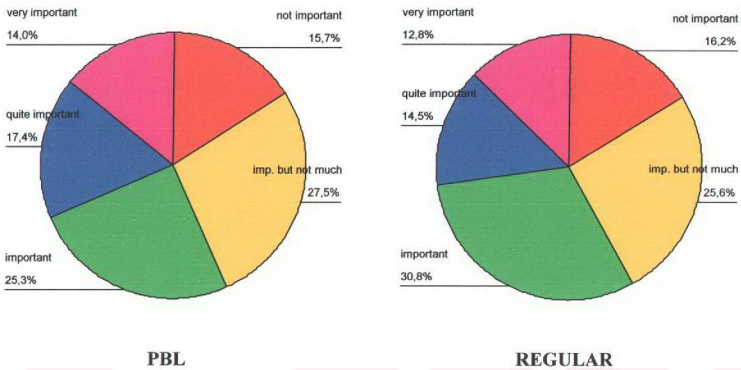


Figure-27: Percentages for 'being able to make complex sentences'

As seen in Figure-27, both groups reflected a similar variation for this sub-speaking skill. 14% of the students in the PBL groups reported that 'making complex sentences' is 'very important', and 17.4% of the students regarded this skill as 'quite important', which is equal to **31.4%** as a total. In the same group, 25.3% of the students placed this sub-skill at a lower level of importance. 27.5% of the students said that this skill is 'not so much important' and 15.7% of them ignored this skill totally saying that it is not important at all. As for the Regular groups, 12.8% of the students reported that 'making complex sentences' is 'very important', and 14.5% of the students regarded this skill as 'quite important', which is equal to **27.3%** as a total. In the same group, 30.8% of the students placed this sub-skill at a lower level of importance. 25.6% of the students said that this skill is 'not so much important' and 16.2% of them said that it is 'not important at all'. These percentages also prove that 'making complex sentences' is not perceived as an important sub-speaking skill by both groups.

The eight speaking skill in this section focuses on 'being able to form interrogative sentences accurately', and Table-28 shows the t-test results for the two groups.

Table-28  
Students' Attitudes to 'Being Able to Form Interrogative Sentences Accurately' (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.48 | 1.015 | 1.868    | .063                  |
| REGULAR | 117 | 3.25 | 1.121 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As far as 'forming interrogative sentences' is concerned, the t-test result indicates that the students in both groups attach similar level of importance to this aspect of language use, and that there is no significant difference between the two groups' attitude.

Figure-28 below shows the percentages for both groups' attitude to 'being able to form interrogative sentences accurately'.

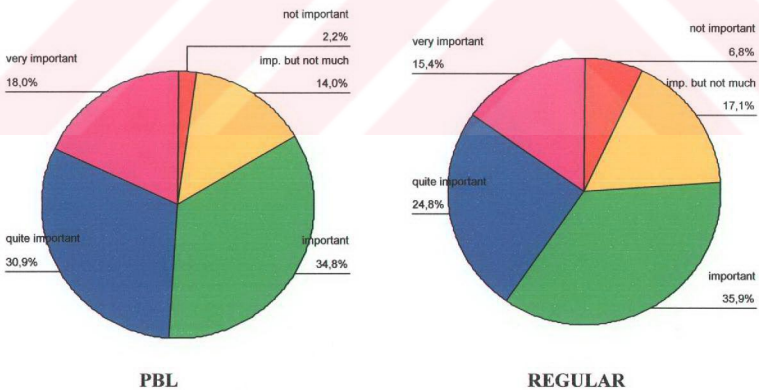


Figure-28: Percentages for 'being able to form interrogative sentences accurately'

When the percentages for this sub-skill are analyzed, it can be seen that there is a similar variation between the two groups. In the PBL groups, 18% of the students

reported that ‘forming interrogative sentences accurately’ is ‘very important’, and 30.9% of them regarded this skill as ‘quite important’, which accounts for **48.5%** as a total. In the same group, 34.8% of the students place this sub-skill at a lower level of importance. 14% of the students did not give much importance to ‘forming interrogative sentences accurately’. On the other hand, as for the Regular groups, 15.4% of the students saw this skill as ‘very important’ and 24.8% of them as ‘quite important’, making a total of **40.2%**. Besides, 35.9% of the students considered this sub-speaking skill at a lower level of importance. 17.1% of the students in the Regular groups did not give so much importance to this skill and 6.8% of them said that it is not important at all. Based on the mean scores and the percentages, it can be said that the students in the PBL groups perceive ‘forming interrogative sentences accurately’ more positively than the students in the Regular groups do.

The ninth item of this section of the questionnaire investigates the students’ attitude to ‘being able to say things in the most accurate way’, and Table-29 presents the t-test results for the two groups.

Table-29  
Students’ Attitudes to ‘Being Able to Say Things in the Most Accurate Way’ (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.63 | 1.109 | 1.982    | .048*                 |
| REGULAR | 117 | 3.36 | 1.200 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As seen in Table-29, the mean scores both fall in the fourth category, yet significantly far from each other, and the t-test result also shows that there is a significant difference between the two groups’ attitude to ‘being able to say things in the most accurate way’. Based on this result, it can be said that the students in the PBL groups seem to give more importance to ‘saying things in the most accurate way’ as part of problem-based learning sessions.

Figure-29 below shows the percentages for both groups' attitude to 'being able to say things in the most accurate way'.

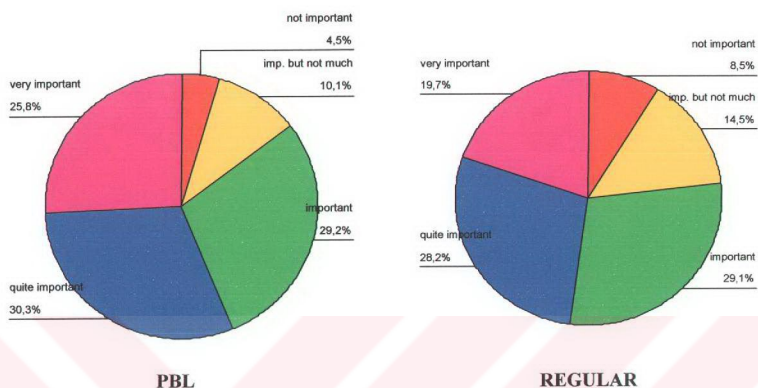


Figure-29: Percentages for 'being able to say things in the most accurate way'

As seen in Figure-29, 25.8% of the students in the PBL groups reported that 'being able to say things in the most accurate way' is 'very important', and 30.3% of them regarded this sub-skill as 'quite important', which accounts for **56.1%** as a total. Additionally, 29.2% of the students placed this skill at a lower level of importance. As for the Regular groups, 19.7% of the students reported that this skill is 'very important' and 28.2% of them said that it is 'quite important', which equals **47.9%** as a total. In this group, 29.1% of the students placed this skill at a lower level of importance. It seems that about one-third of the students in both groups placed this sub-skill in the third category on the scale. Also, **10%** of the students in the PBL groups said that this skill is 'not so much important' whereas **14.5%** of the students in the Regular groups responded at this level, indicating a slight difference between the two groups. Based on the mean scores and these percentages, it can be said that the students in the PBL groups give slightly more importance to 'being able to say things in the most accurate way' in problem-based learning sessions than the Regular groups do.

Finally, the tenth sub-speaking skill in this particular section looks at ‘being able to select the right word(s) while expressing an idea on a subject’, and Table 30 gives the t-test results for the two groups.

Table-30  
Students’ Attitudes to ‘Being Able to Select the Right Word(s)  
While Expressing an Idea on a Subject’ (t-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.93 | .906  | 1.813    | .071                  |
| REGULAR | 117 | 3.72 | 1.049 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As seen in Table-30, the mean scores for both groups fall in the fourth category on the scale and remain very close although the mean score of the PBL groups is a bit higher than that of the Regular groups, and as the t-test result shows there is no significant difference between the two groups’ attitude to the so-called skill ‘being able to select the right word(s) while expressing an idea on a subject’. This means that the students in both groups give similar importance to this speaking skill.

Figure-30 below presents the percentages for both groups’ attitude to ‘being able to select the right word(s) while expressing an idea on a subject’.

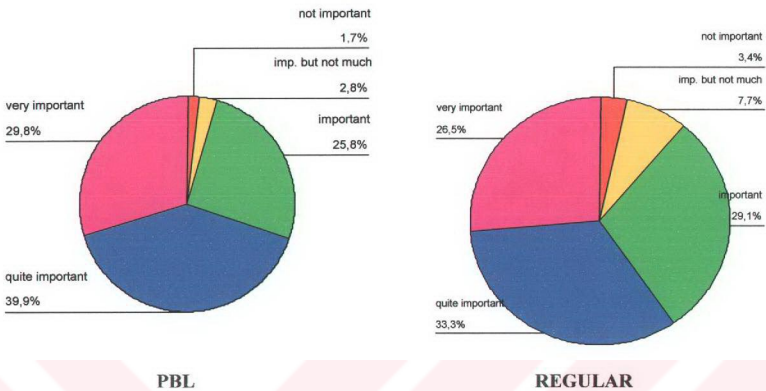


Figure-30: Percentages for ‘being able to select the right word(s) while expressing an idea on a subject’

When the percentages in Figure-30 are analyzed, it can be seen that there is a similar variation between the two groups. In the PBL groups, 29.8% of the students reported that ‘being able to select the right word(s) while expressing an idea on a subject ’ is ‘very important’, and 39.9% of the them regarded this sub-skill as ‘quite important’, which forms **69.7%** as a total. On the other hand, as for the Regular group, 26.5% of the students saw this skill as ‘very important’ and 33.3% of them as ‘quite important’, making a total of **59.8%**. Besides, 25.8% of the students in the PBL groups placed this sub-skill at a lower level of importance whereas 29.1% of the students in the Regular groups placed this skill at a similar level. Based on the mean scores and the percentages, it can be said that the students in the PBL groups perceive ‘being able to select the right word(s) while expressing an idea on a subject’ more positively than the students in the Regular groups do.

In conclusion, the sub-speaking skills reported by the students in the PBL groups as more important in contrast to those reported by the Regular groups are:

- participating in and leading oral discussions in English with other members in problem-based learning sessions (Table-21),
- being effective in activities that require class participation in English (Table-22),
- saying things accurately without making pronunciation mistakes while using English orally (Table-24), and
- saying things in the most accurate way (Table-29)

In addition to these sub-skills listed above, three other skills that are found relatively important by the students in the PBL groups are (according to the mean scores):

- being able to say what I want to say quickly enough (M= 3.97)
- being able to select the right word(s) while expressing an idea on a subject (M=3.93), and
- being able to express myself even if I make grammar mistakes (M=3.89)

Finally, the sub-speaking skills that are found the least important by the students in the PBL groups are:

- being able to form interrogative sentences accurately (M=3.48),
- being able to make accurate sentences in line with grammar rules (M=3.37), and
- being able to make complex sentences (M=2.87)



#### 4.7 Findings and Comments on the Students' Attitudes to Specific Reading Skills

This part of the study deals with the attitudes of the students in the PBL and Regular groups to the specific sub-reading skills. The sub-skills listed in this section of the questionnaire were determined, considering the place of reading comprehension in problem-based learning sessions and the content of the pre-program courses and the reading skills emphasized at Dokuz Eylül University, The School of Foreign Languages, as well as the students' and lecturers' suggestions. The question items were simplified to enable the students to understand without any questions while replying the questionnaire, and in this sense, confusing terms were omitted or clarified. The data for this section were evaluated in terms of t-test results and percentages as in the previous parts in order to identify the sub-reading skills that the PBL groups tend to use preferably as part of their problem-based learning sessions.

The first sub-skill in this section deals with 'understanding the main points of a text', and Table-31 presents the t-test results on this first specific reading skill for the two groups.

Table-31

Students' Attitude to 'Understanding the Main Points of a Text' (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.44 | .816 | .883     | .378                  |
| REGULAR | 117 | 4.36 | .793 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-31, the PBL and Regular groups seem to have scored very high mean scores for this sub-skill, and both mean scores fall in the highest category on the 1-5 scale; however, the t-test result shows that there is no significant difference between the attitudes of the students in the two groups to this sub-reading

skill, which means that the students in both PBL and Regular groups consider that ‘understanding the main points of a text’ is highly important for them.

Figure-31 below presents the percentages for both groups’ attitude to ‘understanding the main points of a text’.

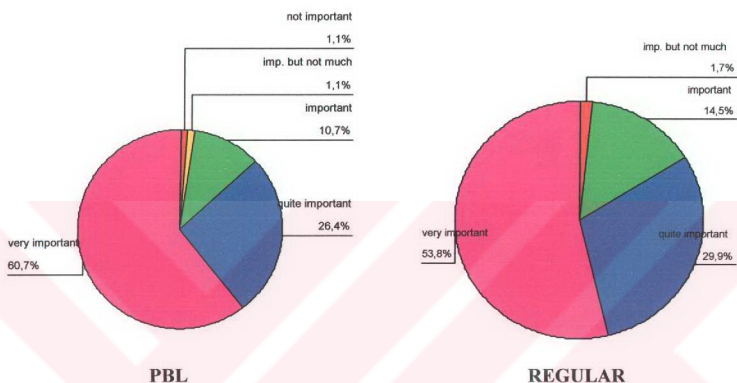


Figure-31: Percentages for both groups’ attitude to ‘understanding the main points of a text’

As can be seen in Figure-31, both PBL and Regular groups seem to have scored very highly for this sub-skill. 60.7% of the students in the PBL groups reported that ‘understanding the main points of a text’ is ‘very important’ and 26.4% of them said that it is ‘quite important’, which equals **87.1%** as a total. Only 10.7% of the students in the PBL groups placed this reading skill at a lower level of importance. On the other hand, as regards the Regular groups, 53.8% of the students regarded this skill as ‘very important’, and 29.9% of them reported that it is ‘quite important’, which accounts for **83.7%** as a total. 14.5% of the students in the Regular groups reported a lower level of importance for this skill. It can be said that the students in both groups value this reading skill at a high level.

The second sub-reading skill in this section is ‘finding the main idea of a text’, and Table-32 presents the t-test results for the two groups.

Table-32  
Students' Attitude to 'Finding the Main Idea of a Text' (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.38 | .837 | .060     | .952                  |
| REGULAR | 117 | 4.38 | .817 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-32, the PBL and Regular groups scored very high and the same mean scores for this sub-skill by coincidence, and both mean scores fall in the highest category on the 1-5 scale. There is no difference at all between the attitudes of the students in the two groups to this sub-reading skill. It can be asserted that that the students in both PBL and Regular groups equally consider that 'finding the main idea of a text' is very important for them as part of their studies.

Figure-32 below presents the percentages for both groups' attitude to 'finding the main idea of a text'.

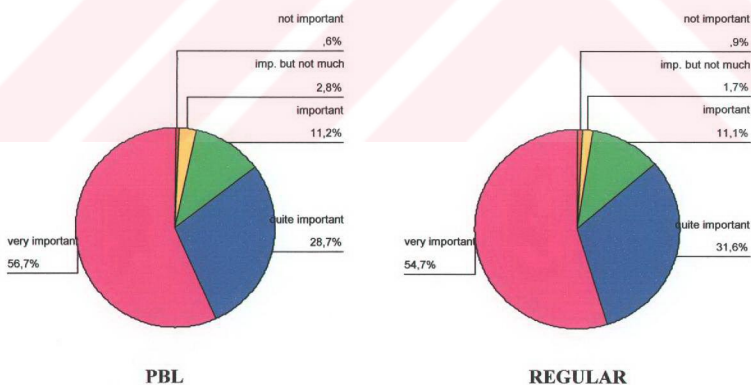


Figure-32: Percentages for both groups' attitude to 'finding the main idea of a text'

As Figure-32 shows, both groups presented a very similar distribution with their percentages. Both PBL and Regular groups scored very highly for this sub-skill.

56.7% of the students in the PBL groups reported that ‘finding the main idea of a text’ is ‘very important’ and 28.7% of them said that it is ‘quite important’, which equals **85.4%** as a total. Only 11.2% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 54.7% of the students regarded this skill as ‘very important’, and 31.6% of them reported that it is ‘quite important’, which accounts for **86.3%** as a total. 11.1% of the students in the Regular groups reported a lower level of importance for this reading skill. It can be said that the students in both groups give great importance to ‘finding the main idea of a text’ as part of their studies.

The third reading skill in this section deals with ‘scanning a text rapidly to find the information I look for’, and Table-33 gives the t-test results for the two groups.

Table-33  
Students’ Attitude to ‘Scanning a Text Rapidly to Find the Information I look for’ (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 3.92 | .886 | .924     | .356                  |
| REGULAR | 117 | 3.82 | .961 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-33, the PBL and Regular groups scored high mean scores for this sub-skill, and both mean scores fall in the fourth category (quite important) on the 1-5 scale; however, the *t*-test result shows that there is no significant difference between the attitudes of the students in the two groups to this sub-reading skill, which means that the students in both PBL and Regular groups consider that ‘scanning a text rapidly to find the information I look for’ is quite important for them in their studies.

Figure-33 below presents the percentages for both groups’ attitude to ‘scanning a text rapidly to find the information I look for’.

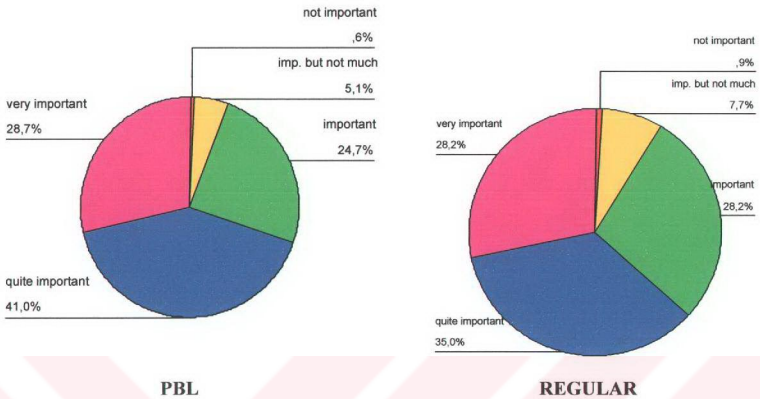


Figure-33: Percentages for both groups' attitude to 'scanning a text rapidly to find the information I look for'

As can be seen in Figure-33, both groups presented a similar distribution for this sub-skill. 28.7% of the students in the PBL groups reported that 'scanning a text rapidly to find the information I look for' is 'very important' and 41% of them said that it is 'quite important', which equals **69.7%** as a total. 24.7% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 28.2% of the students regarded this skill as 'very important', and 35% of them reported that it is 'quite important', which accounts for **63.2%** as a total. 28.2% of the students in the Regular groups reported a lower level of importance for this reading skill. Although the students reported a bit lower level of importance for this skill in comparison with the first two skills in this section, it could be said that they give importance to 'scanning a text rapidly' in their studies.

The fourth reading skill in this section focuses on 'guessing the meanings of new vocabulary within the context', and Table-34 presents the t-test results for the two groups.

Table-34  
Students' Attitude to 'Guessing the Meanings of New Vocabulary  
within the Context' (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.08 | .920 | .299     | .765                  |
| REGULAR | 117 | 4.05 | .936 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-34, the PBL and Regular groups scored very high and close mean scores for this sub-skill, and both mean scores fall in the highest category on the 1-5 scale. There is no difference at all between the attitudes of the students in the two groups to this sub-reading skill. It can be said that that the students in both PBL and Regular groups see the so-called sub-skill 'guessing the meanings of new vocabulary within the context' as very important in their studies.

Figure-34 below gives the percentages for both groups' attitude to 'guessing the meanings of new vocabulary within the context'.

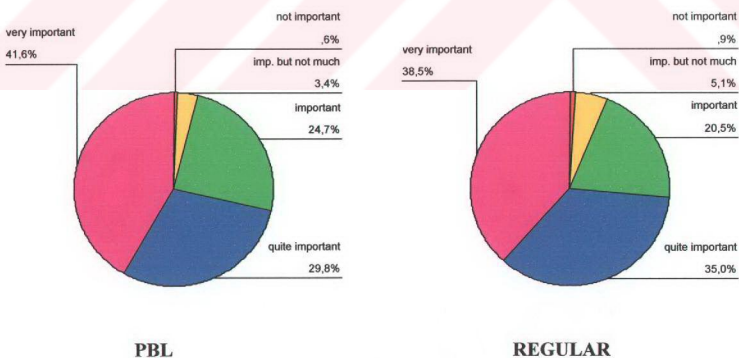


Figure-34: Percentages for both groups' attitude to 'guessing the meanings of new vocabulary within the context'

As can be seen in Figure-34, both PBL and Regular groups seem to have scored highly for this sub-skill. 41.6% of the students in the PBL groups reported that ‘guessing the meanings of new vocabulary within the context’ is ‘very important’ and 29.8% of them said that it is ‘quite important’, which equals **71.4%** as a total. 24.7% of the students in the PBL groups placed this reading skill at a lower level of importance. On the other hand, as regards the Regular groups, 38.5% of the students regarded this skill as ‘very important’, and 35% of them reported that it is ‘quite important’, which accounts for **73.5%** as a total. 20.5% of the students in the Regular groups reported a lower level of importance for this skill. It can be said that the students in both groups consider ‘guessing the meanings of new vocabulary within the context’ to be an important reading skill.

The fifth reading skill focuses on ‘understanding the general structure of a text’, and Table-35 gives the t-test results for the two groups.

Table-35

Students’ Attitude to ‘Understanding the General Structure of a Text’ (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.12 | .916 | -.179    | .858                  |
| REGULAR | 117 | 4.14 | .819 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-35, the PBL and Regular groups scored very high and close mean scores for this sub-skill, and both mean scores fall in the highest category on the 1-5 scale. There is no difference at all between the attitudes of the students in the two groups to this reading skill. It can be said that that the students in both PBL and Regular groups see ‘understanding the general structure of a text’ equally and highly important.

Figure-35 below gives the percentages for both groups’ attitude to ‘understanding the general structure of a text’.

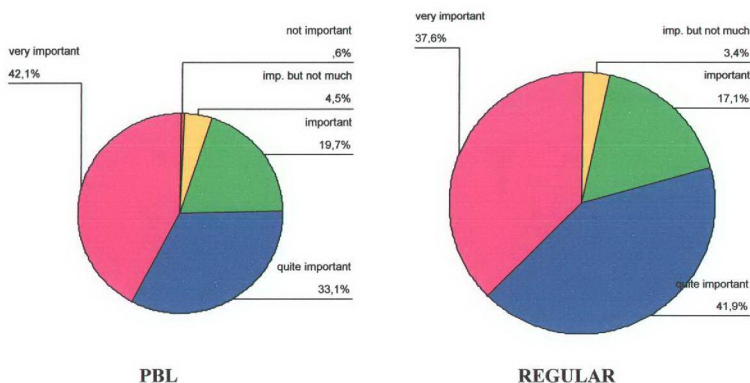


Figure-35: Percentages for both groups' attitude to 'understanding the general structure of a text'

As Figure-35 shows, both groups presented a very similar distribution in percentages. Both PBL and Regular groups scored very highly for this sub-skill. 42.1% of the students in the PBL groups reported that 'understanding the general structure of a text' is 'very important' and 33.1% of them said that it is 'quite important', which equals **75.2%** as a total. 19.7% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 37.6% of the students regarded this skill as 'very important', and 41.9% of them reported that it is 'quite important', which forms **79.5%** of the total. 17.1% of the students in the Regular groups reported a lower level of importance for this reading skill. It can be said that the students in both groups see 'understanding the general structure of a text' as an important skill in their studies.

The sixth reading skill focuses on students' attitudes to 'using a dictionary effectively to find meanings of only key vocabulary', and Table-36 shows the t-test results for the two groups.



Table-36  
Students' Attitude to 'Using a Dictionary Effectively to Find Meanings of Only Key Vocabulary' (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 3.80 | .945 | -.075    | .940                  |
| REGULAR | 117 | 3.81 | .991 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-36, the PBL and Regular groups scored very close mean scores for this sub-skill, and both mean scores fall in the fourth category (quite important) on the 1-5 scale. Besides, the *t*-test result shows that there is no difference at all between the attitudes of the students in the two groups to this sub-reading skill. The students in both PBL and Regular groups equally tend to place 'using a dictionary effectively to find meanings of only key vocabulary' at a similar level of importance.

Figure-36 below gives the percentages for both groups' attitude to 'using a dictionary effectively to find meanings of only key vocabulary'.

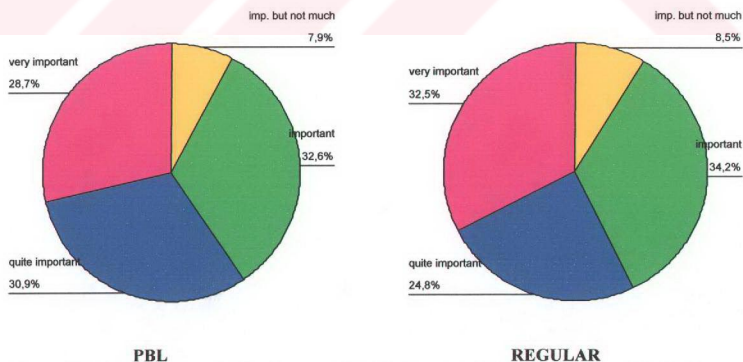


Figure-36: Percentages for both groups' attitude to 'using a dictionary effectively to find meanings of only key vocabulary'

As Figure-36 shows, both groups presented a quite similar distribution for this sub-skill. 28.7% of the students in the PBL groups reported that ‘using a dictionary effectively to find meanings of only key vocabulary’ is ‘very important’ and 30.9% of them said that it is ‘quite important’, which equals **59.6%** as a total. 32.6% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. Only 8% of the students in both groups seem to ignore this skill. On the other hand, as for the Regular groups, 32.5% of the students regarded this skill as ‘very important’, and 24.8% of them reported that it is ‘quite important’, which is equal to **57.3%** as a total. 34.2% of the students in the Regular groups reported a lower level of importance for this reading skill. It is striking that no-one said ‘not important’ for this reading skill. It can be concluded that the students in both groups consider that ‘using a dictionary effectively to find meanings of only key vocabulary’ is less important than the other reading skills.

The seventh reading skill in this section deals with ‘improving vocabulary by learning new words in a text’, and Table-37 presents the t-test results.

Table-37  
Students’ Attitude to ‘Improving my Vocabulary by Learning  
New Words While Reading a Text’ (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of<br>Significance |
|---------|-----|------|-------|----------|--------------------------|
| PBL     | 178 | 3.87 | .988  | .016     | .987                     |
| REGULAR | 117 | 3.86 | 1.041 |          |                          |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-37, the PBL and Regular groups scored quite high and equal mean scores for this sub-skill, and both mean scores fall in the fourth category (quite important) on the 1-5 scale. Besides, the t-test result shows that there is no difference at all between the attitudes of the students in the two groups to this sub-reading skill. The students in both PBL and Regular groups equally think that ‘improving my vocabulary by learning new words in a text’ is important for them.

Figure-37 below gives the percentages for both groups' attitude to 'improving my vocabulary by learning new words in a text'.

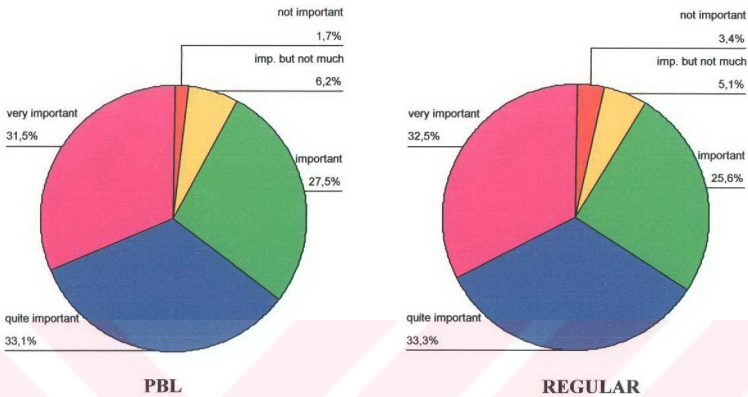


Figure-37: Percentages for both groups' attitude to 'improving vocabulary by learning new words in a text'

As can be seen in Figure-37, both groups presented a similar distribution for this sub-skill. 31.5% of the students in the PBL groups reported that 'improving my vocabulary by learning new words in a text' is 'very important' and 33.1% of them said that it is 'quite important', which accounts for **64.6%** as a total. 27.5% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 32.5% of the students regarded this skill as 'very important', and 33.3% of them reported that it is 'quite important', which equals **65.8%** as a total. 25.6% of the students in the Regular groups reported a lower level of importance for this reading skill. The percentages indicate that the students in both groups find the so-called skill 'improving vocabulary by learning new words in a text' equally important for them in their studies.

The eight reading skill in this section focuses on students' attitude to 'making inferences from a text', and Table-38 presents the t-test results.

Table-38  
Students' Attitude to 'Making Inferences from a Text' (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.19 | .840 | 1.197    | .232                  |
| REGULAR | 117 | 4.06 | .940 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-38, the PBL and Regular groups scored very high and close mean scores for this sub-skill, and both mean scores fall in the highest category on the 1-5 scale. However, as the *t*-test result indicates, there is no significant difference at all between the attitudes of the students in the two groups to this sub-reading skill. It can be said that that the students in both PBL and Regular groups see 'making inferences from a text' as an important reading skill in their studies.

Figure-38 below gives the percentages for both groups' attitude to 'making inferences from a text'.

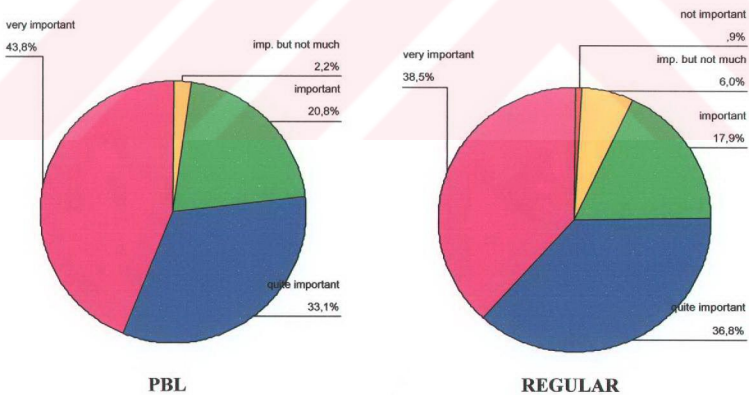


Figure-38: Percentages for both groups' attitude to 'making inferences from a text'

As Figure-38 shows, both groups presented a very similar distribution in percentages. Both PBL and Regular groups scored very highly for this sub-skill. 43.8% of the

students in the PBL groups reported that ‘making inferences from a text’ is ‘very important’, and 33.1% of them said that it is ‘quite important’, which forms **76.9%** as a total. 20.8% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 38.5% of the students saw this skill as ‘very important’, and 36.8% of them reported that it is ‘quite important’, which makes **75.3%** of the total. 17.9% of the students in the Regular groups reported a lower level of importance for this reading skill. It can be said that the students in both groups see ‘making inferences from a text’ as an important reading skill in their studies.

The ninth item of this section of the questionnaire investigates the students’ attitude to ‘being able to express ideas both orally and written based on what I read’, and Table-39 presents the t-test results.

Table-39  
Students’ Attitude to ‘Being Able to Express Ideas Both Orally and Written Based on What I Read’ (*t-test*)

| GROUPS  | N   | M    | Sd   | <i>t</i> | Level of Significance |
|---------|-----|------|------|----------|-----------------------|
| PBL     | 178 | 4.11 | .869 | -.890    | .374                  |
| REGULAR | 117 | 4.21 | .886 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-39, the PBL and Regular groups seem to have scored very high mean scores for this sub-skill, and both mean scores fall in the highest category on the 1-5 scale; however, as the t-test result indicates, there is no significant difference between the attitudes of the students in the two groups to this sub-reading skill, and based on this result, it can be said that the students in both PBL and Regular groups see ‘being able to express ideas both orally and written based on what I read’ highly important in their studies.

Figure-39 below gives the percentages for both groups' attitude to 'being able to express ideas both orally and written based on what I read'.

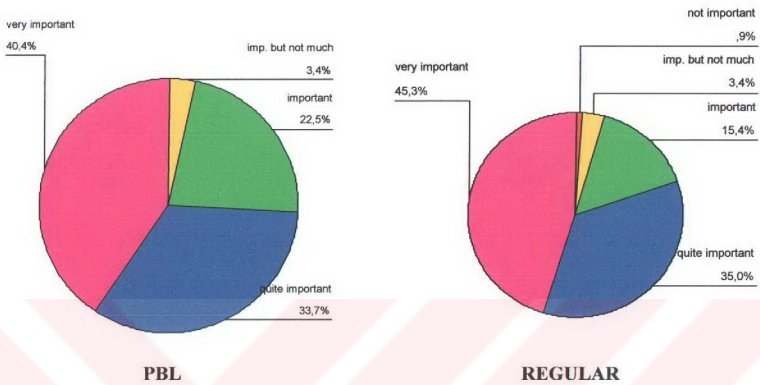


Figure-39: Percentages for both groups' attitude to 'being able to express ideas both orally and written based on what I read'

As Figure-39 shows, both groups presented a very similar distribution, yet with slight differences in percentages. Both PBL and Regular groups scored very highly for this sub-skill. As for the PBL groups, 40.4% of the students reported that 'being able to express ideas both orally and written based on what I read' is 'very important' and 33.7% of them said that it is 'quite important', which equals **74.1%** as a total. 22.5% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 45.3% of the students think of this skill as 'very important', and 35% of them reported that it is 'quite important', which forms **80.3%** of the total. 15.4% of the students in the Regular groups reported a lower level of importance for this reading skill. It can be said that the students in both groups see 'being able to express ideas both orally and written based on what I read' as an important skill in their studies.

Finally, the tenth reading skill in this particular section deals with students' attitude to 'identifying different views in a text', and Table-40 gives the t-test results for the two groups.

Table-40  
Students' Attitude to 'Identifying Different Views in a Text' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.89 | 1.028 | .391     | .696                  |
| REGULAR | 117 | 3.85 | .988  |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-40, the PBL and Regular groups scored quite high mean scores for this sub-skill, and both mean scores fall in the fourth category (quite important) on the 1-5 scale; however, there is no difference at all between the attitudes of the students in the two groups to this sub-reading skill. The students in both PBL and Regular groups see 'identifying different views in a text' equally quite important.

Figure-40 below gives the percentages for both groups' attitude to 'identifying different views in a text'.

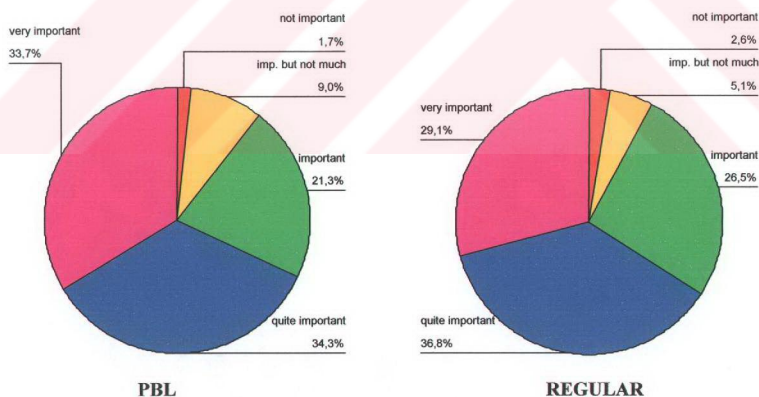


Figure-40: Percentages for both groups' attitude to 'identifying different views in a text'

As Figure-40 shows, both groups presented a similar distribution for this sub-skill. 33.7% of the students in the PBL groups reported that 'identifying different views in

a text' is 'very important' and 34.3% of them said that it is 'quite important', which equals **68%** as a total. 21.3% of the students in the PBL groups placed this sub-reading skill at a lower level of importance. On the other hand, as for the Regular groups, 29.1% of the students regarded this skill as 'very important', and 36.8% of them reported that it is 'quite important', which accounts for **65.9%** as a total. 26.5% of the students in the Regular groups reported a lower level of importance for this reading skill. The percentages indicate that the students in both groups give a similar level of importance to 'identifying different views in a text' in their studies.

As a conclusion, based on the mean scores, the t-test results and percentages for the attitudes of the students in the PBL and Regular groups towards specific reading skills, it can be asserted that the students in both groups have a quite close perspective as far as the reading skills are concerned and the students perceive the reading skills at similar levels of importance, yet consider some of them more valuable as part of their studies. It seems that this is true for both groups.

The following list presents the reading skills which the students in the PBL groups find important with respect to the mean scores and the percentages for 'very important' and 'quite important' categories on the scale from the highest to the lowest:

- understanding the main points of a text (M=4.44 / 87.1%)
- finding the main idea of a text (M=4.38 / 85.4%)
- making inferences from a text (M= 4.19 / 76.9%)
- understanding the general structure of a text (M= 4.12 / 75.2%)
- being able to express ideas both orally and written based on what I read (M= 4.11 / 74.1%)
- guessing the meanings of new vocabulary within the context (M= 4.08 / 71.4%)
- scanning a text rapidly to find the information I look for (M=3.92 / 69.7%)
- identifying different views in a text (M= 3.89 / 68%)
- improving vocabulary by learning new words in a text (M= 3.87 / 64.6%)
- using a dictionary effectively to find meanings of only key vocabulary (M= 3.80 / 59.6%)



#### 4.8 Findings and Comments on the Students' Attitudes to Specific Writing Skills

This part of the study deals with the attitudes of the students in the PBL and Regular groups to the specific sub-writing skills. The sub-skills listed in this section of the questionnaire were determined, taking into consideration the place of writing skill within the content of the prep-program and the sub-skills emphasized at Dokuz Eylül University, The School of Foreign Languages, as well as the students' and lecturers' suggestions.

The data for this section were evaluated in terms of t-test results and percentages in order to identify the sub-writing skills that the PBL groups tend to use preferably as part of the problem-based learning sessions with respect to their levels of importance.

Table-41 presents the t-test results on the students' attitude in both PBL and Regular groups to 'using the right / correct vocabulary'.

Table-41  
Students' Attitude to the Importance of  
'Using the right / correct vocabulary' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.59 | 1.087 | -1.016   | .311                  |
| REGULAR | 117 | 3.72 | 1.016 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-41, although the Regular groups scored a bit higher mean score than the PBL groups, the t-test result shows that there is no significant difference at all between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups tend to place 'using the right / correct vocabulary' at a similar level of importance on the scale.

Figure-41 presents the percentages of the level of importance for ‘using the right / correct vocabulary’ for both groups.

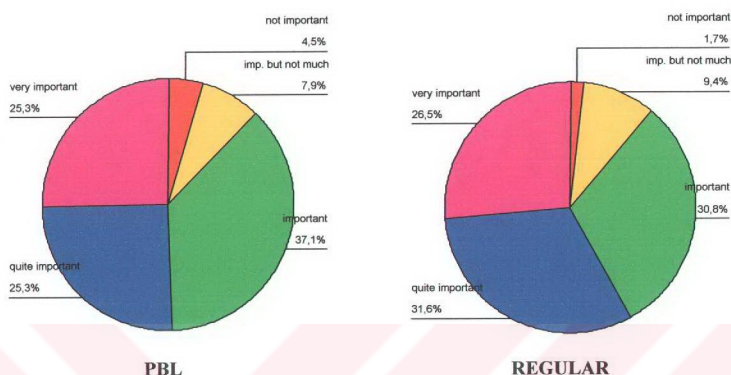


Figure-41: Percentages for ‘using the right / correct vocabulary’

As can be seen in Figure-41, both PBL and Regular groups seem to have scored almost similarly for each category on the scale for this sub-skill. 25.3% of the students in the PBL groups reported that ‘using the right / correct vocabulary’ is ‘very important’ and 25.3% of them said that it is ‘quite important’, which equals **50.3%** as a total. **37.1%** of the students in the PBL groups placed this writing skill at a lower level of importance. On the other hand, as regards the Regular groups, 26.5% of the students regarded this skill as ‘very important’, and 31.6% of them reported that it is ‘quite important’, which accounts for **58.1%** as a total. **30.8%** of the students in the Regular groups reported a lower level of importance for this skill. It can be said that the students in both groups consider ‘using the right / correct vocabulary’ to be important.

Table-42 presents the t-test results on the students’ attitude in both groups to ‘writing a well-organized paragraph’.

Table-42  
Students' Attitude to the Importance of  
'Writing a well-organized paragraph' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.33 | 1.098 | -1.393   | .165                  |
| REGULAR | 117 | 3.51 | 1.088 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-42, despite the fact that the Regular groups scored a higher mean score than the PBL groups, the *t*-test result shows that there is no significant difference at all between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups tend to place 'writing a well-organized paragraph' at a similar level of importance on the scale.

Figure-42 shows the percentages of the level of importance for 'writing a well-organized paragraph' for both groups.

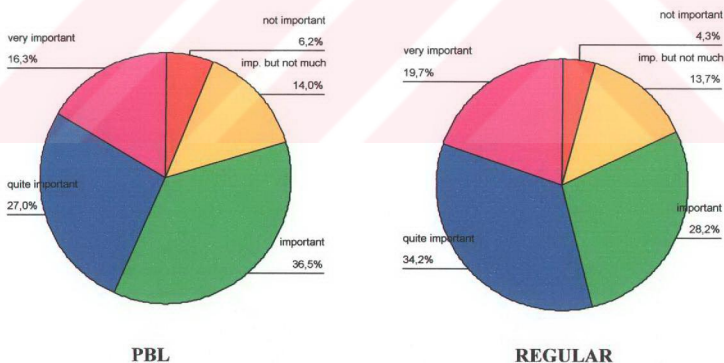


Figure-42: Percentages for 'writing a well-organized paragraph'

As can be seen in Figure-42, both PBL and Regular groups seem to have scored in a similar fashion for the first category on the scale for this sub-skill. 16.3% of the students in the PBL groups reported that 'writing a well-organized paragraph' is

‘very important’ and 27% of them said that it is ‘quite important’, which equals **43.3%** as a total. **36.5%** of the students in the PBL groups placed ‘writing a well-organized paragraph’ at a lower level of importance. In addition, **14%** of the students in this group reported that this writing skill is ‘not so much important’. On the other hand, as regards the Regular groups, 19.7% of the students regarded this skill as ‘very important’, and 34.2% of them reported that it is ‘quite important’, which accounts for **53.9%** as a total. **28.2%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **13.7%** of the students in this group reported that this writing skill is ‘not so much important’. Based on these percentages, it can be said that the students in both groups see ‘writing a well-organized paragraph’ as an important part of the writing skill.

Table-43 presents the t-test results on the students’ attitude in both groups to ‘writing an academic assignment in an order’.

Table-43  
Students’ Attitude to the Importance of  
‘Writing a well-organized academic assignment’ (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.63 | 1.077 | -.947    | .344                  |
| REGULAR | 117 | 3.75 | .982  |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As seen in Table-43, the Regular groups scored a little higher mean score than the PBL groups, and the t-test result shows that there is no significant difference at all between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups tend to place ‘writing a well-organized academic assignment’ at a similar level of importance.

Figure-43 gives the percentages of the level of importance for ‘writing a well-organized academic assignment’ for both groups.

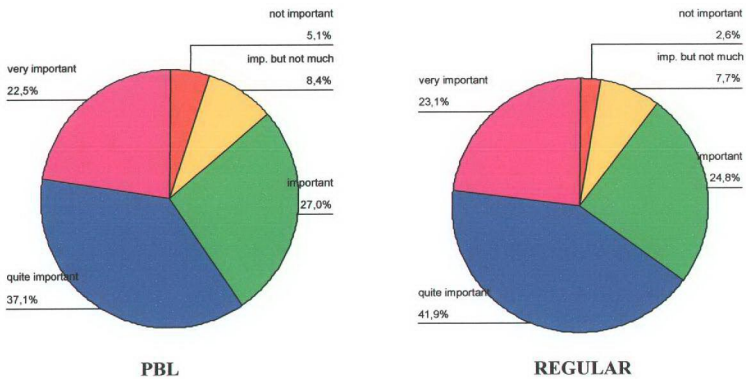


Figure-43: Percentages for 'writing a well-organized academic assignment'

As can be seen in Figure-43, both PBL and Regular groups seem to have scored very closely for each category on the scale for this sub-skill. 22.5% of the students in the PBL groups reported that 'writing a well-organized academic assignment' is 'very important' and 37.1% of them said that it is 'quite important', which equals **59.6%** as a total. **27%** of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, **8.4%** of the students in this group reported that this writing skill is 'not so much important'. On the other hand, as regards the Regular groups, 23.1% of the students regarded this skill as 'very important', and 41.9% of them reported that it is 'quite important', which accounts for **65.9%** as a total. **24.8%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **7.7%** of the students in this group reported that this writing skill is not so much important. Based on these percentages, it can be said that the students in both groups tend to see 'writing a well-organized academic assignment' as an important writing skill.

Table-44 presents the t-test results on the students' attitude in both groups to 'writing my ideas clearly'.

Table-44  
Students' Attitude to the Importance of  
'Expressing my ideas clearly in writing' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.76 | 1.070 | -1.311   | .191                  |
| REGULAR | 117 | 3.91 | .952  |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-44, in spite of the fact that the Regular groups scored a higher mean score than the PBL groups, the *t*-test result shows that there is no significant difference at all between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups tend to place 'expressing my ideas clearly in writing' at a similar level of importance.

Figure-44 gives the percentages of the level of importance for 'expressing my ideas clearly in writing' for both groups.

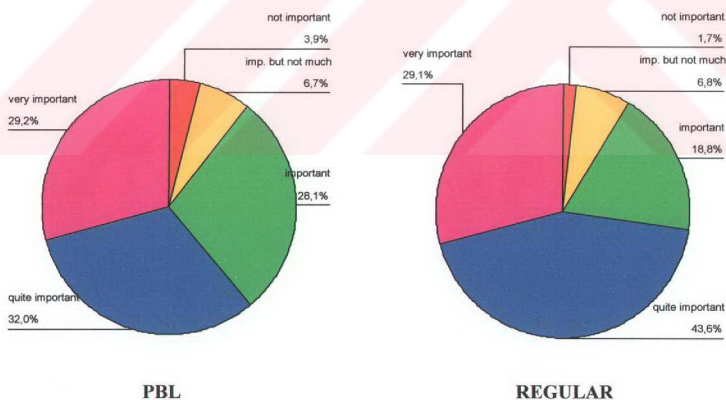


Figure-44: Percentages for 'expressing my ideas clearly in writing'

As can be seen in Figure-44, both PBL and Regular groups seem to have scored similarly for the first category on the scale for this sub-skill. 29.2% of the students in the PBL groups reported that 'expressing my ideas clearly in writing' is 'very

important' and 32% of them said that it is 'quite important', which equals **61.2%** as a total. **28.1%** of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, **6.7%** of the students in this group reported that this skill is 'not so much important'. On the other hand, as for the Regular groups, 29.1% of the students regarded 'writing my ideas clearly' as 'very important', and 43.6% of them reported that it is 'quite important', which accounts for **72.7%** as a total. **18.8%** of the students in the Regular groups reported a lower level of importance for this sub-skill. Besides, **6.8%** of the students in this group reported that 'expressing my ideas clearly in writing' is 'not so much important'. Based on these percentages, it can be said that the students in both groups tend to consider that 'expressing my ideas clearly in writing' is important.

Table-45 presents the t-test results on the students' attitude in both groups to 'using conjunctions correctly and in the right place'.

Table-45  
Students' Attitude to the Importance of  
'Using conjunctions correctly and in the right place' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.44 | 1.155 | -1.091   | .276                  |
| REGULAR | 117 | 3.59 | 1.076 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-45, the Regular groups scored a little higher mean score than the PBL groups, and the t-test result shows that there is no significant difference at all between the attitudes of the students in the two groups to the use of conjunctions in writing. The students in both PBL and Regular groups consider 'using conjunctions correctly and in the right place' at a similar level of importance.

Figure-45 below shows the percentages of the level of importance for 'using conjunctions correctly and in the right place'.

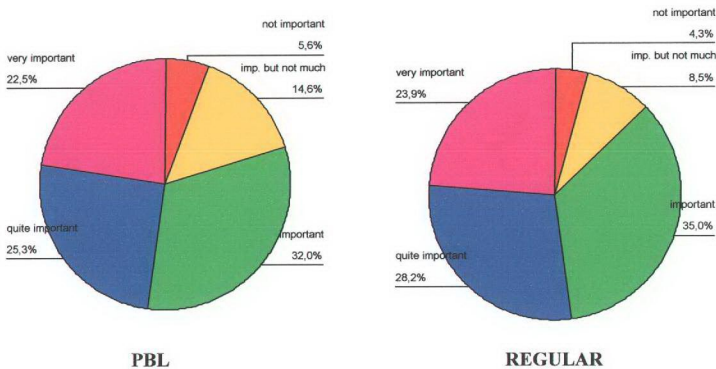


Figure-45: Percentages for ‘using conjunctions correctly and in the right place’

As can be seen in Figure-45, both PBL and Regular groups seem to have scored very closely for each category on the scale for this sub-skill. 22.5% of the students in the PBL groups reported that ‘using conjunctions correctly and in the right place’ is ‘very important’ and 25.3% of them said that it is ‘quite important’, which equals **47.8%** as a total. **32%** of the students in the PBL groups placed the use of conjunctions in writing at a lower level of importance. In addition, **14.6%** of the students in this group reported that ‘using conjunctions correctly and in the right place’ is ‘not so much important’. On the other hand, as regards the Regular groups, 23.9% of the students regarded this skill as ‘very important’, and 28.2% of them reported that it is ‘quite important’, which accounts for **52.1%** as a total. **35%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **8.5%** of the students in this group reported that this writing skill is ‘not so much important’. Based on these percentages, it can be said that the students in both groups tend to attach almost similar level of importance to ‘using conjunctions correctly and in the right place’.

Table-46 presents the t-test results on the students’ attitude in both groups to ‘correct word order’.



Table-46  
Students' Attitude to the Importance of 'Correct word order' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.58 | 1.093 | -.491    | .624                  |
| REGULAR | 117 | 3.64 | 1.029 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-46, the PBL and the Regular groups scored very close mean scores for this sub-skill, and as the *t*-test result shows, there is no significant difference at all between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups consider 'correct word order' at a similar level of importance.

Figure-46 presents the percentages of the level of importance for 'correct word order' for both groups.

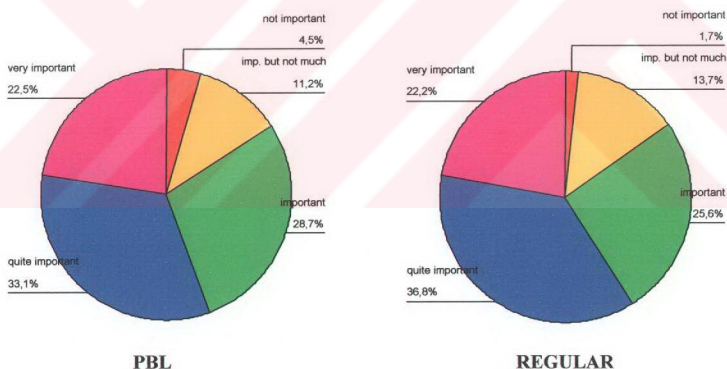


Figure-46: Percentages for 'correct word order'

As can be seen in Figure-46, both PBL and Regular groups seem to have scored very closely and similarly for each category on the scale for this sub-skill. 22.5% of the students in the PBL groups reported that 'correct word order' is 'very important' and 33.1% of them said that it is 'quite important', which equals 55.6% as a total.

28.7% of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, 11.2% of the students in this group reported that ‘correct word order’ is ‘not so much important’. On the other hand, as for the Regular groups, 22.2% of the students regarded this skill as ‘very important’, and 36.8% of them reported that it is ‘quite important’, which accounts for 59% as a total. 25.6% of the students in the Regular groups reported a lower level of importance for this skill. Besides, 13.7% of the students in this group reported that this writing skill is ‘not so much important’. Based on these percentages, it can be said that the students in both groups tend to see ‘correct word order’ as an important part of the writing skill.

Table-47 presents the t-test results on the students’ attitude in both groups to ‘writing a summary of what I’ve read’.

Table-47  
Students’ Attitude to the Importance of  
‘Writing a summary of what I’ve read’ (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.54 | 1.115 | -1.389   | .166                  |
| REGULAR | 117 | 3.72 | 1.024 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-47, although the Regular groups scored a higher mean score than the PBL groups, the *t*-test result shows that there is no difference between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups tend to place ‘writing a summary of what I’ve read’ at a similar level of importance on the scale.

Figure-47 shows the percentages of the level of importance for ‘writing a summary of what I’ve read’ for both groups.

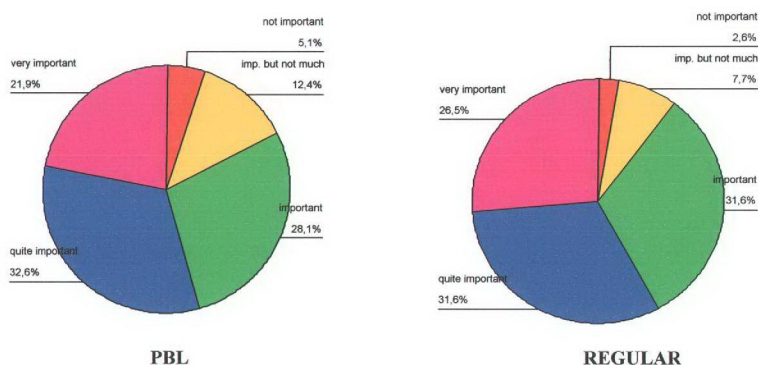


Figure-47: Percentages for 'writing a summary of what I've read'

As can be seen in Figure-47, both PBL and Regular groups seem to have scored very closely and similarly for each category on the scale for this sub-skill. 21.9% of the students in the PBL groups reported that 'writing a summary of what I've read' is 'very important' and 32.6% of them said that it is 'quite important', which equals **54.5%** as a total. **28.1%** of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, **12.4%** of the students in this group reported that 'writing a summary of what I've read' is 'not so much important'. On the other hand, as regards the Regular groups, 26.5% of the students regarded this skill as 'very important', and 31.5% of them reported that it is 'quite important', which accounts for **58%** as a total. **31.6%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **7.7%** of the students in this group reported that this writing skill is 'not so much important'. Based on these percentages, it can be said that the students in both groups tend to consider that 'writing a summary of what I've read' is an important part of the writing skill.

Table-48 presents the t-test results on the students' attitude in both groups to 'writing a paragraph in an order'.

Table-48  
Students' Attitude to the Importance to  
'Writing an argumentative type of essay' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.37 | 1.154 | -1.036   | .301                  |
| REGULAR | 117 | 3.51 | 1.149 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-48, despite the fact that the Regular groups scored a higher mean score than the PBL groups, the *t*-test result shows that there is no significant difference at all between the attitudes of the students in the two groups to this type of essay writing. The students in both PBL and Regular groups consider 'writing an argumentative type of essay' at a similar level of importance on the scale.

Figure-48 gives the percentages of the level of importance for 'writing an argumentative type of essay' for both groups.

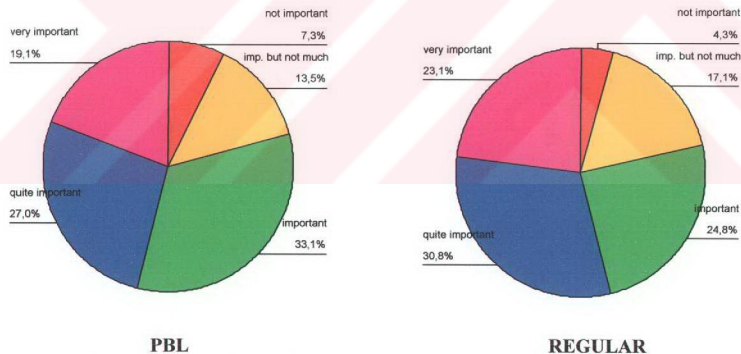


Figure-48: Percentages for 'writing an argumentative type of essay'

As can be seen in Figure-48, both PBL and Regular groups seem to have scored in a similar fashion for this sub-skill. 19.1% of the students in the PBL groups reported that 'writing an argumentative type of essay' is 'very important' and 27% of them said that it is 'quite important', which equals **46.1%** as a total. 33.1% of the

students in the PBL groups placed this writing skill at a lower level of importance. In addition, **13.5%** of the students in this group reported that this writing skill is ‘not so much important’. On the other hand, as regards the Regular groups, 23.1% of the students regarded this skill as ‘very important’, and 30.8% of them reported that it is ‘quite important’, which accounts for **53.9%** as a total. **24.8%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **17%** of the students in this group reported that this writing skill is ‘not so much important’. Based on these percentages, it can be said that the students in both groups tend to attach a similar level of importance to ‘writing an argumentative type of essay’.

Table-49 presents the t-test results on the students’ attitude in both groups to ‘writing a cause-effect type of essay’.

Table-49  
Students’ Attitude to the Importance of  
‘Writing a cause-effect type of essay’ (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.47 | 1.165 | -1.283   | .200                  |
| REGULAR | 117 | 3.64 | 1.013 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-49, the Regular groups scored a higher mean score than the PBL groups; however, the t-test result shows that there is not any significant difference between the attitudes of the students in the two groups to this type of essay writing. The students in both PBL and Regular groups tend to consider ‘writing a cause and effect type of essay’ at a similar level of importance.

Figure-49 shows the percentages of the level of importance for ‘writing a cause and effect type of essay’ for both groups.

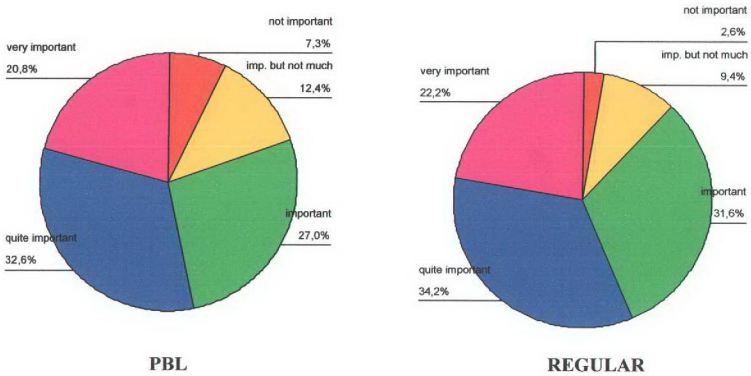


Figure-49: Percentages for 'writing a cause-effect type of essay'

As can be seen in Figure-49, both PBL and Regular groups seem to have scored very closely and similarly for each category on the scale for this sub-skill. 20.8% of the students in the PBL groups reported that 'writing a cause-effect type of essay' is 'very important' and 32.6% of them said that it is 'quite important', which equals **53.4%** as a total. 27% of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, 12.4% of the students in this group reported that 'writing a cause-effect type of essay' is 'not so much important'. On the other hand, as regards the Regular groups, 22.2% of the students regarded this skill as 'very important', and 34.2% of them reported that it is 'quite important', which accounts for **56.4%** as a total. 31.6% of the students in the Regular groups reported a lower level of importance for this skill. Besides, 9.4% of the students in this group reported that this writing skill is 'not so much important'. Based on these percentages, it can be said that the students in both groups consider that 'writing a cause-effect type of essay' is an important part of their writing skill.

Table-50 presents the t-test results on the students' attitude in both groups to 'writing about the steps of a process'.

Table-50  
Students' Attitude to the Importance of  
'Writing about the steps of a process' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.47 | 1.156 | -.873    | .383                  |
| REGULAR | 117 | 3.59 | 1.100 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-50, the PBL and the Regular groups scored very close mean scores for this sub-skill, and as the *t*-test result shows, there is no significant difference at all between the attitudes of the students in the two groups to this kind of essay writing. The students in both PBL and Regular groups consider 'writing about the steps of a process' at a similar level of importance.

Figure-50 presents the percentages of the level of importance for 'writing about the steps of a process' for both groups.

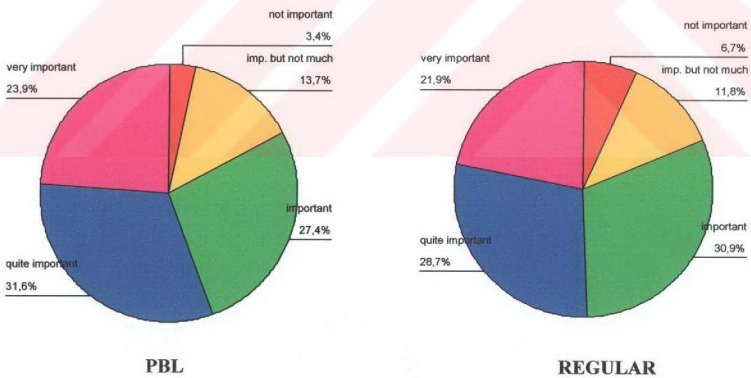


Figure-50: Percentages for 'writing about the steps of a process'

As can be seen in Figure-50, both PBL and Regular groups seem to have scored similarly for each category on the scale for this sub-skill. 23.9% of the students in the PBL groups reported that 'writing about the steps of a process' is 'very

important' and 31.6% of them said that it is 'quite important', which equals **55.5%** as a total. **27.4%** of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, **13.7%** of the students in this group reported that 'writing about the steps of a process' is 'not so much important'. On the other hand, as for the Regular groups, 21.9% of the students regarded this skill as 'very important', and 28.7% of them reported that it is 'quite important', which accounts for **50.6%** as a total. **30.9%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **11.8%** of the students in this group reported that this writing skill is 'not so much important'. Based on these percentages, it can be said that the students in both groups tend to consider that 'writing about the steps of a process' is an important part of the writing skill.

Table-51 presents the t-test results on the students' attitude in both groups to 'writing an informative type of essay'.

Table-51  
Students' Attitude to the Importance of  
'Writing an informative type of essay' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.74 | 1.120 | -1.538   | .125                  |
| REGULAR | 117 | 3.94 | 1.028 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value p>0.05

As can be seen in Table-51, in spite of the fact that the Regular groups scored a higher mean score than the PBL groups, the t-test result shows that there is not any significant difference between the attitudes of the students in the two groups to this type of essay writing. The students in both PBL and Regular groups seem to consider 'writing an informative type of essay' at a similar level of importance.



Figure-51 shows the percentages for ‘writing an informative type of essay’ for both groups.

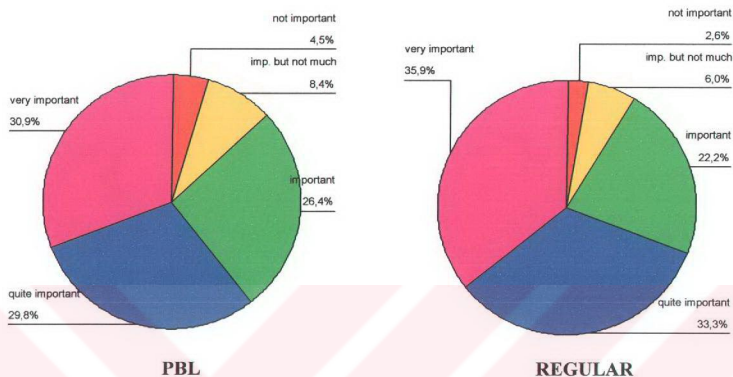


Figure-51: Percentages for ‘writing an informative type of essay’

As seen in Figure-51, both PBL and Regular groups seem to have scored similarly for each category on the scale for this sub-skill. 30.9% of the students in the PBL groups reported that ‘writing an informative type of essay’ is ‘very important’ and 29.8% of them said that it is ‘quite important’, which equals **60.7%** as a total. **26.4%** of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, **8.4%** of the students in this group reported that ‘writing an informative type of essay’ is ‘not so much important’. On the other hand, as for the Regular groups, 36.9% of the students regarded this skill as ‘very important’, and 33.3% of them reported that it is ‘quite important’, which accounts for **70.2%** as a total. **22.2%** of the students in the Regular groups reported a lower level of importance for this skill. Besides, **6%** of the students in this group reported that this writing skill is ‘not so much important’. Based on these percentages, it can be said that the students in both groups tend to see ‘writing an informative type of essay’ as an important part of the writing skill.

Table-52 presents the t-test results on the students' attitude in both groups to 'writing an article about a research project and its results'.

Table-52  
Students' Attitude to the Importance of  
'Writing an article about a research project and its results' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.54 | 1.213 | -.849    | .396                  |
| REGULAR | 117 | 3.66 | 1.115 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-52, the PBL and the Regular groups scored close mean scores for this sub-skill, and as the t-test result indicates, there is no significant difference between the attitudes of the students in the two groups to this writing skill. The students in both PBL and Regular groups consider 'writing an article about a research project and its results' at a similar level of importance.

Figure-52 presents the percentages of the level of importance for 'writing an article about a research project and its results' for both groups.

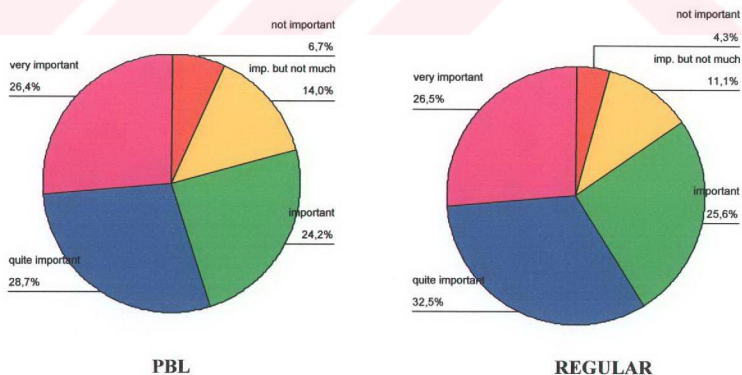


Figure-52: Percentages for 'writing an article about a research project and its results'

As can be seen in Figure-52, both PBL and Regular groups seem to have scored very closely and similarly for each category on the scale for this sub-skill. 26.4% of the students in the PBL groups reported that 'writing an article about a research project and its results' is 'very important' and 28.7% of them said that it is 'quite important', which equals 55.1% as a total. 24.2% of the students in the PBL groups placed this writing skill at a lower level of importance. In addition, 14% of the students in this group reported that 'writing an article about a research project and its results' is 'not so much important'. On the other hand, as regards the Regular groups, 26.5% of the students regarded this skill as 'very important', and 32.5% of them reported that it is 'quite important', which accounts for 59% as a total. 25.6% of the students in the Regular groups reported a lower level of importance for this skill. Besides, 11% of the students in this group reported that this writing skill is 'not so much important'. Based on these percentages, it can be said that the students in both groups tend to consider that 'writing an article about a research project and its results' is an important part of the writing skill.

The last two skills did not have any connection with the content of problem-based learning, but was a reflection of the writing course in the prep-program, so the results reflect the students' view of the two skills.

Table-53 presents the t-test results on the students' attitude in both groups to 'writing a letter of application'.

Table-53  
Students' Attitude to the Importance of  
'Writing a letter of application' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.06 | 1.095 | -.710    | .478                  |
| REGULAR | 117 | 4.15 | 1.080 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-53, the students in both groups scored very highly for 'writing a letter of application'; however, the t-test result shows that there is no significant difference between the attitudes of the students in the two groups to 'writing a letter of application'. The fact that the students in both groups scored so high for 'being able to write a letter of application' indicates that they give much greater importance to it.

Figure-53 shows the percentages of the level of importance for 'writing a letter of application' for both groups.

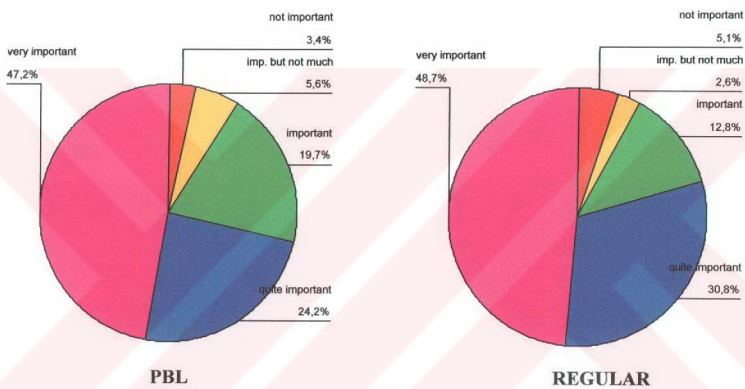


Figure-53: Percentages for 'writing a letter of application'

As can be seen in Figure-44, both PBL and Regular groups seem to have scored similarly for each category on the scale for this sub-skill. 47.2% of the students in the PBL groups reported that 'writing a letter of application' is 'very important' and 24.2% of them said that it is 'quite important', which equals **71.4%** as a total. **19.7%** of the students in the PBL groups placed this writing skill at a lower level of importance. On the other hand, as regards the Regular groups, 48.7% of the students regarded this skill as 'very important', and 30.8% of them reported that it is 'quite important', which accounts for **79.5%** as a total. **12.8%** of the students in the Regular groups reported a lower level of importance for this skill. Based on these

percentages, it can be said that the students in both groups tend to consider that 'being able to write a letter of application' is highly important for them.

Table-54 presents the t-test results on the students' attitude in both groups to 'writing a curriculum vitae'.

Table-54  
Students' Attitude to the Importance of  
'Writing a curriculum vitae' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.17 | 1.097 | .047     | .963                  |
| REGULAR | 117 | 4.16 | 1.129 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As can be seen in Table-54, both groups scored very highly for 'writing a curriculum vitae' as well; however, the t-test result indicates that there is no significant difference between the attitudes of the students in the two groups. The fact that the students in both groups scored so high for 'writing a curriculum vitae' indicates that they give great importance to it as part of a job application process.

Figure-54 shows the percentages of the level of importance for 'writing a curriculum vitae' for both groups.

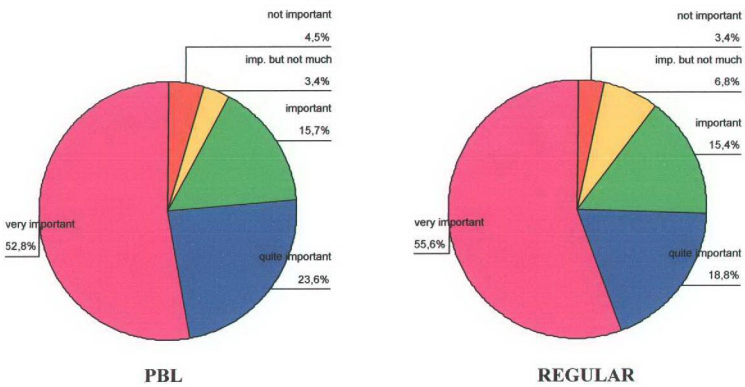


Figure-54: Percentages for 'writing a curriculum vitae'

As can be seen in Figure-54, both PBL and Regular groups seem to have scored similarly for each category on the scale for this sub-skill. 52.8% of the students in the PBL groups reported that 'writing a curriculum vitae' is 'very important' and 23.6% of them said that it is 'quite important', which equals **76.4%** as a total. **15.7%** of the students in the PBL groups placed this writing skill at a lower level of importance. On the other hand, as regards the Regular groups, 55.6% of the students regarded this skill as 'very important', and 18.8% of them reported that it is 'quite important', which accounts for **74.4%** as a total. **15.4%** of the students in the Regular groups reported a lower level of importance for this skill. Based on these percentages, it can be said that the students in both groups tend to consider that 'being able to write a curriculum vitae' is highly important for them.

In conclusion, as the t-test results indicated, the PBL and Regular groups did not differ much in their attitudes towards specific writing skills. Rather, they presented similar levels of importance for each skill. In addition, the percentages indicated that the students in both groups reported very similar and sometimes very close levels of importance for each skill.

Although the last two items of this section do not have anything to do with the departments the students are attending, it seems that they have concerns about finding jobs after their graduation and they consider that 'writing a letter of application' and 'writing a curriculum vitae' are important writing skills for them in a job application process.

The following list shows the writing skills that the students in the PBL groups found important. The skills were listed according to the mean scores and the total percentages of 'very important' and 'quite important' categories from the highest to the lowest:

1. Writing a curriculum vitae (CV) (M: 4.17 / 76.4%)
2. Writing a letter of application (M: 4.06 / 71.4%)
3. Writing my ideas clearly (M: 3.76 / 61.2%)
4. Writing an informative type of essay (M: 3.74 / 60.7%)
5. Writing an academic assignment in an order (M: 3.63 / 59.6%)
6. Correct word order (M: 3.58 / 55.6%)
7. Writing about the steps of a process (M: 3.47 / 55.5%)
8. Writing an article about a research project and its results (M: 3.54 / 55.1)
9. Writing a summary of what I've read (M: 3.54 / 54.5%)
10. Writing a 'cause-effect' type of essay (M: 3.47 / 53.5%)
11. Using the right /correct vocabulary (M: 3.59 / 50.3%)
12. Using conjunctions correctly and in the right place (M: 3.44 / 47.8%)
13. Writing an argumentative type of essay (M: 3.37 / 46.1%)
14. Writing a paragraph in an order (M: 3.33 / 43.3%)

#### 4.9 Findings and Comments on the Students' Attitudes to Specific Listening Comprehension Skills

This part of the study deals with the attitudes of the students in the PBL and Regular groups to the specific listening comprehension skills. The sub-skills listed in this section of the questionnaire were determined based on the views of the students and lecturers in both departments and reflected their ideas on listening comprehension acts as part of problem-based learning.

The data for this section were evaluated in terms of t-test results and percentages - as in the previous sections - in order to identify the listening comprehension skills that the students tend to use preferably in problem-based learning sessions with respect to their levels of importance.

Table-55 presents the t-test results on the students' attitude in both PBL and Regular groups to 'understanding the presentations and taking notes effectively'.

Table-55  
Students' Attitude to 'Understanding the presentations and taking notes effectively' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.39 | .858  | 3.379    | .001*                 |
| REGULAR | 117 | 3.97 | 1.125 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-55, the PBL groups scored a much higher mean score, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. This means that the students in the PBL groups give much more importance to 'understanding the presentations and taking notes effectively' in problem-based learning sessions.



Figure-55 shows the percentages of the level of importance for ‘understanding the presentations and taking notes effectively’.

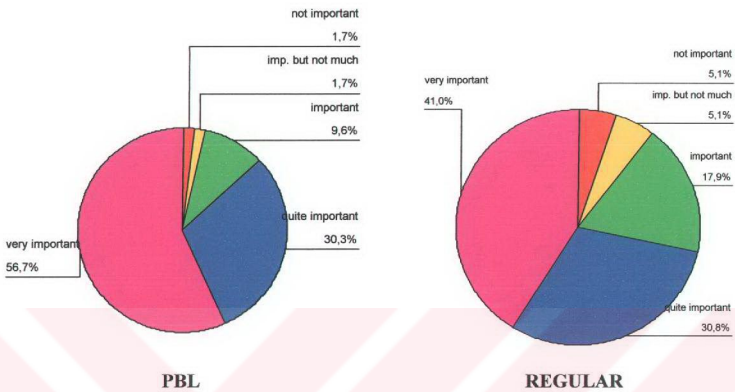


Figure-55: Percentages for ‘understanding the presentations and taking notes effectively’

As can be seen in Figure-55, The PBL groups seem to have scored very highly in comparison with the Regular groups. 56.7% of the students in the PBL groups reported that ‘understanding the presentations and taking notes effectively’ is ‘very important’ and 30.3% of them said that it is ‘quite important’, which equals **87%** as a total. Only 9.6% of the students in the PBL groups placed this skill at a lower level of importance. On the other hand, in the Regular groups, 41% of the students regarded this skill as ‘very important’, and 30.8% of them reported that it is ‘quite important’, which accounts for **71.8%** as a total. It seems that 17.9% of the students reported a lower level of importance for this skill and this is higher than that of the PBL group when compared, indicating a lower level of importance. These percentages also indicate that the students in the PBL groups give significantly much more importance to ‘understanding the presentations and taking notes effectively’ as part of the problem-based learning sessions.

Table-56 presents the t-test results on the students' attitude in both PBL and Regular groups to 'understanding the oral instructions given during presentations'.

Table-56  
Students' Attitude to 'Understanding the oral instructions given during presentations' (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.31 | .803  | 3.682    | .000*                 |
| REGULAR | 117 | 3.86 | 1.136 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-56, the PBL groups scored a much higher mean score, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. This means that the students in the PBL groups give much more importance to 'understanding the oral instructions given during presentations' in problem-based learning sessions.

Figure-56 shows the percentages of the level of importance for 'understanding the oral instructions given during presentations'.

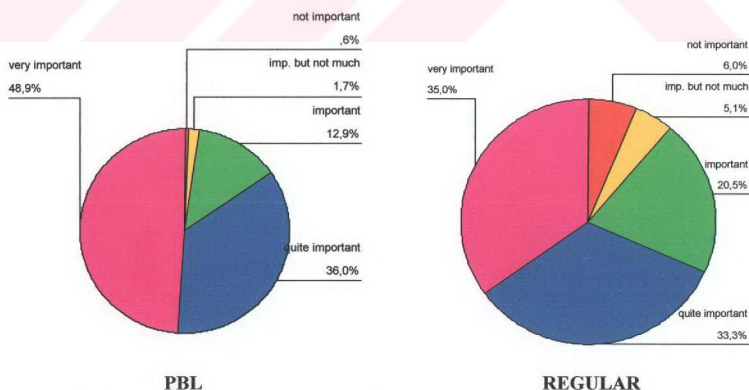


Figure-56: Percentages for 'understanding the oral instructions given during presentations'

As can be seen in Figure-56, The PBL groups seem to have scored very highly in comparison with the Regular groups. 48.9% of the students in the PBL groups reported that ‘understanding the oral instructions given during presentations’ is ‘very important’ and 36% of them said that it is ‘quite important’, which equals **84.9%** as a total. Only 12.9% of the students in the PBL groups placed this skill at a lower level of importance. On the other hand, in the Regular groups, 35% of the students regarded this skill as ‘very important’, and 30.3% of them reported that it is ‘quite important’, which accounts for **65.3%** as a total. 20.5% of the students reported a lower level of importance for this sub-speaking skill and this is higher than that of the PBL group when compared, indicating a lower level of importance. These percentages also indicate that the students in the PBL groups give significantly much more importance to ‘understanding the oral instructions given during presentations’ as part of the problem-based learning sessions.

Table-57 presents the t-test results on the students’ attitude in both PBL and Regular groups to ‘understanding the vocabulary in presentations’.

Table-57

Students’ Attitude to ‘Understanding the vocabulary in presentations (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.17 | .944  | 2.341    | .020                  |
| REGULAR | 117 | 3.89 | 1.135 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-57, the PBL groups scored a much higher mean score, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. This means that the students in the PBL groups give much more importance to ‘understanding the vocabulary in presentations’ in problem-based learning sessions.

Figure-57 shows the percentages for ‘understanding the vocabulary in presentations’.

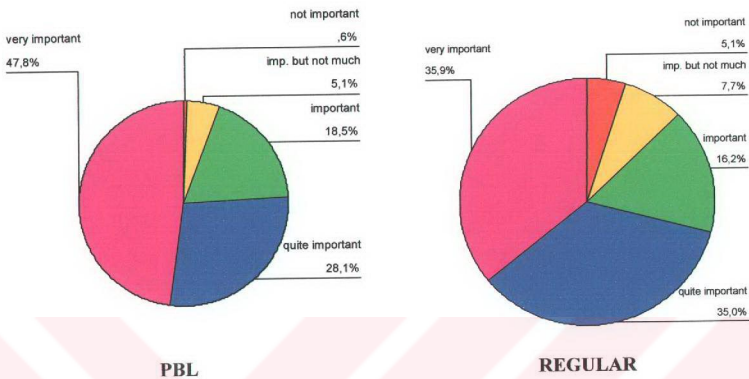


Figure-57: Percentages for ‘understanding the vocabulary in presentations’

As can be seen in Figure-57, The PBL groups seem to have scored higher in comparison with the Regular groups in the ‘very important’ category. 47.8% of the students in the PBL groups reported that ‘understanding the vocabulary in presentations’ is ‘very important’ and 28.1% of them said that it is ‘quite important’, which equals **75.9%** as a total. 18.5% of the students in the PBL groups placed this skill at a lower level of importance. On the other hand, in the Regular groups, 35.9% of the students regarded this sub-skill as ‘very important’, and 35% of them reported that it is ‘quite important’, which accounts for **70.9%** as a total. 16.2% of the students in the Regular Groups reported a lower level of importance for this skill. These percentages also indicate that the students in the PBL groups give more importance to ‘understanding the vocabulary in presentations’ as part of the problem-based learning sessions. It seems that the students in PBL groups value this skill more than the students in the Regular groups do.

In conclusion, based on the t-test results and the percentages on the students' attitude to the specific listening comprehension sub-skills, it can be said that the students in the PBL groups tend to see the listening comprehension skills emphasized in this section of the study more important than the students in the Regular groups do.



#### 4.10 Findings and Comments on the Students' Attitudes to the Use of English in Problem-based Learning

This part of the study deals with the attitudes of the students to the use of English in problem-based learning. Both PBL and Regular groups were asked to reply the questions in this section so that a comparison of attitudes could be made. This section of the questionnaire included nine statements. The Regular groups were asked to evaluate the use of English as part of their classes, so the term of 'problem-based learning' was replaced by 'your classes' or 'in your classes' in this version of the questionnaire. For each question in this section, the students were asked to select from five possible responses ("I totally agree", "I agree", "I partially agree", "I don't agree", and "I don't agree at all") to indicate their level of agreement with each statement. A value of 1 was assigned to "I don't agree at all", 2 to "I don't agree", 3 to "I partially agree", 4 to "I agree", and 5 to "I totally agree". Using these values, mean scores and standard deviations were calculated for each question; and the data were evaluated in terms of the t-test results and percentages as done in the previous sections.

Table-58 presents the t-test results on the students' attitude in both groups to "problem based learning / our classes require a very good level of English".

Table-58  
Students' Attitude to the "requirement of a very good level of English in PBL and Regular Groups" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.61 | .922  | 3.257    | .001*                 |
| REGULAR | 117 | 3.20 | 1.139 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As Table-58 presents, the PBL groups scored a much higher mean score, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. Based on this result, it can be said that the students in the PBL groups

agree that problem-based learning requires a very good level of English, and this requirement differs from that of the Regular groups.

Figure-58 presents the percentages for “requirement of a very good level of English in PBL and Regular Groups”.

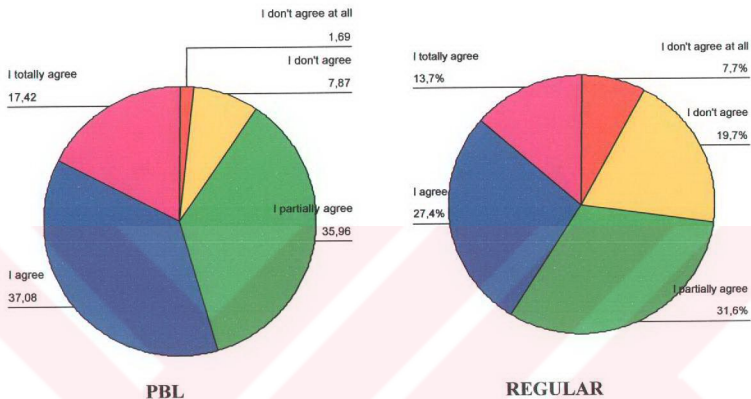


Figure-58: Percentages for “requirement of a very good level of English in PBL and Regular Groups”

When the percentages in Figure-58 are looked at, 17.4% of the students in the PBL groups totally agree that problem-based learning requires a good level of English. 37% of the students also agree that a good level of English is a requirement in problem-based learning, and 36% of the students partially agree that PBL requires a good level of English. Only about 8% of the students do not agree with this statement. The percentages for the Regular groups indicate a difference of attitude. 13.7% of the students in the Regular groups totally agree that their classes require a good level of English. 27.4% of them also agree with this requirement at a lower level, and 31.6% of the students partially agree with this statement. It is striking that 19.7% of the students in the Regular groups do not agree with this requirement and 7.7% do not agree at all. The percentages also indicate that there is a significant difference between the PBL and Regular groups with respect to the requirement for a good level of English.

Table-59 presents the t-test results on the students' attitude in both groups to "problem-based learning / our classes require using each language skill very well".

Table-59  
Students' Attitude to "Problem-based learning / Our classes require using each language skill very well" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.53 | .940  | 3.960    | .000*                 |
| REGULAR | 117 | 3.00 | 1.225 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-59, the PBL groups scored a much higher mean score, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. Based on this result, it can be said that the students in the PBL groups consider that problem-based learning requires using each language skill very well, and this requirement differs from that of the Regular groups.

Figure-59 presents the percentages for "problem based learning / our classes require using each language skill very well".

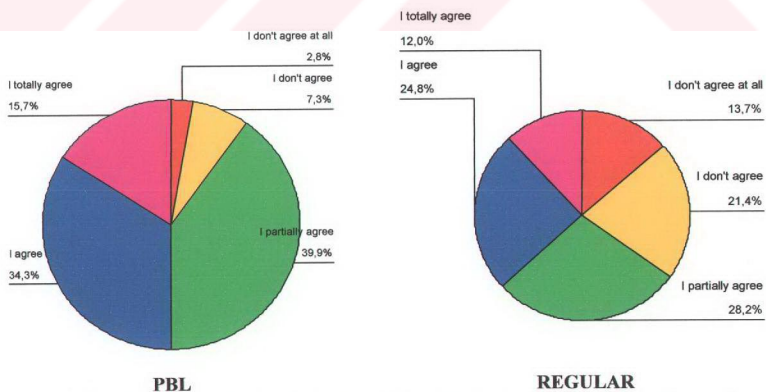


Figure-59: Percentages for "problem based learning / our classes require using each language skill very well"



When the percentages in Figure-59 are analyzed, it can be seen that 15.7% of the students in the PBL groups totally agree that problem-based learning requires using each language skill very well. 34.3% of the students also agree that using each language skill very well is a requirement in problem-based learning, and 39.9% of the students partially agree that PBL requires using each language skill very well. Only 7.3% of the students do not agree with this statement. The percentages for the Regular groups indicate a difference of attitude. 12% of the students in the Regular groups totally agree that their classes require using each language skill very well. 24.8% of them also agree with this requirement at a lower level, and 28.2% of the students partially agree with this statement. It is a striking result that 21.4% of the students in the Regular groups do not agree with this requirement and finally 13.7% of them do not agree at all that their classes require using each language skill very well. The percentages indicate that there is a significant difference between the PBL and Regular groups with respect to the requirement for using each language skill very well.

Table-60 presents the t-test results on the students' attitude in both groups to "in problem-based learning / in our classes, the writing skill is not emphasized much".

Table-60

Students' Attitude to "In problem-based learning / In our classes, the writing skill is not emphasized much" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.92 | 1.078 | 4.729    | .000*                 |
| REGULAR | 117 | 3.28 | 1.195 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As Table-60 shows, the PBL groups scored a much higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. This means that the students in the PBL

groups consider that the writing skill is not emphasized much in problem-based learning, and this validates the results received in the previous sections in relation to the specific writing skills.

Figure-60 presents the percentages for “in problem-based learning / in our classes, the writing skill is not emphasized much”.

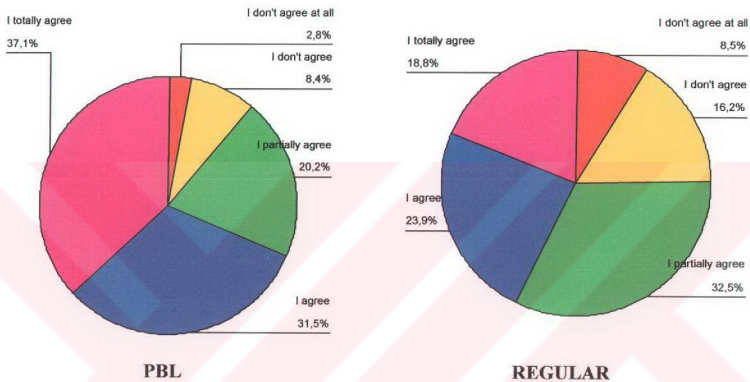


Figure-60: Percentages for “in problem-based learning / in our classes, the writing skill is not emphasized much”

The percentages in Figure-60 clearly indicate a great difference in the attitudes of the students in the two groups. It is seen that 37% of the students in the PBL groups totally agree that the writing skill is not emphasized much in problem-based learning, and 31.5% of the students also agree, and finally 20.2% of the students partially agree with this statement. Only 8.4% of the students do not agree with this statement. The percentages for the Regular groups indicate a difference of attitude. 18.8% of the students in the Regular groups totally agree that in their classes the writing skill is not emphasized much. 23.9% of them also agree with this statement at a lower level, and 32.5% of the students partially agree. It seems that 16.2% of the students in the Regular groups do not agree that the writing skill is not emphasized much, and finally 8.5% of them do not agree at all that the writing skill is not emphasized much. The percentages also indicate that there is a significant difference

between the PBL and Regular groups with respect to the emphasis given to the writing skill. Based on these percentages, it can be asserted that the writing skill is not emphasized in PBL as much as it is in the Regular groups. In other words, problem-based learning places less emphasis on the use of the writing skill.

Table-61 presents the t-test results on the students' attitude in both groups to "our exams do not require the use of the writing skill".

Table-61

Students' Attitude to "Our exams do not require the use of the writing skill" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.84 | 1.173 | 6.538    | .000*                 |
| REGULAR | 117 | 2.90 | 1.276 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As Table-61 shows, the PBL groups scored a much higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, which clearly shows that exams, as part of problem-based learning, do not require the use of the writing skill at all. This also shows that the writing skill is ignored in exams in problem-based learning.

Figure-61 presents the percentages for "our exams do not require the use of the writing skill".

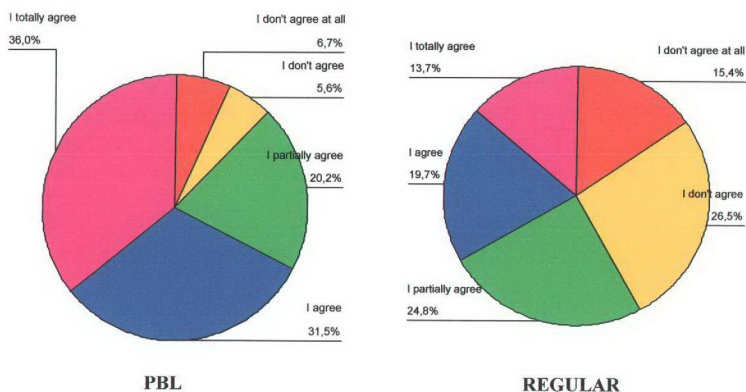


Figure-61: Percentages for “our exams do not require the use of the writing skill”

The percentages in Figure-61 clearly indicate the great difference in the attitudes of the students in the two groups. It can be seen that 36% of the students in the PBL groups totally agree that the exams do not require the use of the writing skill, and 31.5% of the students also agree, and finally 20.2% of the students partially agree with this statement. Only 5.6% of the students do not agree with this statement. The percentages for the Regular groups indicate a difference of attitude. Only 13.7% of the students in the Regular groups totally agree that the exams they are given do not require the use of the writing skill. 19.7% of them also agree with this statement at a lower level, and 24.8% of the students partially agree. It seems that 26.5% of the students in the Regular groups do not agree that the exams do not require the use of the writing skill, and finally 15.4% of them do not agree at all with this statement. The percentages also indicate that there is a significant difference between the PBL and Regular groups. Based on these percentages, it can be said that the exams in problem-based learning do not require the use of the writing skill as much as it is in the case of the Regular groups. In other words, problem-based learning places much less emphasis on the use of the writing skill in exams. (1)

(1) In problem-based learning, the students are tested after each module, which takes two or three weeks, has been covered. Question types used in such tests are usually multiple-choice or fill-in-the-gaps type or sometimes questions that require explanation as they are more objective and easy to evaluate. Students are also evaluated for participation in PBL sessions and their performance in practice / simulation.

Table-62 presents the t-test results on the students' attitude in both groups to "problem-based learning / our classes require knowledge of ESP terminology in the first year".

Table-62

Students' Attitude to "Problem-based learning / Our classes require knowledge of technical terminology in the first year" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.84 | 1.067 | 2.692    | .008*                 |
| REGULAR | 117 | 3.49 | 1.172 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As Table-62 shows, the PBL groups scored a higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, and this indicates that problem-based learning does require knowledge of technical terminology in the first year.

Figure-62 presents the percentages for "problem-based learning / our classes require knowledge of technical terminology in the first year".

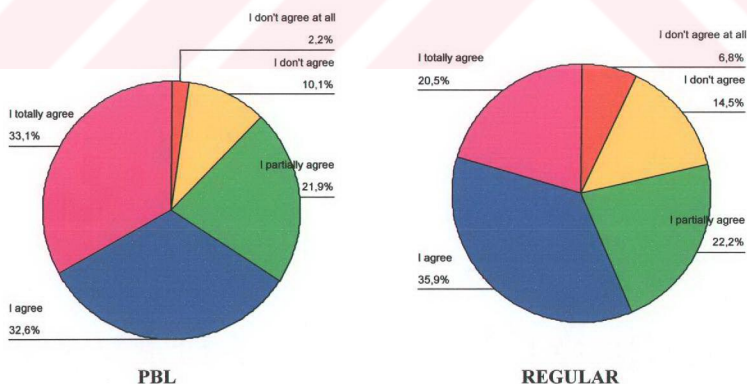


Figure-62: Percentages for "problem-based learning / our classes require knowledge of technical terminology in the first year"

The percentages in Figure-62 clearly indicate the great difference in the attitudes of the students in the two groups with respect to the requirement for knowledge of technical terminology in their fields of study in the first year. It can be seen that 33.1% of the students in the PBL groups totally agree that problem-based learning requires knowledge of technical terminology in the first year, and 32.6% of the students also agree with the statement at a lower lever, and finally 21.9% of the students partially agree with this requirement. 10% of the students do not agree with this statement. The percentages for the Regular groups indicate a difference of attitude. 20.5% of the students in the Regular groups totally agree that their classes require knowledge of technical terminology in the first year. 35.9% of them also agree with this statement at a lower level, and 22.2% of the students partially agree. It seems that 14.5% of the students in the Regular groups do not agree that their classes require knowledge of technical terminology in the first year, and finally 6.8% of them do not agree at all with this statement. The percentages also indicate that there is a significant difference between the PBL and Regular groups. Based on these percentages, it can be said that the students in PBL groups need more knowledge of technical terminology in the first year than the students in the Regular groups do.

Table-63 presents the t-test results on the students' attitude in both groups to "problem-based learning / our classes require oral use of English even if we make grammar mistakes".

Table-63

Students' Attitude to "Problem-based learning sessions / Our classes require oral use of English even if we make grammar mistakes" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.21 | .937  | 6.088    | .000*                 |
| REGULAR | 117 | 3.46 | 1.087 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-63, the PBL groups scored a much higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, and this indicates that problem-based learning sessions do require oral use of English even if students make grammar mistakes. The t-test result also reflects the importance of the oral use of English in problem-based learning.

Figure-63 presents the percentages for “problem-based learning sessions / our classes require oral use of English even if we make grammar mistakes”.

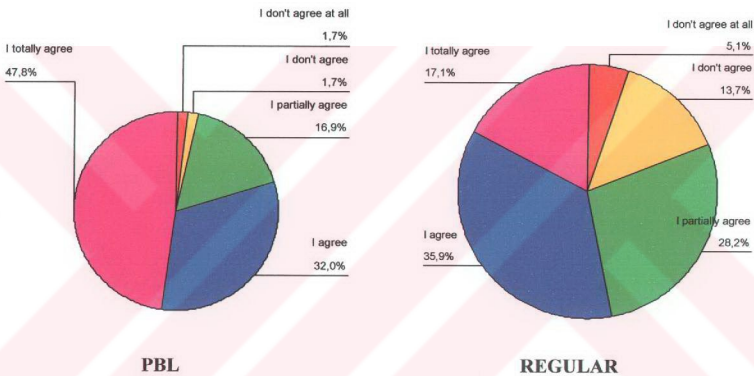


Figure-63: Percentages for “Problem-based learning sessions / Our classes require oral use of English even if we make grammar mistakes”

As can be seen in Figure-63, there is a great difference between the percentages for the two groups. 47.8% of the students in the PBL groups totally agree that problem-based learning sessions require oral use of English even if they make grammar mistakes, and 32% of the students also agree with the statement at a lower level, and finally 16.9% of the students partially agree with this requirement. The percentages for the Regular groups indicate a difference of attitude for this requirement. Only 17% of the students in the Regular groups totally agree that their classes require oral use of English even if they make grammar mistakes. 35.9% of them also agree with this statement at a lower level, and 28.2% of the students partially agree. It seems

that 13.7% of the students in the Regular groups do not agree that their classes require oral use of English even if they make grammar mistakes, and finally 5% of them do not agree at all with this statement. The percentages also indicate that there is a significant difference of attitude between the PBL and Regular groups. Based on these percentages, it can be said that problem-based learning sessions require oral use of English even if students make grammar mistakes.

Table-64 presents the t-test results on the students' attitude in both groups to "problem-based learning sessions / our classes require fluent use of English".

Table-64  
Students' Attitude to "Problem-based learning sessions / Our classes require fluent use of English" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.61 | 1.037 | 3.074    | .002*                 |
| REGULAR | 117 | 3.21 | 1.166 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-64, the PBL groups scored a higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, which indicates that problem-based learning sessions require a more fluent use of English. However, based on the lower mean score in comparison with the mean score for the requirement of oral use of English even if students make grammar mistakes, it can be said that although there is a great agreement on the requirement of oral use of English in PBL sessions, the students consider that fluency is not so essential.

Figure-64 presents the percentages for "problem-based learning sessions / our classes require fluent use of English".



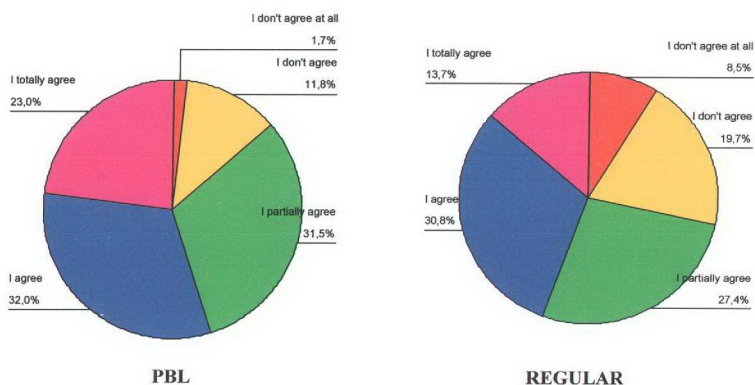


Figure-64: Percentages for “problem-based learning sessions / our classes require fluent use of English”

As can be seen in Figure-64, there is a difference between the percentages for the two groups. 23% of the students in the PBL groups totally agree that problem-based learning sessions require fluent use of English, and 32% of the students also agree with the statement at a lower level, and finally 31.5% of the students partially agree with this requirement. 11.8% of the students in the PBL groups do not agree with the requirement for fluent use of English in problem-based learning sessions. The percentages for the Regular groups indicate a difference of attitude for this requirement. 13.7% of the students in the Regular groups totally agree that their classes require fluent use of English. 30.8% of them also agree with this statement at a lower level, and 27.4% of the students partially agree. It seems that 19.7% of the students in the Regular groups do not agree that their classes require fluent use of English, and finally 8.5% of them do not agree at all with this requirement. The percentages also indicate that there is a significant difference of attitude between the PBL and Regular groups with respect to the requirement for fluent use of English. Based on these percentages, it can be said that problem-based learning sessions require more fluent use of English.

Table-65 presents the t-test results on the students' attitude in both groups to "problem-based learning sessions / our classes require us to understand what's being discussed".

Table-65

Students' Attitude to "Problem-based learning sessions / Our classes require us to understand what's being discussed" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 4.18 | 1.009 | 3.937    | .000*                 |
| REGULAR | 117 | 3.69 | 1.086 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As can be seen in Table-65, the PBL groups scored a much higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, and this indicates that problem-based learning sessions do require students to understand what is being discussed. The t-test result also reflects the importance of listening comprehension in problem-based learning sessions.

Figure-65 presents the percentages for "problem-based learning sessions / our classes require us to understand what's being discussed".

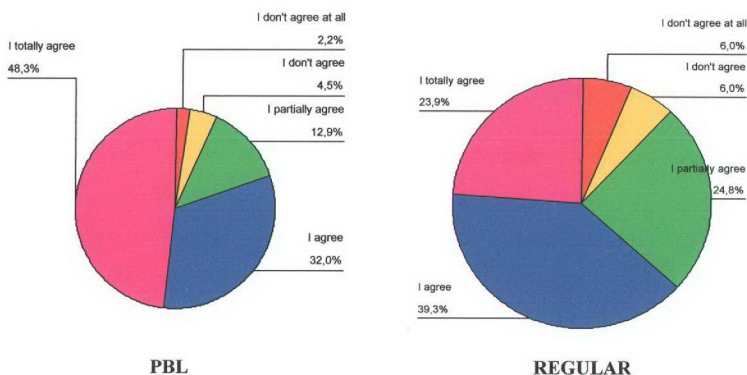


Figure-65: Percentages for “problem-based learning sessions / Our classes require us to understand what’s being discussed”

As can be seen in Figure-65, there is a great difference between the percentages for the two groups. 48.3% of the students in the PBL groups totally agree that problem-based learning sessions require the students to understand what’s being discussed, and 32% of the students also agree with the statement at a lower level, and finally 12.9% of the students partially agree with this requirement. Only 4.5% of the students in the PBL groups do not agree with this requirement. The percentages for the Regular groups indicate a clear difference of attitude for this requirement. 23.9% of the students in the Regular groups totally agree that their classes require them to understand what’s being discussed. 39.3% of them also agree with this statement at a lower level, and 24.8% of the students partially agree. It seems that 6% of the students in the Regular groups do not agree that their classes require them to understand what’s being discussed, and similarly 6% of them not agree at all with this statement. The percentages also indicate that there is a significant difference of attitude between the PBL and Regular groups in this sense. Based on these percentages, it can be said that problem-based learning sessions require the students to understand what’s being discussed.

Table-66 presents the t-test results on the students' attitude in both groups to "problem-based learning sessions / our classes require us to read various sources in their fields of study".

Table-66

Students' Attitude to "Problem-based learning sessions / Our classes require us to read various sources in our field of study" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 178 | 3.85 | 1.123 | 2.747    | .006*                 |
| REGULAR | 117 | 3.49 | 1.055 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

As Table-66 shows, the PBL groups scored a higher mean score than the Regular groups, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups, and this indicates that problem-based learning sessions do require students to read various sources in their field of study. The t-test result is also a reflection of the importance of reading as part of problem-based learning.

Figure-66 presents the percentages for "problem-based learning sessions / our classes require us to read various sources in their field of study".

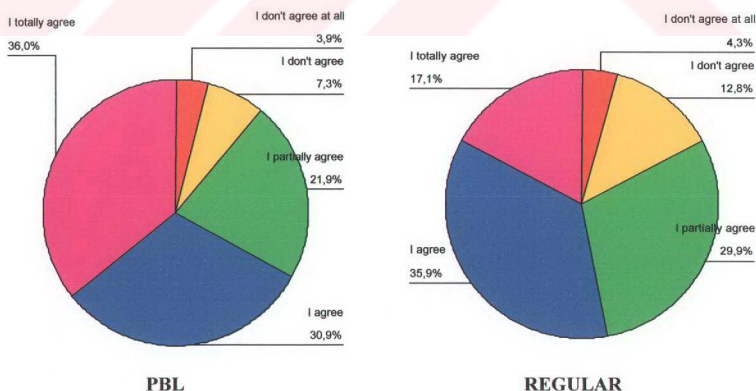


Figure-66: Percentages for "problem-based learning sessions / our classes require us to read various sources in our field of study"

The percentages in Figure-66 clearly indicate a difference in the attitudes of the students in the two groups. 36% of the students in the PBL groups totally agree that problem-based learning sessions require them to read various sources in their field of study, and 30.9% of the students also agree, and finally 21.9% of the students partially agree with this statement. Only 7.3% of the students do not agree with this statement. The percentages for the Regular groups indicate a difference of attitude. 17% of the students in the Regular groups totally agree that their classes require them to read various sources. 35.9% of them also agree with this statement at a lower level, and 29.9% of the students partially agree. It seems that 12.8% of the students in the Regular groups do not agree that their classes require them to read various sources in their field of study, and finally 4.3% of them do not agree with this requirement at all. Based on these percentages, it can be said that problem-based learning sessions require the students to read various sources in their fields.

In conclusion, based on the t-test results and percentages, it seems that PBL groups differ from the Regular groups in their attitudes with respect to the use of English in this method of learning and as part of PBL sessions. First of all, the results indicate that problem-based learning requires a good level of English and using each language skill very well. Secondly, the students in the PBL groups also stress that the writing skill is not emphasized much in problem-based learning and the exams they are given do not require a very good command of the writing skill. Thirdly, the students believe that problem-based learning requires knowledge of technical terminology in the first year, and that PBL sessions require the students to read various sources in their fields of study. Another important fact to be stressed is that the students in the PBL groups believe that problem-based learning sessions require oral use of English without much emphasis on accuracy and fluency. Finally, the students also strongly believe that problem-based learning sessions require them to understand what's being discussed.

#### 4.11 Findings and Comments on the Students' Assessment of the Prep Program They Attended

This part of the study focuses on students' assessment of the English preparatory program which the students in the PBL and Regular groups had previously attended and specifically aims at highlighting the views of the students in problem-based learning on various aspects of the prep program they had attended and providing an assessment of the prep program in general.

This section of the questionnaire contained 13 items and was replied by 151 students in the PBL group and 63 in the Regular group, who had attended the prep program at the School of Foreign Languages, DEU. As part of the results, the data were first evaluated based on the t-test results to see whether there was any significant difference or similarity between the views of the students in the two different groups. After this analysis, the percentages were also calculated as done in the previous sections, but separately in order to get a better picture of the views of the students in the PBL groups about the prep program they had attended previously; hence, the percentages were not compared but presented in an isolated fashion.

Table-67 presents the t-test results on the students' attitude to the statement of "the grammar knowledge I gained at the prep program formed a good level for the PBL sessions / or classes".

Table-67

Students' Attitude to the statement of "The grammar knowledge I gained at the prep program formed a good basis for the PBL sessions / or classes " (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.27 | 1.216 | .264     | .792                  |
| REGULAR | 63  | 3.22 | 1.313 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As the t-test result shows in Table-67, the mean scores for both PBL and Regular groups fall in the fourth level on the scale and there is no significant difference

between the PBL and Regular groups with respect to the grammar knowledge they gained at the prep program in forming a good level for their studies. This means that the students in both groups agree at a similar level that the grammar knowledge they gained at the prep program formed a good level for their studies.

Figure-67(a) shows the percentages of the students' views in the PBL groups on the grammar knowledge they gained at the prep program, and Figure 67(b) shows the percentages of the students in Regular groups.

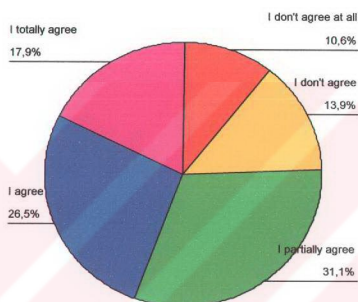


Figure-67(a): Percentages for “the grammar knowledge I gained at the prep program formed a good basis for the PBL sessions” (PBL)

As can be seen in Figure-67(a), 17.9% of the students in the PBL groups totally agree that the grammar knowledge they gained at the prep program formed a good basis for their studies, and 26.5% of them seem to agree with the statement at a lower level. 31% of the students partially agree. 13.9% of the students do not agree with the statement; and finally 10.6% of them do not agree at all that the grammar knowledge they gained at the prep program formed a good basis for their studies. It seems that an important majority of the students in the PBL groups have a positive view on the grammar knowledge they gained at the prep program.

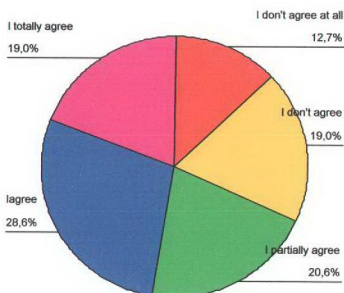


Figure-67(b): Percentages for “the grammar knowledge I gained at the prep program formed a good basis for our classes” (Regular)

As can be seen in Figure-67(b), 19% of the students in the Regular groups totally agree that the grammar knowledge they gained at the prep program formed a good basis for their classes, and 28.6% of them seem to agree with the statement at a lower level. 20.6% of the students partially agree. 19% of the students do not agree with the statement; and finally 12.7% of them do not agree at all that the grammar knowledge they gained at the prep program formed a good basis for their classes.

Table-68 presents the t-test results on the students’ attitude to the statement of “I still have difficulty using English grammar”.

Table-68

Students’ Attitude to “I still have difficulty using English grammar” (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.49 | 1.101 | -.882    | .379                  |
| REGULAR | 63  | 3.63 | 1.082 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$



According to Table-68, although there seems to be some difference between the mean scores of the two groups, there is no significant difference between them as the t-test result indicates. It can be said that the students in both groups still have difficulty at a similar level in using English grammar.

Figure-68(a) shows the percentages of the students' views in the PBL groups on whether they still have difficulty in using English grammar, and Figure 68(b) shows the percentages of the students in Regular groups.

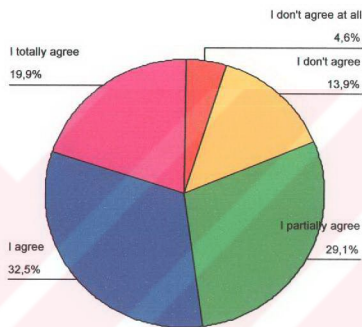


Figure-68(a): Percentages for “I still have difficulty using English grammar” (PBL)

As can be seen in Figure-68(a), 19.9% of the students in the PBL groups totally agree that they still have difficulty in using English grammar, and 32.5% of them seem to agree with the statement at a lower level. 29.1% of the students partially agree. 13.9% of the students do not agree with the statement; and finally 4.6% of them do not agree at all that they have difficulty in using English grammar. It seems that the percentage of the students who do not have difficulty using English grammar is quite low. It is a striking fact that an important majority of the students in the PBL groups still have difficulty in using English grammar.

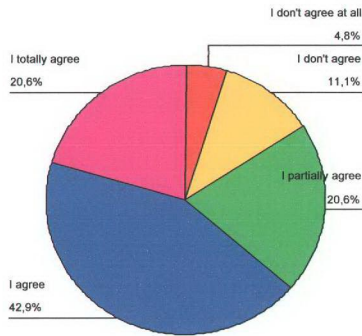


Figure-68(b): Percentages for “I still have difficulty using English grammar” (Regular)

As can be seen in Figure-68(b), 20.6% of the students in the Regular groups totally agree that they still have difficulty in using English grammar, and 42.9% of them seem to agree with the statement at a lower level. 20.6% of the students partially agree. 11.1% of the students do not agree with the statement; and finally 4.8% of them do not agree at all that they have difficulty in using English grammar.

Table-69 presents the t-test results on the students’ attitude to the statement of “I tend to think in Turkish while using English orally”.

Table-69

Students’ Attitude to “I tend to think in Turkish while using English orally” (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.80 | .887  | 1.309    | .193                  |
| REGULAR | 63  | 3.60 | 1.056 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

According to Table-69, even though there seems to be some difference between the mean scores of the two groups, the t-test result shows that there is no significant

difference between them. The students in both groups seem to agree that they tend to think in Turkish while using English orally at a similar level.

Figure-69(a) shows the percentages of the students' views in the PBL groups on whether they tend to think in Turkish while using English orally, and Figure 69(b) shows the percentages of the students in the Regular groups.

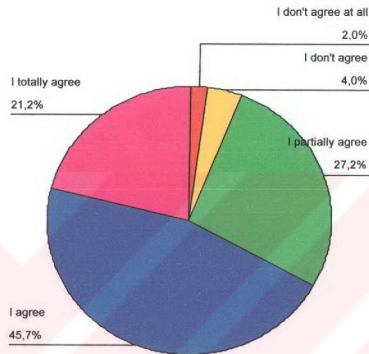


Figure-69(a): Percentages for “I tend to think in Turkish while using English orally” (PBL)

As can be seen in Figure-69(a), 21.2% of the students in the PBL groups totally agree that they tend to think in Turkish while using English orally; and 45.7% of them seem to agree with the statement at a lower level. 27.2% of the students partially agree. 4% of the students do not agree with the statement; and finally 2% of them do not agree at all that they tend to think in Turkish while using English orally. It seems that the percentage of the students who tend to think in Turkish while using English orally is quite high in the PBL groups.

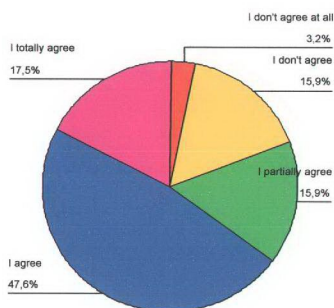


Figure-69(b): Percentages for “I tend to think in Turkish while using English orally” (Regular)

As can be seen in Figure-69(b), 17.5% of the students in the Regular groups totally agree that they tend to think in Turkish while using English orally, and 47.6% of them seem to agree with the statement at a lower level. 15.9% of the students partially agree. 15.9% of the students do not agree with the statement; and finally 3.2% of them do not agree at all that they tend to think in Turkish while using English orally.

Table-70 presents the t-test results on the students' attitude to the statement of “I learned English well enough at the prep program to be able to speak ”.

Table-70

Students' Attitude to “I learned English well enough at the prep program to be able to speak ” (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.28 | 1.174 | 1.330    | .185                  |
| REGULAR | 63  | 3.05 | 1.224 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

According to Table-70, even though there seems to be some difference between the mean scores of the two groups, the t-test result indicates that there is no significant difference between the PBL and Regular groups. The students in both groups seem to report at a similar level that they learned English well enough at the prep program to be able to speak.

Figure-70(a) shows the percentages of the views of the students in the PBL groups on the statement “I learned English well enough at the prep program to be able to speak”; and Figure 70(b) shows the percentages of the students in Regular groups.

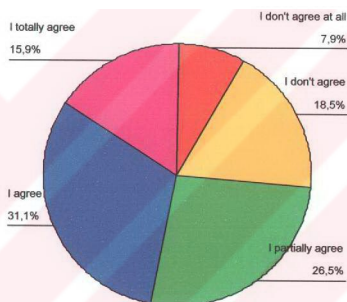


Figure-70(a): Percentages for “I learned English well enough at the prep program to be able to speak” (PBL)

As can be seen in Figure-70(a), 15.9% of the students in the PBL groups totally agree that they learned English well enough at the prep program to be able to speak, and 31% of them seem to agree with the statement at a lower level. 26.5% of the students partially agree. 18.5% of the students do not agree with the statement; and finally %7.9 of them do not agree at all that they learned English well enough at the prep program to be able to speak. It seems that the percentage of the students in the PBL groups, who agree that they learned English well enough at the prep program to be able to speak, represents an important majority.

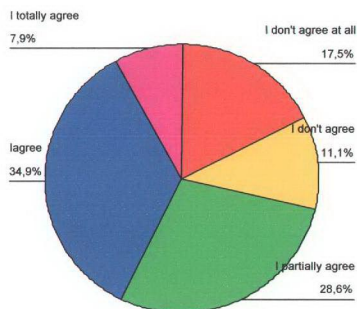


Figure-70(b): Percentages for “I learned English well enough at the prep program to be able to speak ” (Regular)

As can be seen in Figure-70(b), 7.9% of the students in the Regular groups totally agree that they learned English well enough at the prep program to be able to speak, and 34.9% of them seem to agree with the statement at a lower level. 28.6% of the students partially agree. 11% of the students do not agree with the statement; and finally 17.5% of them do not agree at all that they learned English well enough at the prep program to be able to speak.

Table-71 presents the t-test results on the students’ attitude to the statement of “I found that I had improved my vocabulary at the program well enough to adapt to PBL / our classes”.

Table-71

Students’ Attitude to “I found that I had improved my vocabulary at the prep program well enough to adapt to PBL / our classes” (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.05 | 1.193 | 2.058    | .041*                 |
| REGULAR | 63  | 2.68 | 1.216 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

According to Table-71, there seems to be a remarkable difference between the mean scores, and as the t-test result shows, there is a significant difference at the  $p < 0.05$  level between the two groups. Based on this result, it can be said that the students in the PBL groups seem to agree that they improved their vocabulary well enough to adapt to problem-based learning.

Figure-71(a) shows the percentages of the views of the students in the PBL groups on the statement “I found that I had improved my vocabulary at the program well enough to adapt to PBL”; and Figure 71(b) shows the percentages of the students in Regular groups.

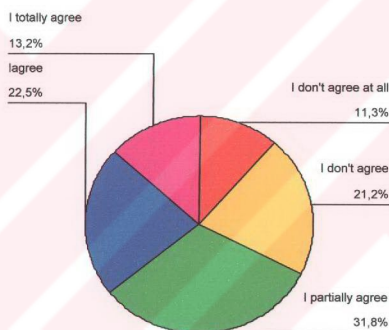


Figure-71(a): Percentages for “I found that I had improved my vocabulary at the prep program well enough to adapt to PBL

As can be seen in Figure-71(a), 13.2% of the students in the PBL groups totally agree that they had improved their vocabulary at the prep program well enough to adapt to PBL, and 22.5% of them seem to agree with the statement at a lower level. 31.8% of the students partially agree. 21.2% of the students do not agree with the statement; and finally 11.3% of them do not agree at all that they had improved their vocabulary at the program well enough to adapt to PBL. It seems that the percentage of the students in the PBL groups, who agree that they had improved their vocabulary at the program well enough to adapt to PBL, does represent an important majority, but the

percentage of those who do not agree represents one-third of the student population (32.5%).

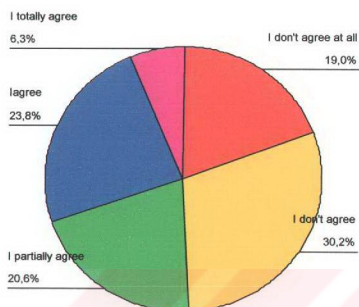


Figure-71(b): Percentages for “I found that I had improved my vocabulary at the program well enough to adapt to our classes” (Regular)

As can be seen in Figure-71(b), 6.3% of the students in the Regular groups totally agree that they had improved their vocabulary at the program well enough to adapt to their classes, and 23.8% of them seem to agree with the statement at a lower level. 20.6% of the students partially agree. 30.2% of the students do not agree with the statement; and finally 19% of them do not agree at all that they had improved their vocabulary at the program well enough to adapt to their classes. The students in the Regular groups seem to have a more negative view on this statement.

Table-72 presents the t-test results on the students’ attitude to the statement of “I benefited a lot from the reading activities at the prep program”.



Table-72  
Students' Attitude to "I benefited a lot from the reading activities  
at the prep program " (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 2.97 | 1.177 | .474     | .636                  |
| REGULAR | 63  | 2.89 | 1.220 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

According to Table-72, as the *t*-test result indicates, there is no significant difference between the PBL and Regular groups regarding whether they benefited a lot from the reading activities at the prep program. The students in both groups seem to agree on the degree they benefited from the reading activities. The fact that both groups' mean scores are lower than "3" draws the attention.

Figure-72(a) shows the percentages of the views of the students in the PBL groups on the statement "I benefited a lot from the reading activities at the prep program"; and Figure 72(b) shows the percentages of the students in Regular groups.

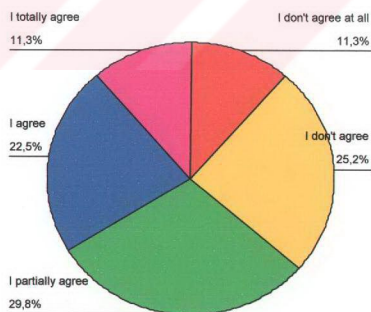


Figure-72(a): Percentages for "I benefited a lot from the reading activities at the prep program" (PBL)

As can be seen in Figure-72(a), 11.3% of the students in the PBL groups totally agree that they benefited a lot from the reading activities at the prep program, and 22.5% of them seem to agree with the statement at a lower level. 29.8% of the students partially agree. 25.2% of the students do not agree with the statement; and finally 11.3% of them do not agree at all that they benefited a lot from the reading activities at the prep program. It seems that the percentage of the students in the PBL groups, who agree that they benefited a lot from the reading activities at the prep program, represents a low majority, and the percentage of those who do not agree that they benefited a lot from the reading activities at the prep program represents more than one-third of the student population (36.5%). The percentages suggest that the reading program be developed and made more challenging for the students.



Figure-72(b): Percentages for “I benefited a lot from the reading activities at the prep program” (Regular)

As can be seen in Figure-72(b), 11% of the students in the Regular groups totally agree that they benefited a lot from the reading activities at the prep program, and 20.6% of them seem to agree with the statement at a lower level. 28.6% of the students partially agree. 25.4% of the students do not agree with the statement; and finally 14.3% of them do not agree at all that they benefited a lot from the reading activities at the prep program.

Table-73 presents the t-test results on the students' attitude to the statement of "I did not have much difficulty in reading comprehension after the prep program".

Table-73

Students' Attitude to "I did not have much difficulty in reading comprehension after the prep program" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.23 | 1.144 | 2.313    | .022*                 |
| REGULAR | 63  | 2.83 | 1.171 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

According to Table-73, there seems to be a clear difference between the mean scores, and as the t-test result shows, there is a significant difference at the  $p < 0.05$  level between the two groups. It can be said that the students in the PBL groups had less difficulty in reading comprehension after the prep program.

Figure-73(a) shows the percentages of the views of the students in the PBL groups on the statement of "I did not have much difficulty in reading comprehension after the prep program"; and Figure 73(b) shows the percentages of the students in Regular groups.

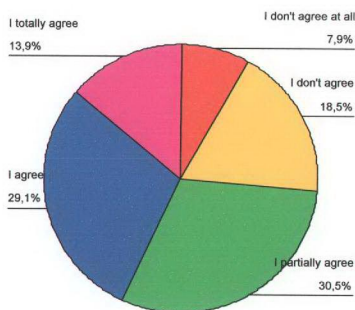


Figure-73(a): Percentages for "I did not have much difficulty in reading comprehension after the prep program" (PBL)

As can be seen in Figure-73(a), 13.9% of the students in the PBL groups totally agree that they did not have much difficulty in reading comprehension after the prep program, and 29.1% of them seem to agree with the statement at a lower level. 30.5% of the students partially agree. 18.5% of the students do not agree with the statement; and finally 7.9% of them do not agree at all that they did not have much difficulty in reading comprehension after the prep program. It seems that the percentage of the students in the PBL groups, who totally agree that they did not have much difficulty in reading comprehension after the prep program, represents a low majority, and the percentage of those who do not agree with this statement represents about one-fourth of the student population.



Figure-73(b): Percentages for “I did not have much difficulty in reading comprehension after the prep program” (Regular)

As can be seen in Figure-73(b), 9.5% of the students in the Regular groups totally agree that they did not have much difficulty in reading comprehension after the prep program, and 15.9% of them seem to agree with the statement at a lower level. 38.1% of the students partially agree. 20.6% of the students do not agree with the statement; and finally 15.9% of them do not agree at all that they did not have much difficulty in reading comprehension after the prep program.

Table-74 presents the t-test results on the students' attitude to the statement of "I gained a good pronunciation at the prep program".

Table-74

Students' Attitude to "I gained a good pronunciation at the prep program" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.10 | 1.221 | 2.343    | .020*                 |
| REGULAR | 63  | 2.67 | 1.257 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p < 0.05$

According to Table-74, there seems to be a great difference between the mean scores, and the t-test result shows that there is a significant difference at the  $p < 0.05$  level between the two groups. Based on this result, it can be said that the students in the PBL groups seem to have gained a better pronunciation at the prep program.

Figure-74(a) shows the percentages of the views of the students in the PBL groups on the statement "I gained a good pronunciation at the prep program"; and Figure 74(b) shows the percentages of the students in Regular groups.



Figure-74(a): Percentages for "I gained a good pronunciation at the prep program" (PBL)

As can be seen in Figure-74(a), 13.9% of the students in the PBL groups totally agree that they gained a good pronunciation at the prep program, and 25.2% of them seem to agree with the statement at a lower level. 30.5% of the students partially agree. 17.9% of the students do not agree with the statement; and finally 12.6% of them do not agree at all that they gained a good pronunciation at the prep program. It seems that the percentage of the students in the PBL groups, who totally agree that they gained a good pronunciation at the prep program, represents a low majority, and the percentage of those who do not agree that they gained a good pronunciation at the prep program represents one-third of the student population.

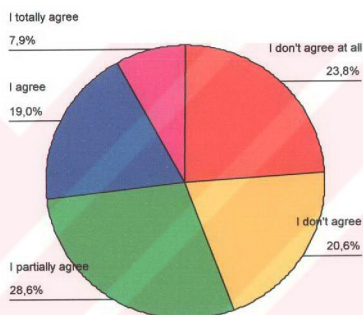


Figure-74(b): Percentages for “I gained a good pronunciation at the prep program” (Regular)

As can be seen in Figure-74(b), 7.9% of the students in the Regular groups totally agree that they gained a good pronunciation at the prep program, and 19% of them seem to agree with the statement at a lower level. 28.6% of the students partially agree. 20.6% of the students do not agree with the statement; and finally 23.8% of them do not agree at all that they gained a good pronunciation at the prep program.

Table-75 presents the t-test results on the students’ attitude to the statement of “There are still times that I’m not sure I pronounce the words accurately”.

Table-75

Students' Attitude to "There are still times that I'm not sure I pronounce the words accurately" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.31 | 1.150 | -1.398   | .164                  |
| REGULAR | 63  | 3.56 | 1.202 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

According to Table-75, as the *t*-test result shows, there is no significant difference between the PBL and Regular groups. The students in both groups seem to report that at times they are not certain they pronounce the word accurately. In this sense, it needs to be stressed that the mean score for the PBL groups is a little lower than that of the Regular group, and this may stem from the degree of use of English in problem-based learning sessions.

Figure-75(a) shows the percentages of the views of the students in the PBL groups on the statement "There are still times that I'm not sure I pronounce the words accurately"; and Figure 75(b) shows the percentages of the students in Regular groups.

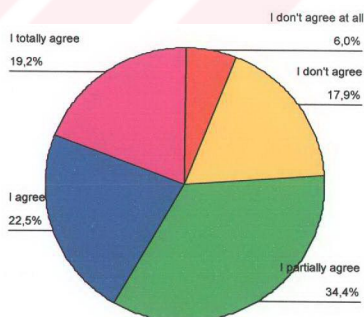


Figure-75(a): Percentages for "There are still times that I'm not sure I pronounce the words accurately" (PBL)

As can be seen in Figure-75(a), 19.2% of the students in the PBL groups totally agree that there are still times that they are not sure they pronounce the words accurately; and 22.5% of them seem to agree with the statement at a lower level. 34.4% of the students partially agree. 17.9% of the students do not agree with the statement; and finally 6% of them do not agree at all with this statement. It seems that the percentage of the students in the PBL groups, who agree that they are sometimes unsure they pronounce the words accurately, is 41.7% as a total, and the percentage of those who seem to have no trouble with pronunciation represents nearly one-fourth of the student population (23.9%).

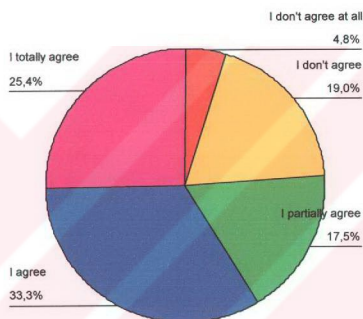


Figure-75(b): Percentages for “There are still times that I’m not sure I pronounce the words accurately” (Regular)

As can be seen in Figure-75(b), 25.4% of the students in the Regular groups totally agree that they are sometimes unsure they pronounce the words accurately, and 33.3% of them seem to agree with the statement at a lower level. 17.5% of the students partially agree. 19% of the students do not agree with the statement; and finally 4.8% of the students seem to have no trouble about pronunciation.

Table-76 presents the t-test results on the students’ attitude to the statement of “I still have trouble in expressing my ideas orally”.



Table-76

Students' Attitude to "I still have trouble in expressing my ideas orally" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.39 | 1.125 | -1.745   | .082                  |
| REGULAR | 63  | 3.68 | 1.090 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

As the *t*-test result shows in Table-76, there is no significant difference between the PBL and Regular groups. The students in both groups seem to report that they still have trouble in expressing their ideas orally. The fact that the mean score for the PBL groups is lower than that of the Regular group may stem from the need for use of English in problem-based learning sessions.

Figure-76(a) shows the percentages of the views of the students in the PBL groups on the statement of "I still have trouble in expressing my ideas orally"; and Figure 76(b) shows the percentages of the students in Regular groups.

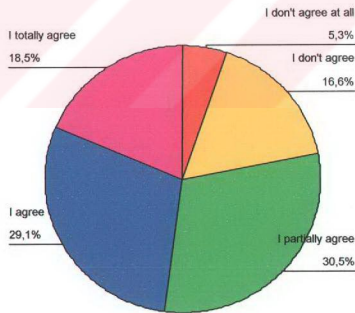


Figure-76(a): Percentages for "I still have trouble in expressing my ideas orally" (PBL)

As seen in Figure-76(a), 18.5% of the students in the PBL groups totally agree that they still have trouble in expressing their ideas orally; and 29% of them seem to

agree with the statement at a lower level. 30.5% of the students partially agree. 16.6% of the students do not agree with the statement; and finally 5.3% of them do not agree at all with this statement. It seems that an important majority of the students in the PBL groups seems to have trouble in expressing their ideas orally, and in contrast the percentage of those who seem to have no trouble in expressing their ideas orally represents about one-fifth (21.9%) of the student population.

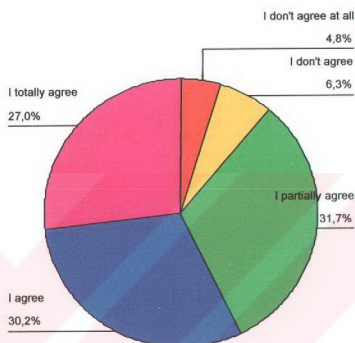


Figure-76(b): Percentages for “I still have trouble in expressing my ideas orally”  
(Regular)

As can be seen in Figure-76(b), 27% of the students in the Regular groups totally agree that they still have trouble in expressing their ideas orally, and 30.2% of them seem to agree with the statement at a lower level. 31.7% of the students partially agree. 6.3% of the students do not agree with the statement; and finally 4.8% of the students seem to have no trouble in expressing their ideas orally.

Table-77 presents the t-test results on the students’ attitude to the statement of “I have difficulty participating in oral discussions”.

Table-77

Students' Attitude to "I have difficulty participating in oral discussions" (*t*-test)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.30 | 1.194 | -1.209   | .228                  |
| REGULAR | 63  | 3.52 | 1.242 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$ 

As the *t*-test result shows in Table-77, there is no significant difference between the PBL and Regular groups. The students in both groups seem to report that they have difficulty participating in oral discussions. The mean score for the PBL groups is lower than that of the Regular group and this may be due to the fact that problem-based learning sessions require students to participate in oral discussions.

Figure-77(a) shows the percentages of the views of the students in the PBL groups on the statement of "I have difficulty participating in oral discussions"; and Figure 77(b) shows the percentages of the students in Regular groups.

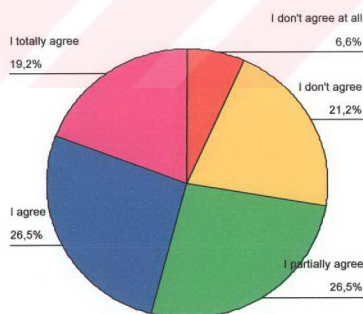


Figure-77(a): Percentages for "I have difficulty participating in oral discussions" (PBL)

As seen in Figure-77(a), 19.2% of the students in the PBL groups totally agree that they still have difficulty participating in oral discussions; and 26.5% of them also

agree with the statement at a lower level, which together makes up 45.7% of the student population. 26.5% of the students partially agree. 21.2% of the students do not agree with the statement; and finally 6.6% of them do not agree at all with this statement. It seems that an important majority of the students in the PBL groups seems to have difficulty participating in oral discussions; and in contrast, the percentage of those who seem to have no difficulty participating in oral discussions represents about one-fourth (27.8%) of the student population.

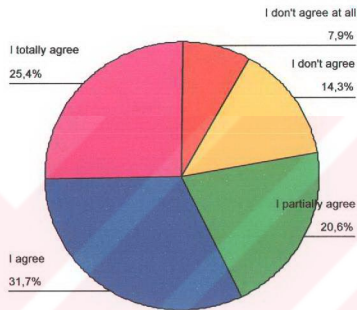


Figure-77(b): Percentages for “I have difficulty participating in oral discussions” (Regular)

As can be seen in Figure-77(b), 25.4% of the students in the Regular groups totally agree that they have difficulty participating in oral discussions, and 31.7% of them seem to agree with the statement at a lower level. 20.6% of the students partially agree. 14.3% of the students do not agree with the statement; and finally 7.9% of the students seem to have no difficulty participating in oral discussions.

Table-78 presents the t-test results on the students’ attitude to the statement of “The prep program enabled me to improve my writing skill well enough”.

Table-78

Students' Attitude to "The prep program enabled me to improve my writing skill well enough" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.10 | 1.147 | .115     | .909                  |
| REGULAR | 63  | 3.08 | 1.182 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

The *t*-test result in Table-78 shows that there is no significant difference between the PBL and Regular groups. The students in both groups seem to agree at a similar level that the prep program enabled them to improve their writing skill to a certain degree.

Figure-78(a) shows the percentages of the views of the students in the PBL groups on the statement of "The prep program enabled me to improve my writing skill well enough"; and Figure 78(b) shows the percentages of the students in Regular groups.



Figure-78(a): Percentages for "The prep program enabled me to improve my writing skill well enough" (PBL)

As seen in Figure-78(a), 11.9% of the students in the PBL groups totally agree that the prep program enabled them to improve their writing skill well enough; and 25.2% of them seem to agree with the statement at a lower level, which together equals 37.1% and indicates a low percentage. 33.8% of the students partially agree. 19.2% of the students do not agree with the statement; and finally 9.9% of them do not agree at all with this statement, which indicates a total of 29.1%.

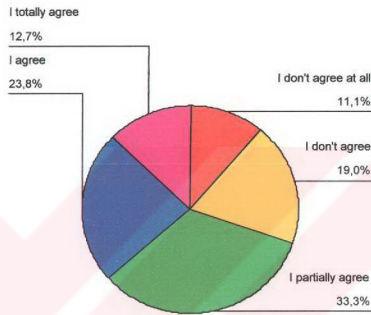


Figure-78(b): Percentages for “The prep program enabled me to improve my writing skill well enough” (Regular)

As can be seen in Figure-78(b), 12.7% of the students in the Regular groups totally agree that the prep program enabled them to improve their writing skill well enough, and 23.8% of them seem to agree with the statement at a lower level. 33.3% of the students partially agree. 19% of the students do not agree with the statement; and finally 11% of the students do not agree at all that the prep program enabled them to improve their writing skill well enough.

Table-79 presents the t-test results on the students’ attitude to the statement of “I improved myself in listening comprehension well enough at the prep program”.

Table-79

Students' Attitude to "I improved myself in listening comprehension well enough at the prep program" (*t-test*)

| GROUPS  | N   | M    | Sd    | <i>t</i> | Level of Significance |
|---------|-----|------|-------|----------|-----------------------|
| PBL     | 151 | 3.19 | 1.163 | .755     | .451                  |
| REGULAR | 63  | 3.05 | 1.337 |          |                       |

N: Number of participant groups, M: Mean, Sd: Standard deviation, *t*: *t*-test value  $p > 0.05$

The *t*-test result in Table-79 shows that there is no significant difference between the PBL and Regular groups. The students in both groups seem to agree at a similar level that they improved themselves in listening comprehension to a certain degree at the prep program.

Figure-79(a) shows the percentages of the views of the students in the PBL groups on the statement of "I improved myself in listening comprehension well enough at the prep program"; and Figure 79(b) shows the percentages of the students in Regular groups.



Figure-79(a): Percentages for "I improved myself in listening comprehension well enough at the prep program" (PBL)

As can be seen in Figure-79(a), 15.9% of the students in the PBL groups totally agree that they improved themselves in listening comprehension well enough at the prep program; and 21.9% of them seem to agree with the statement at a lower level, which together equals 37.8% and indicates a low percentage. 35.8% of the students partially agree. 17.9% of the students do not agree with the statement; and finally 8.6% of them do not agree at all with this statement, which indicates a total of 26.5% as a total.



Figure-79(b): Percentages for “I improved myself in listening comprehension well enough at the prep program” (Regular)

As can be seen in Figure-79(b), 17.5% of the students in the Regular groups totally agree that they improved themselves in listening comprehension well enough at the prep program, and 22.2% of them seem to agree with the statement at a lower level. 23.8% of the students partially agree. 20.6% of the students do not agree with the statement; and finally 15.9% of the students do not agree at all that they improved themselves in listening comprehension well enough at the prep program.



In conclusion, based on the t-test results and the percentages, the following comments can be made in relation to the students' assessment of the prep program they had attended:

1. The students in both groups almost equally agree that the grammar knowledge they gained at the prep program formed a good level for their studies. An important majority of the students in the PBL groups (44.4%) seem to have a positive view on the knowledge of grammar they gained at the prep program. Similarly, the two groups did not differ from each other with respect to the difficulty in using English grammar. 52.4% of the students in the PBL groups report that they still have difficulty in using English grammar; and 29% of the students are in partial agreement.

2. Both PBL and Regular groups seem to agree that they tend to think in Turkish while using English orally at a similar level. 66.9% of the students in the PBL groups report that they tend to think in Turkish while using English orally; and 27.2% of them are in partial agreement. It can be said that the percentage of the students who tend to think in Turkish while using English orally is quite high in the PBL groups.

3. The students in both groups seem to report at a similar level that they learned English well enough at the prep program to be able to speak. 47% of the students in the PBL groups reported positively; and 26.5% of them were in partial agreement.

4. The students in the PBL groups seem to agree that they improved their vocabulary well enough to adapt to problem-based learning, and in this sense there is a significant difference at the  $p < 0.05$  level between the two groups; however the PBL group did not score a very high mean score ( $M=3.05$ ). 35.7% of the students in the PBL groups reported a positive view; and 31.8% of them were in partial agreement. Almost 1/3 of the student population (32.5%) reported a negative view.

5. No significant difference was found between the PBL and Regular groups regarding whether they benefited a lot from the reading activities at the prep program. The students in both groups seem to agree on the degree they benefited from the reading activities. 33.8% of the students in the PBL groups reported a positive view; and 29.8% of them were in partial agreement. 36.5% of the students expressed a negative view. In spite of this, the students in the PBL groups reported that they had less difficulty in reading comprehension after the prep program ( $p=.022$ ). 43% of the students in the PBL groups reported a positive view; and 30.5% of them were in partial agreement. About  $\frac{1}{4}$  of the students (26.4%) expressed a negative view.

6. The students in the PBL groups seem to have gained a better pronunciation at the prep program compared with the Regular group ( $p=.020$ ). 39% of the students in the PBL groups reported a positive view; and 30.5% of them were in partial agreement. 30.5%, which is one-third of the students population, expressed a negative view.

7. The students in both groups seem to report that at times they are not certain they pronounce the word accurately. 41.7% of the students in the PBL groups reported a positive view; and 34.4% reported a partial view. The percentage of those who had no trouble in accurate pronunciation of words is 23.9%.

8. The students in both groups report at a similar level that they still have trouble in expressing their ideas orally. In this sense, no significant difference was found between the PBL and Regular groups. 47.6% of the students in the PBL groups reported a positive view; and 30.5% reported a partial view. 21.9% of the students seem to have no trouble in expressing their ideas orally.

Similarly, the students in both groups report at a similar level that they have difficulty in participating in oral discussions. No significant difference was found between the PBL and Regular groups. 45.7% of the students in the PBL groups reported that they had difficulty in participating in oral discussions; and 26.5%

reported a partial view. 27.8% of the students reported that they had no difficulty in participating in oral discussions. The mean score for the PBL groups is lower than that of the Regular group with respect to “expressing ideas orally” and “participating oral discussions”, and this may be due to the fact that problem-based learning sessions require students to express their ideas orally and naturally participate in oral discussions in PBL sessions.

9. The students in both groups seem to agree at a similar level that the prep program enabled them to improve their writing skill to a certain degree. Only 37% of the students reported a positive view; and 33.8% of them were in partial agreement. 29% of the student population expressed a negative view, which makes up one-third of them.

10. Finally, the students in both groups seem to agree at a similar level that they improved themselves in listening comprehension to a certain degree at the prep program. In this sense, no significant difference was found between the groups. 37.8% of the students in the PBL groups reported a positive view; and 35.8% of them were in partial agreement. 26.5% of the student population expressed a negative view on this aspect of the prep program.

## CHAPTER V

### CONCLUSION

In this study, we have tried to identify the language needs of students in an English-medium higher education institution employing the problem-based learning (PBL) as a method of learning and find out whether there are any significant differences between the language needs of the students in PBL groups and those of the students in the Regular groups who are receiving their training in the traditional method. A secondary purpose of this study was to assess the English preparatory program, which those students had previously attended, based on the needs they reflected, and finally to make suggestions for curriculum development and change in the light of the needs expressed by the students in a problem-based learning setting.

#### 5.1 Summary of the Study

To carry out this research study, The School of Maritime Business and Management, which is an English-medium school at Dokuz Eylül University, Izmir, was selected in particular as problem-based learning (PBL) is commonly applied at this institution as a method of learning and as part of active learning. The School of Maritime Business and Management, DEU, consists of two departments. These departments are Department of Maritime Business Administration and Department of Deck. The data gathering process was limited to 1<sup>st</sup> and 2<sup>nd</sup> class students who receive their training in problem-based learning in both departments in comparison with the language needs of the 3<sup>rd</sup> and 4<sup>th</sup> year students in the same departments, who receive their training in the traditional method. 178 students formed the PBL groups and 117 students formed the Regular groups.

The data to this study were gathered through a questionnaire which was prepared by the researcher himself. The questionnaire was applied in Turkish in order to enable the students to understand without any difficulty. Two versions of the questionnaire were prepared: one to be given to the PBL groups, and one to be

given to the Regular groups. The questionnaire is made up of eleven sections, each of which deals with a different aspect of language skills and needs.

SPSS 11.0 software program was run to calculate the alpha reliability coefficient value for the questionnaire; and alpha was calculated as **.9654** for a randomly-selected group including 20 subjects; and depending on this level of reliability, the questionnaire was administered to all the students at The School of Maritime Business and Management in Spring Term towards the end of the 2003-2004 Academic Year. Two coordinators at the School of Maritime Business and Management, each representing one department, agreed to be the contact person for the administration of the questionnaire to their students. After the questionnaire was administered to the whole population of the school, one hundred and thirty questionnaire answer sheets representing the students, who previously attended the English preparatory program at The School of Foreign Languages, DEU, were separated and evaluated by the optic reader. After that, the letter values (a, b, c, d, e) were converted to numeric values in Excel software in order to be transferred to the SPSS software for the recalculation of the alpha reliability coefficient. In the retest of the alpha, the reliability coefficient was calculated as **.9948**, which shows that the reliability of the questionnaire is at a high level. Besides, during the preparation stage, some experts in the field of language teaching, education and statistics were consulted for their views of the questionnaire as a whole as part of the validity study, and their views were reflected into the content of the questionnaire.

## **5.2 Discussion of the Results**

The first section of the questionnaire was mainly concerned with how frequently the students are expected to use the macro language skills in their studies. Based on the results, the PBL groups seem to use the reading skill much more frequently than the Regular groups ( $p=.001$ ), but the Regular groups also report that they use the reading skill very often as part of their studies. As for the speaking skill, the PBL groups seem to make a highly significant difference in the frequency of use of this skill as a productive skill ( $p=.000$ ). However, as for the writing skill as

another productive skill, the same is true of the Regular groups ( $p=.000$ ). Finally, as far as listening comprehension is concerned, the PBL groups seem to use it far more frequently than the Regular groups do ( $p=.002$ ). The results showed that the students tend to use the reading skill (93.3%), speaking skill (82%) and listening comprehension (87.7%) far more frequently than those in the Regular groups do. It seems that the students in the PBL groups report a much lower level of frequency of use for the writing skill (41%) than the students in the Regular groups do. The t-test results and the percentages reported by the students in the PBL groups indicate that reading, speaking and listening comprehension skills should be given more importance in the design of a language course, and the writing skill should be considered as a supporting skill in an integrated fashion.

The second section of the questionnaire aimed at finding out the frequency of difficulty the students have in the use of each language skill. The results show that neither the PBL nor Regular groups differ from each other with respect to the frequency of difficulty in the use of the major language skills.

First, only 4.5% of the students reported that they were 'very often' having difficulty and 15.2% 'often', which makes up approximately 20% of the student population, that is to say, one-fifth of the students seems to have difficulty in the reading skill as part of PBL sessions. The percentage of the ones who said that they were 'sometimes' having difficulty turned out to be 34.8%, and 40% of the students reported a 'rare' frequency of difficulty in this skill. In addition, only 5% of the students reported that they were having no difficulty in the reading skill.

Secondly, as regards the speaking skill, only nearly 8% of the students in the PBL groups reported that they were 'very often' having difficulty, and 25.8% said that they were 'often' having difficulty, which accounts for 33.8% as a total. 38.2% of them reported that they were 'sometimes' having difficulty. The percentage of the ones who said that they were 'rarely' having difficulty in the speaking skill turned out to be 24.2%, and the percentage of the ones who were 'never' having difficulty remained at 3.9%, which can be interpreted as a very striking result. These

percentages show that problem-based learning brings about a high demand on the students for the use of the speaking skill, and it can be said that this stems from the fact that PBL sessions are primarily based on the use of English.

Thirdly, as for listening comprehension, a total of **25.8%** of the students in the PBL groups reported frequent difficulty in listening comprehension. 32.6% of the students said that they are sometimes having difficulty in this skill, and similarly, another 32.6% of the students reported a rare level of difficulty for this skill. Only 9% of the student population in the PBL groups report that they are never having any trouble in listening comprehension.

Lastly, as for the writing skill, a total of nearly **17%** of the students in the PBL groups reported frequent difficulty. And 36% of the students report that they sometimes have trouble in this skill. Another 36% of the students report that they rarely have difficulty in this skill.

All in all, it seems that the students in the PBL groups have the most difficulty in the speaking skill; in other words, in the use of English as part of the PBL sessions, and listening comprehension. Based on this result, it could be said that speaking skill and use of English should be given more importance in the design of the language program, and in addition to this, listening comprehension activities should be used to give support to the development of this skill. Similarly, some conversation activities should be capitalized on listening comprehension activities. To put it another way, there should be more practice and production rather than presentation.

The third section of the questionnaire focused on identifying students' attitude to the level of necessity for each major language skill to achieve success in their fields of study. Based on the results, the PBL groups seem to feel greater necessity for the reading skill ( $p=.015$ ), speaking skill ( $p=.000$ ), and listening comprehension ( $p=.000$ ) than the Regular groups do. It seems that the students in the PBL groups reported very high percentages for 'very necessary' and 'quite

necessary' categories on the 1-5 scale. The total percentages for these two categories turned out to be **89.3%** for the reading skill, **84.3%** for the speaking skill, and **87%** for listening comprehension. As far as the writing skill is concerned, there seems to be no significant difference between the two groups; however, a quite high percentage (**61.8% very necessary and quite necessary, 25.8% necessary**) of the students in the PBL groups report that the writing skill is also necessary for success in their field of study. These results indicate that development of each language skill is important and this should be realized with a sensible integration of the four major language skills.

The fourth section of the questionnaire looked at how important each language skill is for the students in the PBL groups as part of their problem-based learning sessions, comparing with the attitude of the students in the Regular groups as part of their classes. Similar to the results of the third section of the questionnaire, the students in the PBL groups consider that reading skill ( $p=.000$ ), speaking skill ( $p=.000$ ) and listening comprehension ( $p=.000$ ) have great importance for them as part of the PBL sessions whereas the students in the Regular groups differ from the students in PBL groups only when the importance given to the writing skill is concerned ( $p=.000$ ). It seems that the students in the PBL groups reported very high percentages for 'very important' and 'quite important' categories on the 1-5 scale. The total percentages for these two categories only turned out to be **84.3%** for the reading skill, **87.7%** for the speaking skill, and **79.2%** for listening comprehension. As far as the writing skill is concerned, only **31.5%** of the students reported that this skill is highly important for them. These results indicate that reading skill, speaking skill and listening comprehension are highly important for the students in the PBL groups as part of PBL sessions.

The fifth section of the questionnaire aimed to find out the students' general attitude to the importance of language skills with respect to achievement of success in their future career. The students in both PBL and Regular groups perceive each language skill as 'very important' as far as achievement of success in a future career is concerned. The only difference between the two groups was found in their attitude



to the writing skill. The students in the Regular groups seem to give more importance to this skill than the PBL groups do. In spite of the fact that the students in the PBL groups give less importance to the writing skill in problem-based learning sessions, it can be claimed that this skill still remains as an important skill for them in order to achieve success in their future career. It seems that the students in the PBL groups reported very high percentages for 'very important' and 'quite important' categories on the 1-5 scale in this section. The total percentages for these two categories only turned out to be **91.6%** for the reading skill, **91.6%** for the speaking skill, **88.8%** for listening comprehension, and **76.4%** for the writing skill. These results also support the view that integration of language skills should be of prime importance in the design of a language program.

The sixth section of the questionnaire investigated, in particular, the attitudes of the students in the PBL and Regular groups to the specific sub-speaking skills with respect to the use of English. The sub-speaking skills reported by the students in the PBL groups as more important in contrast to those reported by the Regular groups are:

- participating in and leading oral discussions in English with other members in problem-based learning sessions,
- being effective in activities that require class participation in English,
- saying things in the most accurate way without making pronunciation mistakes while using English orally, and
- saying things in the most accurate way

In addition to these sub-skills listed above, three other skills that are found relatively important by the students in the PBL groups are:

- being able to say what I want to say quickly enough
- being able to select the right word(s) while expressing an idea on a subject, and
- being able to express myself even if I make grammar mistakes

The sub-speaking skills that are found the least important by the students in the PBL groups are:

- being able to form interrogative sentences accurately,
- being able to make accurate sentences in line with grammar rules, and
- being able to make complex sentences

These sub-speaking skills should be taken into consideration during the process of syllabus design so that learners can benefit from the class activities at the highest level.

The seventh section of the questionnaire was concerned with the attitudes of the students in the PBL and Regular groups to the specific sub-reading skills. No significant difference was found between the attitudes of the two groups. This shows that the students in both groups have similar attitudes to the reading skills as part of their studies. On the other hand, the following list presents the reading skills which the students in the PBL groups find important with respect to the mean scores and the percentages for 'very important' and 'quite important' categories on the 1-5 scale. The skills were ranked from the highest value to the lowest:

1. understanding the main points of a text (M=4.44 / 87.1%)
2. finding the main idea of a text (M=4.38 / 85.4%)
3. making inferences from a text (M= 4.19 / 76.9%)
4. understanding the general structure of a text (M= 4.12 / 75.2%)
5. being able to express ideas both orally and written based on what I read (M= 4.11 / 74.1%)
6. guessing the meanings of new vocabulary within the context (M= 4.08 / 71.4%)
7. scanning a text rapidly to find the information I look for (M=3.92 / 69.7%)
8. identifying different views in a text (M= 3.89 / 68%)
9. improving vocabulary by learning new words in a text (M= 3.87 / 64.6%)
10. using a dictionary effectively to find meanings of only key vocabulary (M= 3.80 / 59.6%)

These specific reading skills should be considered in the design of a reading program at the prep program as well as in the selection of a course book and materials for reading.

The eighth section of the questionnaire dealt with the attitudes of the students in the PBL and Regular groups to the specific writing skills. As the t-test results indicated, the PBL and Regular groups did not differ much in their attitudes towards specific writing skills. In this sense, no significant difference was found between the groups. Rather, they presented similar levels of importance for each skill. In addition, the percentages indicated that the students in both groups reported very similar and sometimes very close levels of importance for each skill. Writing a curriculum vitae (M: 4.17) and writing a letter of application (M: 4.06) were given the highest score by the students in both groups, and this shows that they have concerns about finding jobs after their graduation and they consider that these two are the most important writing skills for them in a job application process. The following list shows the writing skills that the students in the PBL groups found important. The skills were ranked according to the mean scores and the total percentages for 'very important' and 'quite important' categories from the highest value to the lowest:

1. Writing a curriculum vitae (M: 4.17 / 76.4%)
2. Writing a letter of application (M: 4.06 / 71.4%)
3. Writing my ideas clearly (M: 3.76 / 61.2%)
4. Writing an informative type of essay (M: 3.74 / 60.7%)
5. Writing an academic assignment in an order (M: 3.63 / 59.6%)
6. Correct word order (M: 3.58 / 55.6%)
7. Writing about the steps of a process (M: 3.47 / 55.5%)
8. Writing an article about a research project and its results (M: 3.54 / 55.1)
9. Writing a summary of what I've read (M: 3.54 / 54.5%)
10. Writing a 'cause-effect' type of essay (M: 3.47 / 53.5%)
11. Using the right /correct vocabulary (M: 3.59 / 50.3%)
12. Using conjunctions correctly and in the right place (M: 3.44 / 47.8%)
13. Writing an argumentative type of essay (M: 3.37 / 46.1%)
14. Writing a paragraph in an order (M: 3.33 / 43.3%)

These writing skills should be taken into consideration in the design of a writing program at the prep program as well as in the selection of a course book and materials for writing purposes.

The ninth section of the questionnaire aimed to find out the attitudes of the students in the PBL and Regular groups to the specific listening comprehension skills. Based on the results, the students in the PBL groups consider that ‘understanding the presentations and taking notes effectively’ ( $p=.001$ ), ‘understanding the oral instructions given during presentations’ ( $P=.000$ ), and ‘understanding the vocabulary in presentations’ ( $p=.020$ ) are important skills as part of problem-based learning sessions.

The tenth section of the questionnaire focused on the students’ attitudes to the use of English in problem-based learning. Based on the t-test results and percentages, it seems that PBL groups differ from the Regular groups in their attitudes with respect to the use of English in this method of learning and as part of PBL sessions. First of all, the results indicate that problem-based learning requires a good level of English ( $p=.001$ ) and using each language skill very well ( $p=.000$ ). Secondly, the students in the PBL groups also stress that the writing skill is not emphasized much in problem-based learning ( $p=.000$ ) and the exams they are given do not require a very good command of the writing skill ( $p=.000$ ). Thirdly, the students believe that problem-based learning requires knowledge of technical terminology in the first year ( $p=.008$ ), and that PBL sessions require the students to read various sources in their field of study ( $p=.006$ ). Another important fact to be stressed is that the students in the PBL groups believe that problem-based learning sessions require oral use of English without much emphasis on accuracy ( $p=.000$ ) and fluent use of English ( $p=.002$ ). Finally, the students also strongly believe that problem-based learning sessions require them to understand what’s being discussed ( $p=.000$ ) as part of PBL sessions. These results should be taken into consideration in designing a syllabus and in the process of curriculum development.

Finally, the eleventh and the last part of the questionnaire focused on students’ assessment of the English preparatory program which the students had previously attended and specifically aimed at highlighting the views of the students in problem-based learning on various aspects of the prep program they had attended, and provide an assessment of the prep program in general. Based on the t-test

results and the percentages, the following comments can be made in relation to the students' assessment of the prep program they had attended:

1. The students in both groups almost equally agree that the grammar knowledge they gained at the prep program formed a good level for their studies. An important majority of the students in the PBL groups (44.4%) seem to have a positive view on the knowledge of grammar they gained at the prep program.

2. Similarly, the two groups did not differ from each other with respect to the difficulty in using English grammar. 52.4% of the students in the PBL groups report that they still have difficulty in using English grammar; and 29% of the students are in partial agreement. It seems that the percentage of the students who do not have difficulty in using English grammar is quite low, and that using English grammar is essential for them. This indicates that grammar practice activities that aim at using English grammar need to be given more importance as part of prep program.

3. Both PBL and Regular groups seem to agree at a similar level that they tend to think in Turkish while using English orally. 66.9% of the students in the PBL groups report that they tend to think in Turkish while using English orally; and 27.2% of them are in partial agreement. It can be said that the percentage of the students who tend to think in Turkish while using English orally is quite high in the PBL groups, and similarly, the percentage of those who do not tend to think in Turkish while using English grammar seems to be very low(6%). Based on this result, it can be said that class activities should be built on not only using English, but also thinking in that language.

4. The students in both groups seem to report at a similar level that they learned English well enough at the prep program to be able to speak. 47% of the students in the PBL groups reported positively; and 26.5% of them were in partial agreement. On the other hand, 26.4% of the students in the PBL groups reported that they did not learn English well enough at the prep program to be able to speak. Based on

these percentages, it could be suggested that class activities should focus on more speaking and use of English.

5. The students in the PBL groups seem to agree that they improved their vocabulary well enough to adapt to problem-based learning, and in this sense, there is a significant difference between the two groups at the  $p < 0.05$  level; however, the PBL group did not score a very high mean score ( $M = 3.05$ ). 35.7% of the students in the PBL groups reported a positive view; and 31.8% of them were in partial agreement. Almost one-third of the student population (32.5%) reported a negative view. Based on the t-test result and percentages for the PBL groups, it can be suggested that vocabulary learning should be made more challenging and be given more importance as part of the prep program so that students can benefit more.

6. No significant difference was found between the PBL and Regular groups regarding whether they benefited a lot from the reading activities at the prep program. The students in both groups seem to agree on the degree they benefited from the reading activities. 33.8% of the students in the PBL groups reported a positive view; and 29.8% of them were in partial agreement. 36.5% of the students expressed a negative view. In spite of this, the students in the PBL groups reported that they had less difficulty in reading comprehension after the prep program ( $p = .022$ ). 43% of the students in the PBL groups reported a positive view; and 30.5% of them were in partial agreement. About one-fourth of the students (26.4%) expressed a negative view. The t-test results and percentages indicate that reading, as a skill, should be given more importance and be made more challenging within the prep program.

7. The students in the PBL groups seem to have gained a better pronunciation at the prep program in comparison with the Regular group ( $p = .020$ ). 39% of the students in the PBL groups reported a positive view; and 30.5% of them were in partial agreement. 30.5%, which is one-third of the students population, expressed a negative view. Also, the students in both groups seem to report that at times they are not certain they pronounce the words accurately. 41.7% of the students in the PBL

groups reported a positive view; and 34.4% of them reported a partial view. The percentage of those who have no trouble in accurate pronunciation is 23.9%. The t-test results and percentages show that a good command of pronunciation is essential for the students in problem-based learning. In this sense, more importance should be given to pronunciation tasks as part of prep program.

8. The students in both groups report at a similar level that they still have trouble in expressing their ideas orally. No significant difference was found between the PBL and Regular groups in this sense. 47.6% of the students in the PBL groups reported a positive view; and 30.5% reported a partial view. 21.9% of the students seem to have no trouble in expressing their ideas orally. Based on the percentages, an important majority of the students in the PBL groups seems to have trouble in expressing their ideas orally; therefore, this should be taken into account in the design of the prep program. In other words, class activities should be built on tasks in which learners can express their ideas orally.

9. Similarly, the students in both groups report at a similar level that they have difficulty in participating in oral discussions. No significant difference was found between the PBL and Regular groups. 45.7% of the students in the PBL groups reported that they had difficulty in participating in oral discussions; and 26.5% reported a partial view. 27.8% of the students reported that they had no difficulty in participating in oral discussions. The mean score for the PBL groups is lower than that of the Regular group with respect to “expressing ideas orally” and “participating in oral discussions”, and this may be due to the fact that problem-based learning sessions require students to express their ideas orally and naturally participate in oral discussions in PBL sessions. It can be suggested that class activities in the prep program should include discussion activities in which learners could participate orally in order to use the language.

10. The students in both groups seem to agree at a similar level that the prep program enabled them to improve their writing skill to a certain degree. Only 37% of the students reported a positive view; and 33.8% of them were in partial agreement.

29% of the student population expressed a negative view, which makes up one-third of them. It can be suggested that by focusing on the development of specific writing skills, the writing program could be made more effective.

11. Finally, the students in both groups seem to agree at a similar level that they improved themselves in listening comprehension to a certain degree at the prep program. In this sense, no significant difference was found between the groups. 37.8% of the students in the PBL groups reported a positive view; and 35.8% of them were in partial agreement. 26.5% of the student population expressed a negative view on this aspect of the prep program. Based on these percentages, it can be suggested that listening comprehension should be given more importance as part of class activities in the prep program.

### **5.3 Suggestions for Curriculum Development & Change**

1. In the design of the prep-program curriculum, reading, speaking and listening comprehension skills should be given more importance. The writing skill should be integrated to these skills in a way that the students can use the language they learn more effectively.
2. As the students report that they have the most difficulty in the speaking skill and listening comprehension, the number of hours that are allotted to these classes should be increased. Besides, a course in order to have the students deal with the use of English can be introduced to the program.
3. Although the students reported a lower level of necessity for the writing skill to achieve success in their fields of study in comparison with the other skills, it seems that they still find this skill necessary, so development of each major skill in an integrated fashion should be a primary goal.
4. As part of the PBL sessions, the students consider that speaking, listening comprehension and reading skills are highly important for them; thus, effective development of these skills is essential. The course books should be selected in a



way that the skills can be integrated practically. In this way, language instructors can be coordinated more effectively. The students should also be guided on how they can develop themselves in these skills individually.

5. Speaking activities should be organized in such a way that the students can participate in and lead oral discussions in English with the other members of their groups; in this way, they can be efficient in activities that require individual participation. Besides, saying things in the most accurate way with a good command of pronunciation and getting the students to use English orally should be general goals. In addition, getting the students to try to say things quickly enough, selecting the right words when they speak, and getting the habit of expressing themselves even if they make grammar mistakes should be given more importance for the development of the speaking skill.
6. Which particular reading skills the students are preferably required to use as part of the reading course should be taken into consideration, and in this sense, practising the use of specific reading skills should be stressed as part of the reading activities. Course materials and books should be selected based on the level of importance and frequency of use of particular reading skills by the students. The findings derived from this study could be used as data base for selecting the course materials and developing the reading program. Understanding the main points of a text, finding the main idea of a text, making inferences from a text, understanding the general structure of a text, being able to express ideas both orally and written based on what students read, and guessing the meanings of new vocabulary within the context are the reading skills that problem-based learning groups stressed as more important in this study.
7. As for the writing skill, a balanced and sensible integration of this skill with the other major skills is suggested so that the students can benefit from this skill at the highest level. Another advantage of this will be that the instructors will be able to observe the positive reflections from the other skills into the students' development in the writing skill. The writing course should not cover all skills and activities. In contrast, more specific writing skills could be focused on so as to

enhance the effectiveness of the writing program. The ranking of the specific writing skills derived from this study could be used in the design of the writing program as well as in the selection of writing materials. For instance, as a striking result from this study, students should be guided on writing a curriculum vitae (CV) and writing a letter of application as part of the prep program.

8. This study indicated that the students value listening comprehension, so the development of this receptive skill need to be dealt with special care and more importance should be given to the listening activities within the general content of the prep program. In this sense, as listening activities, understanding a presentation and taking effective notes and understanding vocabulary in a presentation should be a part of classroom activities within the prep program. By using various sources and materials, the students can benefit from listening comprehension tasks.
9. Enabling the students to reach a very good level of English and use each language skill as well as possible must be one of the most important goals of the prep program.
10. The students who will continue their studies in problem-based learning must be introduced to some technical terminology in relation to their field of study. If this is not possible as part of the prep program, the students should be given various reading tasks to bridge this gap and develop their vocabulary.
11. Classroom activities should be built on an abundant oral use of English without much emphasis on accuracy. Rather, the focus of classroom activities must be on the fluent use of the language. Hence, the students should be expected to use the language in discussions. To be able to realize this, group and pair work should be encouraged.
12. A good knowledge of English grammar and using it effectively seem to be essential for the students in the PBL groups; therefore, enabling the students to

reach a high level of English grammar and use their knowledge of grammar effectively must be one of the goals of the prep program.

13. Thinking in Turkish while using English orally seems to be a problem for the students in the PBL groups, so class activities should be organized in a way that the students can overcome this problem easily.
14. Based on the findings derived from this study, the students in the PBL groups seem to value a good level of vocabulary, so enabling the students to improve their vocabulary should be an important goal, and vocabulary learning should be made more challenging. The reading course and extensive reading tasks should involve various vocabulary activities.
15. It seems that expressing ideas orally is perceived as an important skill by the students; hence, organizing such classroom activities in which the students could get the opportunity to use the language actively is essential.
16. Finally, the academic skills that the students in problem-based learning would primarily need should be taken into consideration in the overall design of the curriculum and be given the priority.

#### **5.4 Suggestion for Further Research**

This study primarily aimed at identifying the language needs of the students in a problem-based learning setting and evaluating a prep program based on these needs. A future research can be carried out by researchers in order to identify the language problems and difficulties the students usually encounter as part of the problem-based learning sessions through observation and recording students' actual performance.

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**A) Probleme Dayalı Öğrenme (PDÖ) Yönteminde Gereklinim Duyulan İngilizce Dil Becerileri**

**A1. Sizden İngilizce dil becerilerini ne kadar sık kullanmanız bekleniyor?**

|     | <i>İngilizce Dil Becerileri</i><br>↓ | Çok sık<br>(5) | Sık<br>(4) | Bazen<br>(3) | Nadiren<br>(2) | Hiç<br>(1) |
|-----|--------------------------------------|----------------|------------|--------------|----------------|------------|
| 7.  | Okuduğunu anlama                     | a              | b          | c            | d              | e          |
| 8.  | Konuşma                              | a              | b          | c            | d              | e          |
| 9.  | Yazma                                | a              | b          | c            | d              | e          |
| 10. | Duyduğunu anlama                     | a              | b          | c            | d              | e          |

**A2. Size göre, İngilizce dil becerilerinin kullanımında ne sıklıkta güçlük çekiyorsunuz?**

|     | <i>İngilizce Dil Becerileri</i><br>↓ | Çok sık<br>(5) | Sık<br>(4) | Bazen<br>(3) | Nadiren<br>(2) | Hiç<br>(1) |
|-----|--------------------------------------|----------------|------------|--------------|----------------|------------|
| 11. | Okuduğunu anlama                     | a              | b          | c            | d              | e          |
| 12. | Konuşma                              | a              | b          | c            | d              | e          |
| 13. | Yazma                                | a              | b          | c            | d              | e          |
| 14. | Duyduğunu anlama                     | a              | b          | c            | d              | e          |

**A3. Size göre İngilizce dil becerileri, şu an devam ettiğiniz programın genelinde başarılı olmanız açısından ne kadar gereklidir?**

|     | <i>İngilizce Dil Becerileri</i><br>↓ | Çok gerekli<br>(5) | Oldukça gerekli<br>(4) | Gerekli<br>(3) | Az gerekli<br>(2) | Gerekli değil<br>(1) |
|-----|--------------------------------------|--------------------|------------------------|----------------|-------------------|----------------------|
| 15. | Okuduğunu anlama                     | a                  | b                      | c              | d                 | e                    |
| 16. | Konuşma                              | a                  | b                      | c              | d                 | e                    |
| 17. | Yazma                                | a                  | b                      | c              | d                 | e                    |
| 18. | Duyduğunu anlama                     | a                  | b                      | c              | d                 | e                    |



**A4. Size göre, probleme dayalı öğrenme (PDÖ) oturumlarında, İngilizce dil becerileri ne kadar önemlidir?**

|     | <i>İngilizce Dil Becerileri</i><br>↓ | Çok önemli<br>(5) | Oldukça önemli<br>(4) | Önemli<br>(3) | Az önemli<br>(2) | Önemli değil<br>(1) |
|-----|--------------------------------------|-------------------|-----------------------|---------------|------------------|---------------------|
| 19. | Okuduğunu anlama                     | a                 | b                     | c             | d                | e                   |
| 20. | Konuşma                              | a                 | b                     | c             | d                | e                   |
| 21. | Yazma                                | a                 | b                     | c             | d                | e                   |
| 22. | Duyduğunu anlama                     | a                 | b                     | c             | d                | e                   |

**A5. Size göre, çalışma hayatınızda başarılı olmanız açısından, İngilizce dil becerileri ne kadar önemlidir?**

|     | <i>İngilizce Dil Becerileri</i><br>↓ | Çok önemli<br>(5) | Oldukça önemli<br>(4) | Önemli<br>(3) | Az önemli<br>(2) | Önemli değil<br>(1) |
|-----|--------------------------------------|-------------------|-----------------------|---------------|------------------|---------------------|
| 23. | Okuduğunu anlama                     | a                 | b                     | c             | d                | e                   |
| 24. | Konuşma                              | a                 | b                     | c             | d                | e                   |
| 25. | Yazma                                | a                 | b                     | c             | d                | e                   |
| 26. | Duyduğunu anlama                     | a                 | b                     | c             | d                | e                   |

**A6. Size göre, aşağıda belirtilen İngilizce'nin kullanımı ve konuşma becerileri, Probleme Dayalı Öğrenme oturumlarında, ne kadar önemlidir?**

|     | <i>İngilizce'nin kullanımı<br/>ve<br/>konuşma becerileri</i><br>↓   | Çok<br>önemli<br>(5) | Oldukça<br>önemli<br>(4) | Önemli<br>(3) | Az<br>önemli<br>(2) | Önemli<br>değil<br>(1) |
|-----|---|----------------------|--------------------------|---------------|---------------------|------------------------|
| 27. | PDÖ oturumlarında , katılımcılarla İngilizce sözlü tartışmalara girebilme ve tartışmaları yönlendirebilme | a                    | b                        | c             | d                   | e                      |
| 28. | Sınıf katılımı gerektiren çalışmalarda İngilizce'yi kullanarak etkili olabilme                            | a                    | b                        | c             | d                   | e                      |
| 29. | Söylemek istediğimi yeteri kadar çabuk söyleyebilme   | a                    | b                        | c             | d                   | e                      |
| 30. | İngilizce'yi sözlü olarak kullanırken telaffuz hatası yapmadan bir şeyleri doğru söyleyebilme             | a                    | b                        | c             | d                   | e                      |
| 31. | Dilbilgisi (gramer) hataları yapsam bile kendimi ifade edebilme   | a                    | b                        | c             | d                   | e                      |
| 32. | Dilbilgisi (gramer) kurallarına göre doğru İngilizce tümceler kurabilme                                   | a                    | b                        | c             | d                   | e                      |
| 33. | Karmaşık /komplike tümceler kurabilme   | a                    | b                        | c             | d                   | e                      |
| 34. | İngilizce soru tümcelerini doğru kurabilme  | a                    | b                        | c             | d                   | e                      |
| 35. | Bir şeyi en doğru şekliyle söyleyebilme   | a                    | b                        | c             | d                   | e                      |
| 36. | Bir konuda düşüncemi ifade ederken doğru sözcüğü seçebilme  | a                    | b                        | c             | d                   | e                      |

### A7. İngilizce Okuma Becerileri

**Size göre, İngilizce okuma becerileri, probleme dayalı öğrenme (PDÖ) oturumlarında ve sonrasında, ne kadar önemlidir?**

|     | <i>İngilizce okuma becerileri</i><br>↓   | Çok önemli (5) | Oldukça önemli (4) | Önemli (3) | Az önemli (2) | Önemli değil (1) |
|-----|--|----------------|--------------------|------------|---------------|------------------|
| 37. | Okuduğum parçanın ana noktalarını anlayabilme  | a              | b                  | c          | d             | e                |
| 38. | Okuduğum parçanın ana fikrini anlayabilme  | a              | b                  | c          | d             | e                |
| 39. | Parçanın içeriği konusunda fikir sahibi olmak için hızlı okuyabilme  | a              | b                  | c          | d             | e                |
| 40. | Aradığım bilgiyi bulmak için parçayı hızlı bir şekilde tarayabilme   | a              | b                  | c          | d             | e                |
| 41. | Bilmediğim yeni sözcüklerin anlamlarını olabildiğince parça içinde tahmin edebilme   | a              | b                  | c          | d             | e                |
| 42. | Bir parçanın genel yapısını anlayabilme<br>( <i>Örneğin: iki değişik ekonomik sistemi karşılaştırma, neden-sonuç ilişkisi, problem-çözüm ilişkisi gibi</i> ) | a              | b                  | c          | d             | e                |
| 43. | Sadece kritik/anahtar sözcüklere yönelik olarak etkin bir biçimde sözlük kullanabilme  | a              | b                  | c          | d             | e                |
| 44. | Yazarın bir parçayı yazma amacını anlayabilme  | a              | b                  | c          | d             | e                |
| 45. | Bir parçayı okurken yeni sözcükler öğrenerek sözcük dağarcığımı geliştirebilme   | a              | b                  | c          | d             | e                |
| 46. | Okuduğum parçadan sonuç çıkarabilme  | a              | b                  | c          | d             | e                |
| 47. | Okuduklarıma dayalı olarak kendi fikirlerimi hem sözlü, hem de yazılı olarak ifade edebilme  | a              | b                  | c          | d             | e                |
| 48. | Parça içindeki değişik görüşleri saptayabilme  | a              | b                  | c          | d             | e                |

### A8. İngilizce Yazma Becerileri

Size göre, İngilizce yazma becerileri, probleme dayalı öğrenme (PDÖ) yönteminde ne kadar önemlidir?

|     | <i>İngilizce yazma becerileri</i><br>↓  | Çok önemli<br>(5) | Oldukça önemli<br>(4) | Önemli<br>(3) | Az önemli<br>(2) | Önemli değil<br>(1) |
|-----|---|-------------------|-----------------------|---------------|------------------|---------------------|
| 49. | Doğru sözcüğü kullanabilme  | a                 | b                     | c             | d                | e                   |
| 50. | Bir düzen içersinde paragraf yazabilme  | a                 | b                     | c             | d                | e                   |
| 51. | Bir ödevi bir düzen içersinde yazabilme   | a                 | b                     | c             | d                | e                   |
| 52. | Fikirlerimi yazılı olarak açık bir biçimde ifade edebilme   | a                 | b                     | c             | d                | e                   |
| 53. | Bağlaçları doğru ve yerinde kullanabilme<br>(Örnek: even though, therefore, whereas, consequently, vb.) | a                 | b                     | c             | d                | e                   |
| 54. | Sözcükleri doğru bir biçimde sıralayabilme  | a                 | b                     | c             | d                | e                   |
| 55. | Okuduğum parçayı yazılı olarak özetleyebilme  | a                 | b                     | c             | d                | e                   |
| 56. | Bir konuyu yazılı olarak tartışabilme   | a                 | b                     | c             | d                | e                   |
| 57. | Neden-sonuç ilişkisine dayalı paragraf / kompozisyon yazabilme  | a                 | b                     | c             | d                | e                   |
| 58. | Bir sistemin nasıl çalıştığını ya da bir işlemin basamaklarını yazılı olarak ifade edebilme             | a                 | b                     | c             | d                | e                   |
| 59. | Bir konu hakkında bilgi verme   | a                 | b                     | c             | d                | e                   |
| 60. | Bir araştırma ve sonuçlarına ilişkin makale yazabilme   | a                 | b                     | c             | d                | e                   |
| 61. | Bir iş için başvuru mektubu yazabilme   | a                 | b                     | c             | d                | e                   |
| 62. | Bir işe başvurmak amacıyla özgeçmiş (curriculum vitae / CV) yazabilme                                   | a                 | b                     | c             | d                | e                   |

**A9. İngilizce Dinlediğini /Duyduğunu Anlama Becerileri**

Size göre, aşağıda belirtilen İngilizce dinlediğini anlama becerileri, ne kadar önemlidir?

|     | <i>İngilizce dinlediğini anlama becerileri</i><br>↓      | Çok önemli (5) | Oldukça önemli (4) | Önemli (3) | Az önemli (2) | Önemli değil (1) |
|-----|--|----------------|--------------------|------------|---------------|------------------|
| 63. | Sunumları izlerken anlayabilme ve etkili not tutabilme   | a              | b                  | c          | d             | e                |
| 64. | Sunumlar sırasında verilen sözlü talimatları anlayabilme | a              | b                  | c          | d             | e                |
| 65. | Sunumları izlerken sözcükleri anlayabilme                | a              | b                  | c          | d             | e                |

**B) Aşağıdaki ifadeler, probleme dayalı öğrenme (PDÖ) yönteminde ve oturumlarında İngilizce kullanımına ilişkindir.**

|     | <b>Probleme dayalı öğrenmede İngilizce kullanımı</b>   | Tümüyle katılıyorum (5) | Katılıyorum (4) | Kısmen Katılıyorum (3) | Katılmıyorum (2) | Hiçbir şekilde katılmıyorum (1) |
|-----|--|-------------------------|-----------------|------------------------|------------------|---------------------------------|
| 66. | PDÖ yöntemi, çok iyi bir İngilizce düzeyi gerektiriyor.  | a                       | b               | c                      | d                | e                               |
| 67. | PDÖ yöntemi, her bir dil becerisini çok iyi bir şekilde kullanabilmeyi gerektiriyor.                                   | a                       | b               | c                      | d                | e                               |
| 68. | PDÖ yönteminde yazma becerisinin üzerinde fazla durulmuyor.  | a                       | b               | c                      | d                | e                               |
| 69. | Sınavlar, yazma becerisini kullanmamızı gerektirmiyor.   | a                       | b               | c                      | d                | e                               |
| 70. | PDÖ yöntemi, ilk başlarda bir hayli mesleki terminoloji bilmemizi gerektiriyor.  | a                       | b               | c                      | d                | e                               |
| 71. | PDÖ oturumları, dilbilgisi (gramer) hataları yapsak ta, dili sözlü olarak kullanmayı gerektiriyor.                     | a                       | b               | c                      | d                | e                               |
| 72. | PDÖ oturumlarında dili olabildiğince akıcı bir şekilde kullanabilmemiz gerekiyor.                                      | a                       | b               | c                      | d                | e                               |
| 73. | PDÖ oturumlarında, tartışılanları anlamamız gerekiyor.   | a                       | b               | c                      | d                | e                               |
| 74. | PDÖ oturumları, işlenen konu paralelinde değişik kaynaklardan yararlanarak okuma çalışmalarını yapmamızı gerektiriyor. | a                       | b               | c                      | d                | e                               |

**Anımsatma!**  
**DEÜ Yabancı Diller Yüksekokulunda İngilizce Hazırlık Eğitimi Aldıysanız**  
**Bu Bölümü Yanıtlayınız!**

**C) Aşağıda verilen durumlar doğrultusunda, daha önce İngilizce dil eğitimi aldığınız DEÜ Yabancı Diller Yüksekokulundaki hazırlık programını değerlendiriniz.**

|     |  | Tümüyle Katılıyorum (5) | Katılıyorum (4) | Kısmen katılıyorum (3) | Katılmıyorum (2) | Hiçbir şekilde katılmıyorum (1) |
|-----|--|-------------------------|-----------------|------------------------|------------------|---------------------------------|
| 75. | Hazırlık programında edindiğim İngilizce dil bilgisi (gramer bilgisi), PDÖ oturumları için iyi bir alt yapı oluşturdu. | a                       | b               | c                      | d                | e                               |
| 76. | İngilizce dilbilgisi (gramer) kullanımında halen eksiklikler yaşıyorum.  | a                       | b               | c                      | d                | e                               |
| 77. | İngilizce'yi sözlü olarak kullanırken Türkçe düşündüğüm zamanlar oluyor.   | a                       | b               | c                      | d                | e                               |
| 78. | Hazırlık programında İngilizce'yi konuşabilecek kadar öğrenebildim.  | a                       | b               | c                      | d                | e                               |
| 79. | Hazırlık programında sözcük dağarcığımı PDÖ sisteminde zorlanmayacak kadar geliştirebilmiş olduğumu gördüm.            | a                       | b               | c                      | d                | e                               |
| 80. | Hazırlık programında yapılan İngilizce okuma çalışmalarından çok yararlandım.  | a                       | b               | c                      | d                | e                               |
| 81. | Hazırlık programı sonrasında okuduğumu anlama açısından problem yaşamadım.   | a                       | b               | c                      | d                | e                               |
| 82. | Hazırlık programında iyi bir telaffuz edindim.   | a                       | b               | c                      | d                | e                               |
| 83. | Halen sözcükleri doğru telaffuz ettiğimden emin olmadığım zamanlar oluyor.   | a                       | b               | c                      | d                | e                               |
| 84. | Düşüncelerimi sözlü ifade edebilmede halen problem yaşıyorum.  | a                       | b               | c                      | d                | e                               |
| 85. | Sözlü tartışmalarda güçlük yaşıyorum.  | a                       | b               | c                      | d                | e                               |
| 86. | Hazırlık programı, yazma becerisini yeterli ölçüde geliştirmemi sağladı.   | a                       | b               | c                      | d                | e                               |
| 87. | Hazırlık programında dinlediğini /duyduğunu anlama becerimi oldukça geliştirdim.                                       | a                       | b               | c                      | d                | e                               |