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A SUPPLY AND DEMAND ANALYSIS BETWEEN THE IMPLEMENTATION OF
THE 1995 EFL PROGRAM AT I.T.E.S.M. CAMPUS CD. JUAREZ AS SEEN BY
EFL INSTRUCTORS AND THE OCCUPATIONAL NEEDS IN THE NORTHERN
US-MEXICO BORDER AS SEEN BY COLLEGE GRADUATE EMPLOYEES.

T E S I S

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Lingüística Aplicada

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With love

to my parents

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Summary

This thesis is a bilingual study in which forty employees holding undergraduate degrees in diverse academic disciplines who work in the twin plant sector of Cd. Juárez were interviewed by means of a questionnaire. The study is merely based on the twin-plant college graduates' opinions that define the demands concerning the skills of English as a foreign language which are needed to fulfill the employees' job responsibilities. It describes the EFL instructors' point of view regarding the foreign language instruction as implemented according to the 1995 English Foreign Language Program at I.T.E.S.M. Campus Cd. Juárez. An interview with I.T.E.S.M. instructors was carried out in order to compare the college graduate employees' perception regarding their needs with the instructors' point of view about the foreign language instruction at I.T.E.S.M.

Based on the employees' perception, it was found that the skills most demanded by college graduates working at twin plants are the oral ones. Certain needs regarding cultural-conventional aspect in the foreign language were also reported. The study also reveals the relationship between the skills employees state they require and the

style of language college graduates affirm they demand. An example of this is the employees' perception about the low demand of informal language in reading and writing as well as the high demand of formal language in the same abilities. Another aspect employees considered was the need for technical language which is demanded with a higher frequency in the non-oral skills than in the oral abilities.

Regarding the implementation of the 1995 English Foreign Language Program instructors think that it fulfills the majority of the demands detected in the sample under study. However, teachers perceive that the aspect not considered sufficiently is the need for technical language. The cultural-conventional issue is proposed to be studied in more detail in future projects due to the discrepancy between what instructors claimed to be doing in class and the suggestions they made about the emphasis the cultural-conventional issue should receive.

Resumen

Esta tesis es un estudio bilingüe en el cual cuarenta empleados profesionales con grado escolar de licenciatura en diversas disciplinas académicas que trabajan en el sector de la industria maquiladora de Cd. Juárez fueron entrevistados por medio de un cuestionario. El estudio está basado meramente en la opiniones de los empleados que definen las demandas concerniente a las habilidades del inglés como idioma extranjero para satisfacer las responsabilidades de trabajo de los empleados. Describe el punto de vista de los instructores de Inglés como Lengua Extranjera concerniente a la instrucción del Programa de Inglés como Lengua Extranjera 1995 en el Instituto Tecnológico y de Estudios Superiores de Monterrey Campus Cd. Juárez mediante una entrevista con los maestros y compara la percepción de los empleados profesionales concerniente a sus necesidades con el punto de vista de los maestros acerca de la implementación del Programa de Inglés como Lengua Extranjera 1995.

En base a la percepción de los empleados, se encontró que las habilidades más demandadas por los profesionales que trabajan en la industria maquiladora son las orales.

Las necesidades que se refieren al aspecto cultural-

convencional en la lengua extranjera también fueron reportadas. Asimismo el estudio revela la relación entre el tipo de habilidades que los empleados dicen requerir y el estilo de lenguaje que los profesionales afirman demandar. Un ejemplo de esto es la percepción de los empleados referente a la baja demanda de lenguaje informal en escritura y lectura así como la alta demanda de lenguaje formal en las mismas habilidades. Otro hallazgo es el que se refiere al lenguaje técnico donde los empleados consideraron que éste es demandado con mayor frecuencia en habilidades no orales que en habilidades orales.

Concerniente a la implementación del Programa de Inglés como Lengua Extranjera 1995 del I.T.E.S.M., los maestros piensan que éste satisface la mayoría de las demandas detectadas en la muestra bajo estudio. Sin embargo, ellos opinan que el aspecto que no es considerado suficientemente en la instrucción del programa es la necesidad del lenguaje técnico. La cuestión cultural-convencional se propone a ser estudiada más a fondo en futuros proyectos debido a la discrepancia que existe entre lo que los maestros afirmaron llevar a cabo en clase y las sugerencias que ellos mismos hicieron acerca de que el aspecto cultural-convencional debería ser más enfatizado.

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Introduction

Cd. Juárez, Chihuahua is located in the border region between the United States and Mexico. Its permanent contact with El Paso, Texas creates a cosmopolitan area where economy dependency, cultural diversity and a mixture of two languages are observed.

The economy of this border town and surrounding area is heavily based on the twin-plant activity where the English and Spanish languages are simultaneously handled due to the contact between American personnel and Mexican professional employees and workers. This work relationship has led many Mexican employees who work in twin plants to learn the language through which the commercial and technical transactions as well as communication by different means are carried out: English.

Education plays a crucial role in this phenomenon where bilingual and bicultural people are more demanded day by day. Universities in this region should be more aware of the changes taking place in the Commerce and Industry areas. English in Foreign Language Programs in higher level institutions as well as the professional training of teachers for these programs is an essential aspect to be considered permanently by educative institu-

tions.

Based on these reflections and taking into consideration I.T.E.S.M. campus Cd. Juárez' concern for this issue, the present study intends to find out the college graduate employees' perception on the English Foreign Language necessities in twin plants and to analyze the instructors' point of view about the offerings regarding the instruction of the 1995 EFL Program to see whether this implementation fulfills those demands and later to make suggestions according to the findings.

1. Problem, purpose and limitation of the study

The first chapter of this thesis will consider aspects such as a general overview of the City of Juarez and the relevance of twin plants for its life. Also, the linguistic and cultural dimensions in this locality and in the twin plant sector will be discussed. Finally, the objectives and limitation of the present project will be established.

1.1. Definition of the problem

Cd. Juárez has become a relevant international commercial area due in part to its nearness to El Paso, Texas and the implementation and growth of twin plant companies that assemble premanufactured parts using inexpensive labor available in Mexico. Part of the labor force include white-collar personnel such as engineers, accountants and managers. Due to their position in these companies, they have interaction with American executive personnel and therefore need to communicate in English to perform their tasks. Communication is not only verbal but also in a written form. Learning a foreign language among college graduates has become an increasing demand with the expan-

sion of the international trade in the border region. Nevertheless, from the linguistic and cultural point of view, English learning among white-collar people has not been sufficient to accomplish their communication tasks. Education plays an important role in this process.

I.T.E.S.M. Campus Cd. Juárez has always been conscious about the importance of English in the border region; however, based on my personal perception, it can be said that the implementation of the English programs is not sufficient to meet the demands of English language skills college graduate employees affirm they require working in twin plants. Recognizing such discrepancy, the present project will focus on the this problem making a conscious study of its background.

1.1.1. Antecedents

Cd. Juárez lies approximately 300 miles north Chihuahua City, the capital of its state, Chihuahua, and borders on El Paso, Texas. The census data for 1990 show that Cd. Juárez has a population of 749,499. It is estimated that 64.3% of this population is employed. The residents of Juarez are engaged in different activities such as industry and constructions (49.3%) commerce and services (45%)

and agriculture (1.4%) (Cuaderno Estadístico Municipal, 58).

Almost the entire population of this city is, for economic purposes, very much related to the U.S. It is estimated that one third of its habitants draw their livelihood from the two hundred and sixty-seven American-owned assembly plants set up on a permanent basis in this locality (Anuario Estadístico del Estado de Chihuahua, 98).

Cd. Juárez has become the dominant trade zone along Mexico's border with the United States. Its rail, highway and air services to the interior of Mexico and its access to services located in El Paso combine to make Cd. Juárez a major center for international trade. Twin plants have played an important role in such trade growth.

1.1.1.1. Cd. Juárez twin plants

Twin plants originated from BIP (Border Industrialization Program) in 1963 from a Mexican government's desire to alleviate the serious unemployment that had developed along the border. The contract labor agreement which allowed Mexican workers to work in the United States had ended in 1960. As a result, the unemployed found it increasingly difficult to enter the United States due to the

restrictions resulting from the United States labor-union pressures. In response, the Mexican government invested millions of pesos in commercial and cultural facilities designed to improve the appearance of Juarez and to promote the sale of national products; in this way the *Programa Nacional Fronterizo* (PRONAF) complex was established. In addition, in 1964, Mexico began to advertise cheap labor and geographic advantages existent at the border in order to persuade U.S. firms to found assembly plants in the region. Once twin plants were established, employment opportunities increased considerably in a relatively short time. Two years into the program, there were fifty-seven twin plants with 4,257 people employed along the border. By 1970 BIP plants had increased to 120 and employees to 20,327. Between 1970 and 1974, the number of plants in Juarez raised from twenty-two to eighty-nine and employees from 3,165 to 17,489 (Castellanos, 132 f.).

Since twin plants were established, this concept has been present in Cd. Juárez. These companies are generally subsidiaries of foreign firms where labor-intensive assembly is carried out. They were called "twin plant" because the program envisioned these companies were established in close proximity along both sides of the border. This type

of industries have their own particular way to operate:
U.S border operations consist of receiving components from suppliers elsewhere, ship them to the twin plant located in Cd. Juárez where the product is assembled, and then the company located in the U.S. border receive, inspect, warehouse and finally ship the complete product to costumers (IN-Bond Industry, 30).

As mentioned before twin-plant industry has been a major source of employment. Since the principal attraction of this type of companies is the low Mexican wage rates, most of the job creation is at minimum wage level; it is obvious the majority of the Mexican employees who work in twin plants are blue-collar workers. Traditionally, the top positions in the company has been filled by Americans. U.S employees are managers transferred from the domestic organization to the twin plant operation. However, Mexican executives have taken over many middle management positions such as controller, purchasing manager and personnel manager. Mexican employees also fill other qualified positions such as engineers, accountants, supervisors and analysts (IN-Bond Industry, 53 f.). This type of personnel are generally in close communication

with the American managers in meetings and through electronic media. Besides this type of relationship, it is known that some American employees such as engineers and supervisors come from El Paso to work with Mexican colleagues. Due to these interactions, the demand for qualified bilingual personnel is high.

Since 1965 the growth of twin-plant activity has increased. Through these years the Mexican labor has been attractive to foreign markets due to the peso devaluation. Another factor is that Mexico offers not only a safe investment climate but its proximity to the United States also gives the foreign companies a chance to retreat quickly if conditions change. Furthermore, due to the nearness, the transportation costs are reasonable.

Although Mexico has suffered dramatic changes in its economy, the future for twin plants seems to be good for the following years. Alonso Corrales, president of the *Asociación de Maquiladoras Asociación Civil (AMAC)* in this community, predicts an expansion of the already established twin plants in this locality and the growth of those companies will be of 7% or more. Periodic devaluations of the peso makes Mexico more attractive for investment (Interview. March, 1995). Also, the president of the

Cámara Nacional de Industria Maquiladora de Exportación, Raúl Avila, affirms that twin plants investment plans in 1995 will not be detained although a violent fluctuation of the dollar-peso relation is taking place. In situations like this, twin plants function as a shelter for unemployment (*Diario de Juárez*, 12-A. Feb 20, 1995).

1.1.1.2. English at I.T.E.S.M.

As can be seen, the role of twin plants in this community has been relevant for its economy, giving raise to employment. An important aspect to consider in the present project is education. The preparation of college graduates with respect to the knowledge of a foreign language has been crucial in their development when working in twin plants. Educational institutions such as I.T.E.S.M. have been aware of the importance of this training in their students. For a better understanding of the problem, it will be helpful to have some knowledge about English as a Foreign Language (EFL) history in this institution.

The I.T.E.S.M. Campus Cd. Juárez was founded on August 8, 1983 with 108 students. It offered four majors: Industrial Engineering, Business Administration, Account-

ing and Computer Engineering. Since the I.T.E.S.M. System was created, the ambitious educational goal has always been "to train professionals in their fields of study at the undergraduate and graduate level placing special emphasis on the quality and excellence of the study programs (I.T.E.S.M. *Planes y Programas de Estudio de las Carreras Profesionales del Sistema ITESM*, 11). Campus Cd. Juárez has taken this objective as part of its philosophy.

The I.T.E.S.M. Campus Cd. Juárez history is relatively short, but there have been significant changes in its English programs through these years. The oldest study program dates back to 1987. According to this document, students should take English for six semesters in high school. Each course was taught for one hour three times a week. The main objective at all levels was "to acquire a relatively high English proficiency of the four abilities placing particular emphasis on reading comprehension and oral expression" (I.T.E.S.M. *Planes y Programas de Estudio 1987*, 32). On the other hand, Lic. Héctor Servín who was the high school principal from 1987-1992 states that the main focus was grammar instruction. The English Department did not exist officially at that time but there was a coordinator, Ana Lilia Vargas

(Interview. March, 1995). Applicants used to take an admission test to be accepted to high school and a placement test for English as well. According to the latter, they were placed at a given level within the six compulsory courses according to the results of their exam. As of 1992, if a student was placed in level III, the courses to be taken would be English IV, V and VI; those students placed at the beginning in English IV or higher could take a French class in order to complete the six foreign language courses required to graduate (Luz María Barrón, Interview. March, 1995).

During those years, teachers changed from one textbook to another very frequently. Many factors influenced their decision. One of them was the publishing companies' pressure to buy a certain quantity of textbooks at a given time. Another point to consider is that there was not any evaluating mechanism to measure the students' language achievement at the end of the program (Héctor Servín, Interview. March, 1995).

Before 1990, at the undergraduate college level, the study programs included only one English course. All academic majors offered by I.T.E.S.M. required a placement test of English. The students coming from I.T.E.S.M. high

school were exempted from it while students from other high schools had to take it. If they did not pass the test, they would have to take one English course (Sergio Madrid, Interview. February, 1995).

By 1990, the English programs underwent an important modification in both high school and college. The placement test was replaced by a new version: "*Placement Test for the English Spectrum Courses.*" A Department of English was officially established; the coordinator has been Lic. Luz María Barrón. The textbooks used for those courses were from the *Spectrum* series. Nevertheless, before 1995, which was the official date to implement new foreign language programs in the I.T.E.S.M. System, the *Spectrum* series had been gradually replaced by other books such as *On Target* and *In Contact*. In 1992, in addition to the French classes already existing in high school advanced English courses were added to the Foreign Language Program. The Advanced English I course deals with reading and analysis of newspapers and other news media. The Advanced English II course focuses on film analysis. To date the content of the Advanced English III has not been defined as firmly as the two previous courses. At times, the content has been public speaking and at others the

teaching of advanced writing (Luz María Barrón, Interview. March, 1995).

In January 1993 a language laboratory was created. In August of the same year, the bilingual high school was established. Under this program, English courses are taught daily. In January 1994 the last *Placement Test for the English Spectrum Courses* was replaced by *The Maculatis Assessment Battery Test* which is considered to be more accurate and evaluates the four language skills. From May 1995 on, the *Test of English as a Foreign Language* (TOEFL) will be administered to the 1990 high school generation to evaluate students' command of English (Luz María Barrón, Interview. March, 1995).

At the undergraduate college level, special language courses were included as a curricular requirement for I.T.E.S.M. students. This significant change took place due to the fact that the Southern Association of Schools and Colleges (SACS), one of the organizations that accredits the I.T.E.S.M. System in the U.S., made some recommendations. They emphasized the need to broaden the students' general knowledge in the 1990 study programs. The System decided to include what is called *Cursos Sello* ("Sello" means 'seal' and is equivalent to the core

courses in American universities). English courses were included in this program.

The 1990 English courses at the undergraduate level included the remedial elementary level with two courses, Remedial I and Remedial II where *Spectrum I* and *Spectrum II* textbooks were used respectively. The intermediate and early advanced level consisted of three courses named English I, English II and English III; these were taught using *Spectrum III, IV and V*. The advanced level was offered to students who possess a high English proficiency: Composition, Listening Comprehension and Public Speaking (I.T.E.S.M. *Planes y Programas de Estudio de las Carreras Profesionales del Sistema ITESM*, 35). According to the students' proficiency, they could be placed in either Remedial I or II or in one of the three courses from the basic level. If the students were placed in Remedial I, they had to take five English courses; if they were placed in Remedial II, they took four courses; if placed in English I, they needed three courses and so on. If students were placed in English IV (the first of the advanced courses) they took the last three courses. No credit was given for these advanced courses. Those courses were based on the communicative approach in which the four

abilities of the language are stressed in foreign language teaching and learning (I.T.E.S.M. *Planes y Programas de Estudio de las Carreras Profesionales del Sistema ITESM*, 38).

It is difficult to evaluate the English programs because from 1990 to 1995 there is no evaluating instrument after students started and finished the entire program. Despite this fact, it can be said that from 1983 to 1990, the students learned mainly grammar and vocabulary. The four abilities were not emphasized even though the printed English programs stated the opposite. This is due in part to the fact that the I.T.E.S.M. curriculum at the undergraduate level did not stress the learning of a foreign language; the requirement for all majors was to take only one English course. Furthermore, students were not expected to read as many books in English as they are today (Héctor Servín, Interview. March, 1995). In addition and from personal observation, it can be said that the four abilities were not emphasized due to the insufficient preparation in EFL teaching of instructors.

From 1990 to the present, English has played an important role in the I.T.E.S.M. curricular programs. This

is reflected in the establishment of the bilingual high school, the creation of a language laboratory and the inclusion of additional courses at the undergraduate level. It is difficult to judge to what extent I.T.E.S.M. has succeeded in its foreign language teaching because 1) there has not been any evaluating mechanism when students completed the English programs, and 2) because only two generations, one from high school and one from college have graduated under the 1990 EFL program. It is too early to know about its success. In spite of this, mere observations lead to the conclusion that also the instruction of the 1995 English programs do not suffice to provide students with the English skills demanded in college graduates working jobs in twin plants.

1.1.2. Linguistic and cultural aspects

I.T.E.S.M. Campus Cd. Juárez has enhanced in one way or the other the learning of English among its students. Both linguistic and cultural dimensions are important aspects in such process. For this reason, phenomena such as bilingualism and disruption in communication in this city and the twin plant sector will be analyzed.

Juarez is characterized by the absence of a community

of native speakers of English; that is, there is no an American colony. This language is restricted to certain areas such as tourism, business and industry. English in Juarez is used for advertisement in the spoken and written media where it is frequently mispronounced and misspelled. In certain areas of the city, it is also used on street signs (Castellanos 1981 in Hidalgo, 195).

The use of English in twin plants, on the other hand, has become an important demand for those people that need to communicate with Americans. Authors like Cisneros state that one of the dimensions of global economy with immediate repercussion in a curriculum is the rapid electronic communication carried out in English, the international language for commerce (Bixler, 3). It is known that the executive personnel working in twin plants is American, but in recent years other American college graduates such as engineers and supervisors come from El Paso to work in the companies established in Juarez; they need to have a closer communication with Mexican managers and colleagues. In addition to the necessity of closer communication, it is understood that it is less expensive to give maintenance (to pay utilities, taxes, etc.) to offices established in Cd. Juárez than giving such mainte-

nance to offices in El Paso. Because of these facts, much interaction between American and Mexican people takes place. Mexican college graduates and technicians get in touch with American personnel in meetings to give presentations. Managers in twin plants like Jesús del Hierro and Karl Popierlarczyk, state that in those meetings Mexican personnel talk about their projects, they give suggestions, and discuss their work; sometimes it is necessary to talk about other topics, even to make jokes, in order to create a relaxed atmosphere in which both Americans and Mexicans feel more confident (Interview. February, 1995). Communication in the written media is an increasing demand. Personnel in twin plants need to write memos, and the sophisticated media in which electronic mail and faxes are included force people to interact in English inside as well as outside the company. Translations of information in English is necessary too. In addition, sometimes it is required to travel to the United States and people must be proficient in English to perform those and other tasks. Speaking is the most demanded skill. Mexican workers need to talk fluently; it is not enough to utter sentences which are grammatically right, they need to have knowledge about American cultural patterns (Del Hierro and Popier-

larczky, Interview. February, 1995).

With respect to this, it can be observed in daily life that a certain biculturalism prevails among the population. There is a mixture of cultures on both sides of the border since Cd. Juárez and El Paso have a close interaction due to the diverse existing relationships. Consequently, Mexicans have modified their habits in dress, diet and language and have adopted some American holidays to celebrate (Hidalgo, 195). These changes in cultural patterns have also extended to work places such as twin plants. Nevertheless, they have not been enough for Mexicans to interact successfully with Americans and a more profound knowledge of American culture is required to have meaningful interaction with them, since it can not be expected that the American bosses adapt to the Mexican patterns.

1.1.2.1. Bilingualism in the border region

Juarez residents are both dependent from and interdependent with El Paso. Daily contact occurs in all social economic levels and involves a wide spectrum of activities such as work, shopping, entertainment, visits to relatives and friends and commercial transactions. The type of con-

tact depends on factors such as sex, age, income and occupational activity (Martínez 1977 and 1978 in Hidalgo, 195). Thus, bilingualism is omni-present. The access to English by Juarez residents is given by informal exposure such as watching movies or television, listening to the radio or reading material in the other language as well as the daily casual contact with people from the United States. The formal exposure is given when English instruction takes place in the classroom. The two languages are taught as school subjects and they are offered by a large number of language schools and academies (197).

Bilingualism has also extended to American-owned assembly plants, mainly for interaction between Mexican and American personnel. Proof of this are the numerous employment's advertisements in both El Paso, Tx. and Juarez, Chih. that reveal the increasing necessity of bilingual college graduates.

1.1.2.2. Disruption in communication

Bilingualism is an advantageous phenomenon which allows for a better communication between the residents of both sides of the border; however many cases of disruption in communication may occur. This is due in part to the

coexistence of two cultures. Such disturbance in interaction also takes place in work places where two languages are handled, specifically in twin plants. Bixler emphasizes that the educational programs should not only produce a larger number of bilingual and polyglot college graduates, but also personnel with transcultural communicative skills (5). One of the most important problems in industries located in Mexico and Latin America concerns the misunderstandings between foreign personnel with Mexican college graduates because of cultural differences. Such misunderstandings cause a high social and economic cost. Transcultural communication training is necessary for Mexican and American college graduates who are unaware of social, cultural and demographic characteristics of the border. Their adaptation is fundamental for twin plants (Bixler, 5).

1.2. Purpose of the study

English as a foreign language has been studied in this border community for different purposes which reflect among other things the economic and cultural dimensions of the city. Twin plants have become an important part of the economic aspect in which English is necessary to be

learned by white-collar workers. Taking into consideration the aspects mentioned above, the main objective which the present study tries to accomplish is to find out college graduates' perception regarding the type of language skills they demand as well as the type of English needed in their jobs. Since the teaching of English is an inherent aspect in this issue and considering that I.T.E.S.M. has been conscious of its importance in this community, a question to be answered by the present research is the following: Do the instructors consider the implementation of the 1995 English Foreign Language Program at I.T.E.S.M. Campus Cd. Juárez adequately meet the English language needs college graduate employees perceived in the twin-plant sector?

Once the information has been obtained, it will be used to give suggestions (if it is necessary) to improve the implementation of the programs under study.

1.3. Limitation of the study

The present investigation will include a brief theoretical frame and the sample under study will consist of information from forty college graduate employees of different occupations such as accountants and engineers

who work where English and Spanish are handled. The survey will be limited to companies located in Cd. Juárez. It will provide information about the college graduates employees' perception regarding the type of English demanded and the type of language skills required as well as information about the cultural aspect. The institution from which the instructors' point of view will be taken into consideration in order to evaluate supplies and demands based on the implementation of the 1995 EFL program is I.T.E.S.M. Campus Cd. Juárez.

As mentioned before, this study intends to obtain information (through the administration of two questionnaires) about the instructors' and employees' perceptions regarding the EFL necessities and other research techniques such as the direct observation are not used.

At this point it is important to notice that college graduate employees will answer the questionnaire after taking English courses from earlier programs, whereas the instructors' answers will be based on the instruction of the 1995 EFL Program.

For the realization of the present project, it is important to note that the long-distance tutoring caused some delays and misunderstandings.

Taking into consideration the background of the issue provided in the present chapter, the theoretical and empirical dimensions of the thesis will be elucidated in the following section.

2. Theoretical framework

From the forgoing it becomes clear that I.T.E.S.M. has stressed the teaching of English as a foreign language in recent years taking in consideration the importance of such language in the productive life of this community. This fact leads to think about a connection between the language and the economy of a society. For this reason, the value of language from inside the economic structures will be studied. In addition, because of the nature of this research, aspects such as bilingualism and culture differences will be discussed. The English language skills are significant variables in this study, hence a portion of the present chapter will be devoted to them.

2.1. The economic value of language

In the present context the main question to be asked is how to represent the economic value of a language and how to compare languages in terms of this value. From the point of view of Coulmas, language is not but has a value. The dominion of a language involves a potential for individuals to expand their action and therefore their enrichment (54).

Different people mean different things when talking about the value of a language. The author's hypothesis states that its value correlates with the number of speakers; the more numerous the language group with which a person can interact, the greater is its utility to him/her in a practical sense; German which is spoken by almost 100 million speakers is more valuable than Dutch with a speech community of 20 million. In this sense, English is more valuable than Spanish, French and Italian (59).

In addition to the absolute size of its speech community, the functional aspect of a language also depends on its culture's socioeconomic profile, geographic position, sociopolitical status, as well as its association with religion, literary and cultural tradition. These factors also determine about how attractive a language is as a foreign language (63).

Only a small fraction of the languages of the world possess the above attributes for the exchange of scientific ideas, administration and technology. When a language is useful in those domains and provides access to knowledge which is helpful to individuals, it is recognized as a mean of production. This explains why opportunities in the labor market are affected by language skills

(Coulmas, 65). Two aspects need to be considered when languages are studied under this angle. The first one has to do with the grade to which a language can adapt to the requirements of modern communication. The second aspect concerns the potential a language has on a certain market (66). Today English and Spanish are fully adapted for all demands of modern communication. However, a Mexican businessman does not try to operate on the American market without a sufficient command of English while on the contrary, American business people expect to be able to do business in Mexico without being proficient in Spanish. This is a reflection of the "arrogance of power," but on the other hand, it affirms that the potential value of English on the Mexican market is stronger than that of Spanish on the American market (67).

Another point of view of the value of language in the opinion of Coulmas is determined in relation to that of others. In other words, languages have a market value. The most important factors for determining it are the economic, followed by political and cultural aspects. For instance, Chinese is the language of a huge speech community with cultural tradition and political importance in the world today. In spite of this, there is no great de-

mand for Chinese as a foreign language because in addition to its difficulty, there is a limitation of its potential for economic utilization (79).

Taking into consideration the ideas mentioned above, it is clear that English has a high value as a foreign language. Seventy percent of the world's mail is estimated to be written in English and eighty percent of all information stored in data banks is in English (80).

2.2. Bilingualism

A community may perceive a foreign language as a value for any of the reasons mentioned before. When this occurs, the probability of both native and foreign languages to be used is high. In this situation bilingualism develops. This phenomenon has been observed in Cd. Juárez in view of the different kinds of relations with El Paso, Tx. Since *maquilas*--(American twin plants, i.e., factories) whose main function is to assemble premanufactured parts using inexpensive labor--began to operate in this city, bilingualism has played an important role in communication on the job market between American and Mexican personnel. For this reason, the phenomenon will be discussed in this chapter. Researchers have proposed a vari-

ety of definitions of Bilingualism. Fluency has been the main factor in order to determine the use of this term. Bloomfield claims that true bilinguals are characterized by being proficient in a second language and indistinguishable from the native speakers around them without losing the command of their native language (Grosjean, 231). Thiery states that the true bilinguals he studied had learned their two languages before the age of fourteen. They do not have any accent in either languages and are equally fluent in all skills in the two languages (232).

As can be seen, those definitions are very strict about the term under study. Macnamara, on the other hand, considers a person bilingual if he/she possesses at least one language skill--even to a minimal degree-- in a second language (232). This definition is more realistic and applicable to the sample to be studied in the present research; it can be observed, for instance, that some of the college graduate people know how to read in English but their proficiency in speaking is poor. Mackey refers to this phenomenon as "receptive bilingualism" (Grosjean, 236). This definition has led psycholinguists to differentiate between "balanced" bilinguals, comprising those

persons equally fluent in two languages, and "non-balanced" bilinguals who are really fluent in only one language; balanced bilinguals are the exception since the most bilinguals use their language for different purposes and in different situations. Malherbe supports this point when he affirms "that the only practical approach is to assess bilingualism in terms of certain social and occupational demands of a practical nature in a particular society" (Grosjean, 235). For him, purpose and function are the main determinants. The concept above is valid for the consideration of this study. Mackey coincides with this definition when he remarks that "the degree of proficiency in each language depends on its function, that is, on the uses to which the bilingual puts the language and the conditions under which he has used it; these may be external or internal" (236). The external functions comprise the areas in which the bilingual is in contact with the language as well as the duration and frequency of contact. Internal function includes factors such as sex, age, intelligence, memory, motivation and use of internal speech on which the utterance is directed toward himself/herself; for example, counting and praying. In addition, Mackey writes that immigration, marriage, education and commerce

ensure the development of certain language skills but rarely all of them equally (237).

From the psycholinguistic point of view, there are three types of bilingualism. Weinreich was the first to propose this classification. He states that in the *coordinate* type, the individual keeps the vocabularies of the two languages totally separated; each word has its own very specific meaning. In the *compound* type, on the other hand, the two equivalent words have one common meaning for both so that each word brings to mind the same reality. Finally, the *subordinate* type of bilingualism interprets words of the weaker language through the words of the stronger language (Grosjean, 240 f.).

Bilingualism is an inherent concept in the study of demands required by college graduates working in places where two languages are spoken. Besides bilingualism, another aspect of language namely the different types of English will need to be discussed.

For this research, two dichotomous dimensions will be considered: the use of *formal vs informal* and *technical vs general* language. Formal English is typically acquired through instruction at school, and it is syntactically correct; it is more elaborated. In contrast, informal

English is characterized by being used in every day situations; it is not very careful about the syntax and the use of contractions is common (notes from Análisis del Discurso, 1994). The technical language focuses more precisely on the type of tasks performed by people working in a specific area; a normal practice is the utilization of glossaries in order to look up a specific word used in a certain area of study. On the other hand, in general language no specific terminology is employed; the structure and vocabulary can be understood by any individual (notes from Análisis del Discurso, 1994).

2.3. Culture

An important aspect of foreign language acquisition is related to the cultures involved because language is one of the most observable expressions of the culture of a group. This is also the case in the context in which the present study is taking place, since two cultures coexist. For the purpose of this thesis, *culture* is defined as a system of attitudes and values learned by individuals in order to achieve social and psychological adaptation (Krashen 1995, 43). This concept is here applied to the job environment. It might also be necessary to distin-

guish between the concepts of *second language (SL)* and *foreign language (FL)*. *Second language* refers to the acquisition of a new language, normally the official language in the country the person lives, once his/her first language has been acquired at home. *Foreign language* is a language not used as native by residents of the community in which that language is being learned, e.g., English learned in Mexico (notes from *Análisis del Discurso*, 1994). In the case described, we are dealing with English as a foreign language. Furthermore, the distinction between *language acquisition* and *language learning* has to be explained. The former refers to the process by which a child gains dominion of his mother tongue from natural input without formal instruction. Language learning, on the other hand, is the process of assimilating a language through an organized program (notes from *Análisis del Discurso*, 1994). Where second language is concerned, both processes are possible. Relevant information has been found in Krashen (1982), Schumann (1978), and others. Schumann considers that these processes are just one aspect of acculturation, and that the success of learning the second language will depend on the degree a learner acculturates to the target language (78).

Acculturation and consequently second language acquisition is determined by the degree of social and psychological distance. *Social distance* includes a number of factors which affect the learner within a social group in contact with the target language group. Although Schumann only discusses the situations of members of ethnic minorities in the United States, the concept can be easily transferred to the Mexican border region. A Mexican who takes on a job in a U.S. administrated twin plant immerses himself/herself into the U.S. cultural background. In Mexico as in the U.S., the following issues are involved in *social distance*: the subordination of either the target-language or second-language-learning group. One group is said to be dominant in relation to the other when its standard of living, level of education or degree of technical development is higher than the other's.

Another factor is the kind of integration pattern. According to the acculturation theory, Schumann states there are three integration strategies which the second language learning group might adopt: assimilation, acculturation or preservation. When *assimilation* occurs, the group learning the second language gives up its own life styles and values and adopts those of the target language

group. *Acculturation* consists of the adoption of the life styles and values of the target group, but at the same time maintaining one's cultural patterns. *Preservation* is a strategy in which the second language learning group rejects completely the life style and values of the target language group and maintains its own cultural values as much as possible (75 f.).

An additional social variable proposed by Schumann is the *degree of enclosure* which refers to the structural aspect of integration. It is defined by whether the two groups share the same social institutions, for instance, if they are free to intermarry, if they are engaged in the same professions or trades, etc.

Other factors such as *cohesiveness* and size are also contemplated. The first one refers to the condition in which the speakers maintain their unity and their language. A less cohesive group favors the learning of a second language, whereas a cohesive group is more reluctant. Regarding size, it is observed that a smaller group benefits more from learning situations.

Schumann also discusses the similarity and difference between the cultures of the target group and that of the second language learners (*congruence*) as well as their at-

titudes. This concerns the cultural expectations maintained by the second language learners toward the target language group and vice versa.

Another aspect that affects second language learning is the length of residence of the individual which is defined in terms of time the second language learner intends to live in the target language area (77 f.).

Based on the factors mentioned above, some of the researcher's general impressions and observations can be linked to Schumann's postulations: It appears that Mexican college graduates normally subordinate to the American executive personnel. In other words, they do not see themselves as socially equal. With respect to the type of integration pattern, college graduates adopt the pattern of acculturation. Concerning the degree of enclosure, no statements can be made as to whether both groups expect the second language learners to share social facilities with the target language group. In addition, from mere observation it can be said that the second language learners' group is not normally very cohesive and the size of that group is larger than the target language speakers', there are more Mexicans than Americans. In the sample under study the following three aspects positively affect

second language learning. The degree of similarity between Mexicans and Americans is not as low as it could be between Mexicans and Chinese people. Both belong to western cultures. Regarding attitude, there is a degree of similarity between the second language group's culture with that of the target language. As mentioned earlier, people in the border have adopted some of the American customs in dress, food and celebrations. Finally, although most college graduates do not live in El Paso, they intend to reside in the border region permanently.

Schumann also discusses the psychological aspect of acculturation. It comprises affective characteristics which imply language shock, culture shock, motivation and ego boundaries (86-91). Taking into consideration these factors, the psychological aspect can be linked to the sample under study. For instance, concerning language shock that refers to the doubt or confusion the learner experience when he/she uses the second language (Schumann, 87), a no definitive statement can be made as to whether college graduates undergo these situations. Nevertheless, from mere observation it can be said there is a degree of language shock, not only in college graduate employees, but also in any second language learner. This is also

true for culture shock where the learner experiences disorientation, stress or fear as a result of the differences between his/her culture and that of the second language (Schumann, 87). It is observed these are common feelings among learners as a second language including college graduate employees, but as mentioned before, a no definitive statement can be made about culture shock in twin-plant employees.

With respect to these aspects, Krashen affirms that, together with the comprehensible input, the affective aspect of the learner has to be considered. The Affective Filter Hypothesis claims that when the student is not motivated, he does not identify with the speakers of the second language and feels anxious. A mental block, called *affective filter* will obstruct his/her language acquisition (22).

Although the present study does not focus on the psychological aspect of language, this topic is mentioned as an additional factor that affects foreign language learning in twin-plant employees based on the acculturation theory.

2.4. Language skills

Nowadays the development of language skills in college graduates is imperative for their employment. This chapter is devoted to the basic types of language skills which determine the proficiency in a foreign language: listening, speaking, reading and writing. The sequence in which they appear is based on that corresponding to the normal language acquisition process.

2.4.1. Listening

Listening comprehension has been one of the major goals to achieve by students in order to understand speakers of English. According to Peterson, the following ideas about the listening process have been accepted widely in the last thirty years. They are based on observations made by Nida, 1957, with Africans (Peterson, 107). One of them is related to a very active subprocess in language learning called *global* listening during which the learner's mind operates on the incoming language input, without the individual's effort to learn; his/her mind assimilates and classifies many features of the input in order to get a total impression of the message's form and meaning. Nida also refers to a different process, *selec-*

tive listening, when the attention is directed toward specific language features. The learner listens to one feature at a time in the following order: 1) tone of voice, 2) new second language sounds, 3) sounds similar to the native language, 4) words and phrases and 5) grammatical forms. Exercises in Selective listening are recommended when first language production habits might interfere with the perception of the second language. It allows the learner to be aware of important linguistic distinctions (Nida 1957 in Peterson, 108).

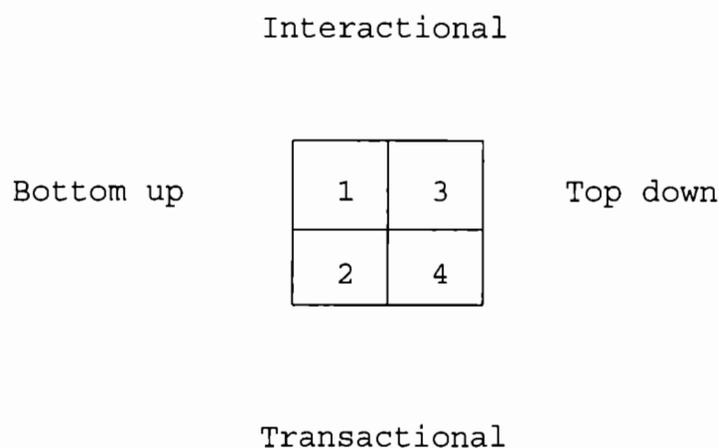
For this study it is important to establish the language functions in listening. Brown and Yule, 1983, divide language functions into two major types. The *interactional language function* comprises social relationships and expresses personal attitudes. Its objective is to establish and maintain cordial social relationships. It is oriented to listeners and focuses more on persons than on information. One feature of the interactional function of language is talking about 'safe' a topic, such as the weather. In contrast, the *transactional function* of language is message-oriented and focuses on content. Some characteristics of transactional language are instructing, giving directions, explaining, describing, requesting, re-

lating, ordering, etc. For the listener it is important to distinguish those functions in order to know how to respond appropriately (Morley, 86).

In addition to language functions, it is meaningful to consider the processes involved in listening comprehension. Bottom-up and top-down cognitive processes are both involved in this type of skill. *Bottom-up* comprehension of speech refers to what Nida calls *selective* listening; the learner's understanding is proceeded from integrating sounds into words, words into grammatical relations, and so on. The *top-down* processing goes from the whole down to details and internal sources such as prior knowledge and global expectations are used. On the basis of context, listeners can predict what the incoming message will be about (Morley, 87).

Taking into account the functions and processes involved in listening Richards proposes a model for second language comprehension that combines language functions (interactional and transactional) and language processes (top-down and bottom-up). For instance, the purpose (transactional or interactional) for listening, the kind of background knowledge which can be applied to the task and the degree of familiarity listeners have with the

topic determines the extent to which one of the processes (top-down and bottom-up) dominates. Richards uses the following diagram which allows listening to be classified as depending on the demand of the function (Richards 1990 in Morley, 87 f.).



In the bottom-up mode, cell 1 refers to something like listening closely to a joke (interactive) in order to know when to laugh. Cell 2 exemplifies listening closely to instructions (transactive). In the top-down mode, cell 3 has to do with listening casually to small talk during a cocktail party (interactive). With respect to cell 4, the author gives an example in which an experienced air traveler listens casually to the verbal air safety instructions (transactive) that have been heard many times (Richards 1990 in Morley, 88).

2.4.2. Speaking

Oral communication is an important need for a foreign language learner, specially when the contact is given with native speakers of the target language. One of the most popular theories about how a person acquires speech is the hypothesis formulated by Krashen. He affirms that the ability to speak results from language acquisition as a result of obtaining comprehensible input. One way to obtain the input might be through listening (Krashen 1993, 9).

In acquiring the skill for oral communication, the learner needs to know, in addition to the structural aspect, a set of sociocultural rules in order to choose the appropriate forms for a given situation. It is observed that speakers of a community with the same language follow norms to interact with each other. Examples of them are the knowledge about what the acceptable topics are and what is said next in a conversation. Those examples illustrate to Hymes' concept of *ethnography of speaking*. Contrary to Chomsky's point of view in which the linguist emphasizes the grammatical aspect of language (Coulthard, 33), anthropologist Hymes states that besides language structure, language use should be considered. For in-

stance, "the rules of speaking... the ways in which speakers associate particular modes of speaking topics, or messages forms with particular settings and activities" is an important point to ponder (Coulthard, 34). British philosopher Austin agrees with Hymes when remarking the importance of using appropriate words in appropriate circumstances (Coulthard, 15). This is reflected in the speech act theory, claiming that an individual performs actions through language. The verbs used in certain situations are called *performatives* since a person does things through them.

While Austin suggests the term *performative* to the situation mentioned above, Wilkins refers to it as the *communicative function* of a language in which, he remarks, it is not enough to use language to describe or report things or events; it is even more important to know how to do things through language (41). The premise on which the functional approach to second language teaching and learning is based are the needs of the learners and their purpose for learning English. The practical sense of what they study derives from the use of linked language forms in everyday life. These assertions lead to think about the English courses which should not necessarily be highly

structured or intensive, but should give guidelines for responding to the specific needs of the individuals or small groups instead (Howatt, 282 f.)

One of the first studies about the functions of language is given by Roman Jakobson. He states that there are different factors that determine a different function of language. He mentions the *addresser* who sends the message, the *addressee* who receives it. Also the *message* itself and a *context* are included. A *contact* is another factor which allows to stay in communication between the addresser and the addressee through a physical channel and psychological connection. An additional component is a common *code*--or language--by which they understand each other. Those factors serve as bases to define the different types of functions. One of these is the *emotive* that concentrates on the addresser's feelings; it intends to produce an expression of an emotion; the speaker's attitude is reflected in what he is speaking about; the *conative* function, on the other hand, is directed toward the addressee and tries to influence him/her; it is often found in imperative sentences. The *referential* function points to someone or something spoken of (third person). It is also called by some authors the *ideational*, *intel-*

lective, or *informative* function. An additional function is used to begin, prolong and/or shut down communication; it is named the contact or *phatic* function,; it is disposed to communicate before informative communication is sent or to conclude a dialogue. The *metalingual* function refers to the capacity of language to speak about itself. Actually, all linguistic terminology belongs into this group. Metalanguage is practiced without realizing that it is carried out. Jakobson is mostly concerned with the *poetic* functions which focuses on the form of the message; it deepens the division of signs and objects by promoting the readily perception of the first ones and guides all stylistic choices. The examination of language requires an exhaustive consideration of its poetic function (Jakobson, 53-7).

These functions are put into practice through the already mentioned speech acts which reflect the communicative function of a language as well as the sociocultural aspect of it. The correct use of speech acts is important to be mastered by any person who learns oral communication in a foreign language. For this reason, they will be studied in this section.

It is necessary for any foreign language learner to

be placed in a social and cultural context when speaking according to different situations. Speech acts are then defined as the underlying intentions expressed through habitual verbalizations speakers use to perform a variety of functions, such as apologies, requests and so on (Olshtain and Cohen, 155). The student must have linguistic, social and pragmatic knowledge for the success of speech act realizations whose manifestations vary from language to language. As a result, second language learners might fail accomplishing speech acts in the target language in an effective and appropriate manner (Blum-Kulka, 37). Once they acquire the linguistic means necessary for uttering their speech acts, they also have to learn the social appropriateness rules that specify how to choose among available forms in a given context (38). One common speech act is compliments. These are particularly interesting since they reflect, express, and maintain cultural values. They include expressions of approval or admiration of another's work, appearance or taste. A major function of compliments is to establish and reinforce solidarity between the speaker and the other person. The individual compliment must express approval of something which both speaker and addressee feel to be positive

(Manes, 97). One of the most striking aspects of American English compliments from the point of view of social values relates to personal appearance, or the quality of something produced through the person's skills or efforts such as a well-done job or the preparation of a good meal (Manes, 101).

Apologies are another form of expression in any language. The apology speech act set consists of five patterns. The two general ones are characterized by being conventional and habitual; those expressions are formulaic and routinized containing explicit performative verb (e.g. "I'm sorry," "excuse me," "I regret"). The other three strategies are specific for a giving situation whose content is reflected semantically. An explanation, an offer of repair, and a promise of not repeating the offense again are examples of it (Olshtain and Cohen, 156). There are ways by which the speaker can modify the apology. One of them is to strengthen it. In this situation, it creates more support for the hearer and the speaker expresses shame. When the speaker attenuates the apology, the comment minimizes the offense it may have caused (156).

In addition to knowing how to handle apologies, a foreign language learner must know how to make requests in

an appropriate manner. The speech act of requesting takes place when the speaker verbalizes a wish which can be carried out by the hearer. The speech act of request consists of three major categories of strategies: the explicit impositives, the conventionalized routines and the indirect hints. The explicit type includes imperatives, which are the most direct strategies. The conventionalized are polite utterances through forms such as "Could you help me?" or "Would you open the door?". The indirect request comprises a group of hints mentioned by the speaker which could be interpreted as a request under given circumstances; they are nonconventional and habitual forms (Olshtain and Cohen, 157).

Another function persons perform through language is complaining. This type of speech act is characterized by being denunciatory toward the hearer. Complaining is a situation in which the speaker expresses displeasure or annoyance about a past or ongoing action. This speech act can use three strategies: making a mild complaint, an explicit complaint and a more severe complaint. In the mild complaint the speaker expresses the consequences of the violation in an indirect way. The explicit complaint mentions the responsibility of the person who committed the

violation and the act which caused it. The severe complaint comprehends a threat or warning (Olshtain and Cohen, 158).

Besides the sociocultural aspect of speaking, oral communication is characterized by specific features. Those are reflected in the five assumptions about the nature of verbal communication. It is said that communication is meaning-based, conventional, appropriate, interactional and structured (Richards, 242).

The meaning-based aspect of communication has to do with the necessity of linking together all concepts about things, people, events and situations. The mind links concepts to form propositions; they can be expressed by clauses. For instance, the words *table* and *blue* constitute a proposition when the meaning of *The table is blue* is understood. Propositions are the building blocks of communication and the first task in learning to communicate in a language is to make use of propositions. The learner's immediate priority is to construct a way of performing such operations as stating, affirming, denying or questioning propositions in an economical way, using a partial knowledge of the vocabulary and syntax of the target language (243).

The conventional aspect of communication largely consists of the use of sentences in socially accepted ways. Sentences that have been constructed merely according to the rules of English grammar are not necessarily conventional ways of using English. When learners have progressed to the stage where they are beginning to generate verbal expressions, they find that a considerable number of times they fail to conform to patterns of conventional usage. An example is "It is two forty" but not "It is three minus twenty." Researchers in second language acquisition have observed that language learners often memorize constantly used conventional forms for making communication easier (Richards, 247).

In Richard's exposition, the appropriate aspect of communication in the mastery of foreign language not only requires the conventional form of an expression but must also take into account the relationship between speaker and hearer, i.e., the limitations derived from the background and circumstances in which the act of communication is taking place. "What is your name" is a conventional verbal expressions, but it is not the appropriate way of asking the identity of a telephone caller (247). The

communicative competence includes the knowledge of different types of communicative strategies and styles according to the situation, the task, and the roles of participants: age, sex, familiarity and the roles of speaker and hearer play an important role in appropriateness (248).

The interactional function appears in conversations and takes the form of social connection as well as of communicating meanings and ideas. Goffman urges that the interpersonal contact between the participants is given when each of them provides a field of actions for the other (Richards, 249). According to Watson, the relationship between the speakers allows framing the situation, presenting and establishing identities and using strategies to accomplish other interactional ends (Richards, 249). Evidence of this can take place at many levels of conversation. In the initial stages of conversation with strangers, speakers avoid controversial topics and prefer to talk about the weather or the beauty of gardens. For Brown and Yule (1983) this aspect of language is defined as the *interactional* language function on which people talk about 'safe' topics. In this way the speaker expects the hearer to approve and corroborate his opinion. Con-

versations lack real meaning. This is called "phatic communion" and its purpose is sociability (Richards, 249).

Roman Jakobson also mentions this type of function making reference to it only as *phatic* but he adds this type of function is used to begin, conclude or prolong a dialogue and used before informative communication is given (53-7). Watson thinks that the adequate management of these dimensions of conversation is essential to create a sense of naturalness in conversation; the individual feels valued and approved (Richards, 250).

The structured aspect of communication depends on the types of discourse selected and is different in conversations, discussions, debates, descriptions, narratives, instructions and others. These different classes are selected according to the task intended and require the speaker to organize verbalizations in ways which are appropriate to each. Conversations, for example, begin with greetings and progress with the introduction of topics; the right to talk is agreed upon and changes in speaking are predictable. The communicative competence in a foreign language heavily depends on the speakers' ability to create a well organized and coherent appropriate discourse as well as adapting to the other language's conventional

rules (Richards, 251). In other words, speakers of a language have norms to interact among them as, for instance, knowledge about when a question would show interest and when it would constitute an interruption is an important aspect to consider. Failure to handle this dimension of language leads to misunderstandings between speakers of different cultures.

2.4.3. Reading

Besides speaking, reading knowledge of a foreign language is important for academic and professional success. This is particular true of English since much professional, technical and scientific literature is published in this *lingua franca*. Reading is classified as a receptive skill. For Krashen (1993) the only way to improve reading is by reading (38) and several studies confirm that those who read more in their second language, also write better in it (7). The main factors that motivate reading are the reader's interest and the usefulness of the text. The interest can be generated by the wish for enjoyment and pleasure and/or intellectual stimulation. Reading for usefulness is done on any printed material read by the individual for its worth, importance or bene-

fit. It will tell the reader something he/she needs to know. For example, in order to learn how a coffee machine operates, a person must read the instructions (Harmer, 182). These types of reading are also mentioned by Krashen (1993), placing special emphasis on reading for pleasure as a vehicle that will enhance the reading ability in the learner to be later applied to practical demands. He claims that second language acquirers who read for pleasure develop--faster than non readers--the competence needed to move from the beginning "ordinary conversational" level to a level where they can use the second language for more demanding purposes such as the study of literature, business and so on. When they read for pleasure, they can continue to improve their second language without classes, teachers, or study (Krashen 1993, 84).

The success of understanding the content of a reading depends heavily upon not one single skill but a process comprising a complex set of interrelated skills. The first of these--for all kinds of reading--is the predictive skill by which the readers anticipate what they are going to read. In the first instance, their predictions will be the result of their expectations. As they continue to read the predictions will change as they receive

more information from the text. A specific skill is *scanning*. It is used when the reader wants to find precise information and it is carried out to find what the reader needs in a quick way. Another skill is *skimming*; it involves the reader's ability to recognize the main ideas rapidly, discarding points which are not essential or relevant. Extracting detailed information--often called *in-depth reading*--is an alternative skill. Using it, the readers find answers to many questions such as "how many?", "why?", "how often?", etc., and understand the whole reading in detail, even the writer's or speaker's attitudes towards the topic. An important skill is recognizing function and discourse patterns. This includes the understanding of paragraph structure and organization. One of the highest skills is deducing implicit meaning from text. To make inferences, i.e., conjectures of unfamiliar words from the context is a final objective to develop in any student. The skills mentioned above are largely subconscious in the mind of most literate adults (Harmer, 138 f.), but the strategies to acquire them can be taught.

An important point to consider regarding the sample under study in this research is what Goodman thinks about

reading. He affirms that learning to read a second language should be easier for someone already literate in another language regardless of how similar or different second language from first language (Mackay, 9).

2.4.4. Writing

Writing is the last of the four basic skills to be normally developed in a foreign language learner. As in all other aspects of language, it is necessary to distinguish between the *competence in writing* which has to do with the abstract knowledge the proficient writer has about it, on one hand, and the *performance* which concerns the ability to put this knowledge to use, on the other, on a piece of paper (Chomsky 1965 in Krashen, 20).

According to Krashen, the writing competence derives from self-motivated reading for interest and/or pleasure and is acquired subconsciously, since when enough reading is done, all the necessary grammatical structures and discourse rules for writing will automatically be presented to the writer in sufficient quantity (Krashen 1993, 23).

2.5. Earlier studies

Writing, along with reading, speaking and listening are basic abilities required by college graduates working in companies that employ bilingual personnel. In this chapter several studies related to the type of skills demanded by college graduates will be presented. The three research projects were carried out in the United States. The findings may vary from the results obtained from the survey in this thesis. A possible reason for this variation may be the geographic location of the companies. They are in the interior of the United States whereas the persons participating in this study work in companies located in the border.

One of the surveys was carried out by John R. Hubbard and Robert A. Ristau. It studied sixty private sector employers in Michigan and nearby states in order to gather information regarding current and future needs for bilingual employees. Respondents to the survey represented a variety of foreign trade areas, the most common type of which is exporting. Among the conclusions of the study it was found that 61.5% of the companies reported that they require persons who must read, write and/or speak a foreign language. The language in highest demand was Span-

ish, with 86.5% of the firms which demand foreign language skills. Hubbard and Ristau found that the type of skill needed keeps a close relationship with the type of foreign language. For instance, translating letters and documents was the most common need in Spanish. Reading technical documents was the most common need in German. Also, it was found that bilinguals are the most often employed in positions in marketing. Other positions with a small number but a relatively high percentage of bilingual employees are administrative services, plant operations, shipping-transportation, accounting and finance. Employers recognized the importance of technical language skills as well as an understanding of the culture and customs of the people of the country being dealt with (115-121).

Further evidence is provided in studies conducted by the Office of Research of the U.S. Department of Education. Eight major U.S.-based international corporations employing over 400,000 people worldwide (100,000 outside the U.S.A.) were interviewed. They came from diverse industries including commercial banking, electronic manufacturing, petroleum and petrochemicals production, investment banking, agriculture, personal products manufacturing and telecommunications. The conclusion from this survey

was that U.S. companies value second language proficiency. All eight companies provided language and culture training to American citizens who would work in a foreign country. Seven of the eight firms maintained personnel information about employees' second language skills and training. Five of the eight corporations affirmed that they financed foreign language training for any employee who requests it. Informants remarked that diversity in college, multiculturalism and the inclusion of cultural activities in the curricula are beneficial for students' preparation in order to work in a global economy. Similarly, employers are beginning to recognize the need for the ability to act differently in different countries as well as a cultural sensitivity as useful qualities in their internal and global operations. They need and want employees who can act according to culture, not merely talk about it.

Fixman carried out a similar study in which he identified the foreign language needs of U.S.-based corporations. A total of thirty-two interviews were conducted in nine companies of different types and sizes. The questions were directed to individuals working in human resources, training and development, to managers and people who work in public affairs. The questions mainly centered

around foreign language needs within their firms and in relation to outside parties such as costumers, distributors, suppliers and foreign governments. Among the most relevant results it was found that in general business people perceived a foreign language separated from its cultural aspect. Many interviewees pointed out that foreign languages did not represent a problem since they could be managed; when needs arose, appropriate bilinguals would be located. An interesting finding is that, in general, companies in the service sector recognized to have more need for foreign language skills than those in the industrial sector. One of the determinant factors is the geographic area. Latin America is an area where it is difficult to find individuals possessing high proficiency levels in English.

Concerning the kind of persons that need foreign language skills, it was found that the type of their position is important; individuals in upper level position have a greater need for foreign languages, since they are managing international activities. Most individuals in lower level position perceived foreign languages to be of secondary value for executives. However, a few insisted that it was of primary importance for any business to establish

empathy with a foreigner by speaking his or her language.

Concerning technical employees in international operations of U.S.-based companies, foreign languages needs were found in four main areas: plant construction, technology transfer, installation and maintenance of equipment and troubleshooting. In general the interviewed companies considered it difficult to find engineers and technical employees with foreign language knowledge in any country. One informant estimated that one in five engineers with whom he works in Latin America understands English, and some who understand English are afraid to speak it. He estimated that in each of the subsidiaries only one engineer is proficient in English.

Regarding the type of foreign languages skills needed, all interviewed partners agreed that fluency is necessary for business matters. U.S.-based companies demand foreign language fluency of their employees. Someone has to be able to negotiate, maintain working relations, assure technology transfer, construct new plants, and/or install and maintain equipment. Most of the informants quoted that their purpose was to learn basic survival skills in a foreign language. In addition, they agreed that knowing a number of languages in a superficial way

was a more realistic goal among senior managers, in order for him or her to carry out social conversation with peer colleagues abroad.

In reference to technical employees, one senior technical manager suggested that these persons do not need to write much in foreign languages, but they should be able to read newspapers and technical manuals; for these tasks, an elementary reading ability would be sufficient. Oral skills help those technicians who interact with foreign nationals. Finally, most predicted that in the future they would need more foreign language skills among all of their employees (Fixman, 25-46).

Based on the theoretical and empirical findings, the methodology for the present research project was developed and will be described in the following chapter.

3. Methodology

The purpose of the present chapter is to describe in detail how the results of the survey were obtained. The variables and hypotheses to be tested will be presented and aspects such as the preparation of the questionnaire and recollection of data will be discussed.

The first step to be taken in order to carry out the present project was to decide on the problem, whose main purpose is to find out, according to instructors' perceptions, whether the I.T.E.S.M. Campus Cd. Juárez prepares its alumni for the requirements related to their dominion of English as a Foreign Language in their professional activities in twin plants. This topic was selected based on the fact that college graduate employees face a high demand for bilingualism in one of the most important economic activities in this city: twin plants.

In order to establish a solid background to the problem, the author of the present study selected and read written material to discuss aspects such as bilingualism, English at I.T.E.S.M., and the role of twin plants in Cd. Juárez among others. These topics are presented as parts of chapters 1 and 2.

The next point to consider in the undertaking of the present study was the presentation of the theoretical framework based on the readings, relevant literature through definitions of concepts and summaries of theories as well as empirical evidence surrounding the problem. All these aspects were studied to give the theoretical fundamentation to the questions under scrutiny.

In order to address the problem selected for study, the next step to consider was to determine the appropriate methodological approach. In this case, it was found that a survey was the convenient research tool. As Sanders and Pinhey defines "a survey is a data collection method that asks questions of a sample of respondents, generally at a single point in time, using either a questionnaire or an interview" (127). A feature of a survey is that it focuses on individuals' perception and it is recognized as the best technique to obtain information about public opinion or attitudes toward an issue. This is basically true when the population can not be observed directly (127). There are some advantages and disadvantages regarding this method. A principal advantage of surveys is that they can provide detailed descriptions of populations. Surveys permit the researcher to describe large

and heterogeneous populations, including their opinions, attitudes or behavior in an accurate and economic manner (Singleton, 239 f.). Surveys can be a very efficient data-gathering technique; that is, numerous research questions can be included into a single large-scale survey. In addition, the data obtained in a completed survey may yield unanticipated findings or lead to new hypotheses. However, one of the disadvantages to consider relates to their use in explanatory research. It is much easier to establish the criteria for inferring cause-and effect relationship in experiments than in surveys. In an experiment the independent (or causal) variable is first manipulated and then variation in the dependent (or effect) variable is observed; in surveys this is a matter of interpretation since variables are measured at a single point in time. Still, surveys are less flexible in the sense that it is difficult to change the course of research after the study has begun. Once the survey is administered it is too late to make changes. Finally, surveys deal almost exclusively with reports of behavior rather than observations of behavior (Singleton, 240).

Once the research tool was determined, a questionnaire was designed to obtain information about college

graduate employees' perception concerning English necessities in their jobs. The first step to elaborate the questionnaire was to talk with four college graduates working in twin plants who graduated from I.T.E.S.M. Campus Cd. Juárez. Two American managers were also interviewed and the author of the present research conversed with two sociolinguists at the University of Texas at El Paso. Those interviews and the material read in the elaboration of the theoretical framework were the bases to have a better understanding of the linguistic situation of college graduate employees working in twin plants as well as to extract the variables and establish the hypotheses about the problem.

3.1. The variables and the hypotheses

Based on the material obtained by these procedures the following variables were established:

- a) The type of skills of English as a Foreign language required by college graduate employees in twin plants. Those skills are listening, speaking, reading and writing.
- b) The type of English demanded of college graduates which includes informal and formal English on one hand, and technical and general English on the other.
- c) The type of misunderstandings between American and

Mexican personnel due to problems concerning cultural-conventional rules in conversation.

These factors were explored in a survey during which questionnaires were administered to Mexican twin-plant employees. The results were then compared with

d) The type of skill involved in the instruction of the EFL Program at I.T.E.S.M. Campus Cd. Juárez. The skills taught are listening, speaking, reading and writing.

e) The type of English used in the implementation of the EFL program which include formal and informal English on one hand and technical and general on the other.

f) The cultural conventional rules in common conversations in the EFL courses taught at I.T.E.S.M. Campus Cd. Juárez.

Once the variables were determined, the hypotheses to be studied in the present study were established as follows:

(1) Concerning English as a foreign language, college graduate employees in twin plants think that they have a higher demand for mastering listening and speaking than reading and writing skills in their workplaces.

(2) The use of formal language among college graduate employees is thought to have a higher demand in the listening skill than in the speaking ability.

(3) According to college graduate employees' point of view, technical language is needed more often in listening/speaking than in reading/writing skills in their jobs.

(4) Most of the Mexican personnel working in twin plants perceive problems regarding the cultural-conventional rules in conversation.

(5) Based on college graduate employees' opinions, the pre-job English studies of students at undergraduate level are not sufficient for the later requirements in their jobs.

(5a) Instructors estimate that the implementation of the EFL program at I.T.E.S.M. Campus Cd. Juárez does not sufficiently prepare students for the high demand of listening/speaking abilities required in twin plants.

(5b) Instructors perceive the formal English taught at I.T.E.S.M. does not appropriately cover the formal English required by college graduate employees in the listening and speaking abilities.

(5c) Instructors think that the instruction regarding the EFL program does not sufficiently provide for the high demand of technical language required by college graduates in the EFL oral and non-oral abilities.

(6) According to instructors' point of view, the imple-

mentation of the EFL program at I.T.E.S.M. Campus Cd. Juárez handles little information about cultural-conventional rules required by individuals working in twin plants.

3.2. The preparation and administration of the questionnaire for employees

Once the hypotheses were determined, the questionnaire was constructed and administered to college graduate employees. The questionnaire elaborated for this study consists of twenty-five questions distributed in six sections (See Appendix B).

Section one was designed to determine demographic characteristics of the subject sample. The information elicited includes sex, age, professional title and occupational status at work (questions ## 1, 2, 3 and 4), as well as some information to be provided about his/her previous preparation in English. The aspects to be under study through questions ## 5, 6, 7 and 8 are related to the manner employees learned English: the formal or informal way; the length of time they worked on the acquisition of English; how intensely they have worked on the foreign language; and the perception from employees of the useful-

ness of their pre-job English studies respectively.

Sections two, three, four and five deal with the four types of English skills (listening, speaking, reading and writing) required. The questions in the survey were designed to determine the type of English (formal/informal and technical/general) needed by college graduate people and the type of skills most demanded. In order to determine which English skill was most demanded, questions that begin with the "how often" expression were included in each section; the scale used to measure frequency in this survey is A: *Daily* in which employees need to practice a specific type of language 5 times a week. B refers to 2 to 4 times per week. C means once per week. D: *Never* alludes to zero. The items to measure frequency are ## 10, 11, 12, 14, 16, 18, 20 and 22.

The items that gauge formal language in listening and speaking are 9, 10, 12 and 13.

There are some questions that are directed to obtain information about the situations in which a specific type of language is used. Those questions were designed taking into consideration what some authors like Brown and Yule (1983) mention about the language functions; one of them is the *transactional* function which is message-oriented.

Examples of this are instructing, giving directions, explaining, describing, etc. (Morley, 86). For instance, item # 9 intends to obtain information about the situations in which formal language is used in listening. Concerning informal listening it is assumed that those who answered question # 10 either with C or D (seldom, never) use this type of ability. Item # 13 tries to detect situations in which formal language is needed in speaking. Regarding speaking no questions were included to measure the frequency of use of informal language since it is assumed that this is commonly used.

For writing skill, the questions that deal with formal language is 21. It gives information about the situations in which this type of language is used. There are no questions to measure formal language in reading and writing since it is assumed that this type of language is generally used in the type of documents college graduates have to read and write. The questions related to informal language in reading are ## 16 and 18j; the item to gauge informal writing is question # 20.

Regarding technical language, the numbers that address this aspect are items 11, 14, 15, 17, 18 and 22. Although these questions, except # 15, intend to measure

frequency, they also make reference to the situations where technical language is used. Question # 15 is specifically designed to obtain information about the area where technical language is used. General language is supposed to be used in every-day situations; for this reason, reading was the only ability for which the frequency of general language use was measured. In order to obtain suggestions about the EFL Programs from the employees' point of view, question # 23 was included.

The last section in the questionnaire deals with cultural-conventional aspect of language due to its relevance in communication. This aspect is of great concern to authors like Richards who stresses the importance of the interactional and conventional characteristics of language, mainly in conversation (247-248). This section includes an open-ended question intended to learn about the difficulties college graduates have concerning the cultural-conventional aspect of language, specifically in conversation. First, employees are asked whether they have had cultural-conventional problems in question # 24, and then they are asked to describe their experiences in question # 25.

It is important to notice that the elaboration of

this questionnaire required the revision and modification of the first one. It was necessary to make some changes that include the elimination of some questions. For instance, in the first questionnaire item # 7 was excluded since the question referred specifically *talking to a native speaker*. However, the person to whom a twin-plant employee may talk is not necessarily a native speaker. In addition, question # 8 was omitted since it is assumed informal language is commonly used; it was not necessary to elaborate specifically a whole question for it and it was thought to obtain information about this type of language from the question designed for formal language instead. Question # 13 was eliminated because it was too general in order to determine the type of language (formal, informal, technical, etc.) college graduate employees need to use. Similarly, item # 14 was excluded since it was considered the situations mentioned in the question would not provide relevant or useful information. Finally, item # 15 was replaced by question # 13 in the second questionnaire where it focuses more on the tasks employees perform in their jobs.

The second version of the questionnaire was written in Spanish and English. The complete questionnaire is

provided in Appendix B.

Originally, the questionnaire was thought to be applied to professionals graduated from I.T.E.S.M. Campus Cd. Juárez who work in twin plants. However, the population working in that area was not large enough to be considered as a sample. It was found that less than ten people worked in twin plants. The majority worked in banks or with her/his parents in family business. Other college graduates emigrated to other cities, and some of them were not found. For this reason, the subjects were taken from all college graduates working in twin plants and not necessarily graduates from I.T.E.S.M.¹

The administration of the questionnaire was conducted at the college graduate employees' workplaces. Use of other means such as phone or mail etc. were not considered a reliable process to obtain trustworthy results. The companies visited to interview college graduates were selected randomly (twelve out of two hundred sixty-seven). The sample size which comprehends forty employees was determined under the criteria of *convenience sampling* that

¹ Coincidentally, the sample under study includes four college graduates from I.T.E.S.M. However, the study does not conceive a cause-and-effect relationship between the instructors' perception regarding the 1995 EFL Program and the I.T.E.S.M. college graduates' opinions about their demands.

is a process in which the researcher selects a number of cases that are conveniently available (Singleton, 153). In this case factors such as distance was considered. Industrial centers where twin plants are located are far away from each other. Another factor to take into account was time. Making appointments, visiting twin plants and administering more surveys are time-consuming activities which would prolong the study even more. In addition the economic aspect which comprehends expenses such as phone calls, gasoline in order to visit different companies and larger number of copies of surveys were considered.

The first step done to confer with people was to talk with them by phone explaining the nature of the project. Once they were willing to collaborate, an appointment was scheduled. Four to five people were selected at random in each company. The first pilot run was tested during June 1995; this questionnaire is provided in Appendix A. In this case the sample was too large (forty people) to handle it as a first pilot run and errors in the design of the questionnaire were detected. Based on empirical experience and literature, the questionnaire was revised and modified. The final version of the questionnaire was completed by the end of October of the same year and it was

administered to other forty subjects. The author personally administered the survey which lasted from 20 to 35 minutes for each informant. The informants were allowed to glance over the questionnaire before they decided to participate. The administration of the survey was conducted in Spanish, in a semiformal style determined mainly by the topic of the survey.

The questionnaire was handled with absolute anonymity.

Only the second version of the questionnaire was taken into consideration for the results. Once the data were collected, the results of the employees' demands was defined and each of the hypotheses established were evaluated accordingly. The results for each hypothesis were described in words, tables and figures.

3.3. The preparation and administration of the questionnaire for teachers

The next part of the present project consisted in the evaluation of the instructors' perception regarding the implementation of the EFL programs at I.T.E.S.M. Campus Cd. Juárez. Based on the results obtained from the employees' questionnaire and the author's experience, the hypotheses about instructors' opinions on the usefulness

of the instruction of the EFL Program at I.T.E.S.M. were established. Successively, the questionnaire for EFL teachers at I.T.E.S.M. Campus Cd. Juárez was designed to find out how the employees' perception regarding their necessities are reflected in the instructors' point of view about the implementation of the EFL Program. The variables to be explored were the same ones used in the questionnaire for the employees; that is general, formal, informal and technical terms were used to measure the type of language needed with more frequency in the instruction of the EFL Program. Besides this, a cultural-interactive situation section as well as a suggestion part were included in order to get information about those issues. The scale to measure frequency used in this survey is *high, medium, low and none*. *High* refers to the frequency with in which the teacher practices or encourages a specific type of language more than ten times during one class hour; *medium* alludes to five to ten times, *low* means less than five times and *none* refers to zero. This scale was explained to each instructor during the interview.

The questionnaire was administered to eight out of ten EFL teachers in this campus. This criterion was used in order to have one instructor's point of view for each

of the courses since some instructors teach two or three courses. Consecutively, instructors were asked about their willingness to collaborate in the present study and received explanations about the nature of the research. Once they agreed to collaborate, the author of the present thesis interviewed the teachers. It took twenty to thirty minutes to administer each questionnaire individually.

Later, the results of what instructors perceive is being taught in the I.T.E.S.M. EFL Program were established and the comparison of the employees' view about their needs with the instructors' opinions about the offerings regarding the instruction of the EFL program as well as the evaluation of the hypotheses were carried out.

Detailed information about the steps taken in this study have been presented in this chapter in order to give a comprehensive background to the procedures accomplished and provide a better understanding of the results presented in the following section.

4. Presentation and discussion of the results

This section deals with an explicit description of the data that reflect the major findings from the questionnaires. In addition, an evaluation of the hypotheses will be presented.

4.1. Presentation and discussion of the results obtained from employees' questionnaire

As mentioned before, the first eight items in the survey are directed to obtain personal information. These will be reported on first. The results from question # 1 show that the sample under study is composed of twenty-two males and eighteen females. Table 1 shows these findings. These values are reflected in a 55% for male population

Table 1
Distribution of the Informants According to Sex

Specification	#	%
Male	22	55
Female	18	45
Total	40	100

and 45% for female sample. See Figure 1.

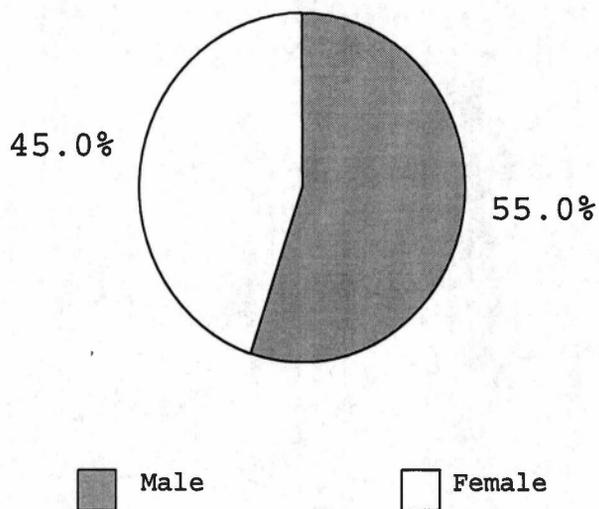


Figure 1

Frequency Distribution of Male/Female
Population in Percentages

Concerning the age of the respondents, results from question # 2 demonstrate that it fluctuates between twen-

Table 2
Data from Personal Information

=====			
Variable	Specification	#	%

Age	23-32	33	82.5
	33-42	7	17.5
Total		40	100.0
=====			

ty-three and forty-two years. There are thirty-three subjects whose age is between twenty-three and thirty-two years and seven respondents who are between thirty-three and forty-two. As can be seen in Table 2 and Figure 2, these groups represent 82.5% and 17.5% respectively.

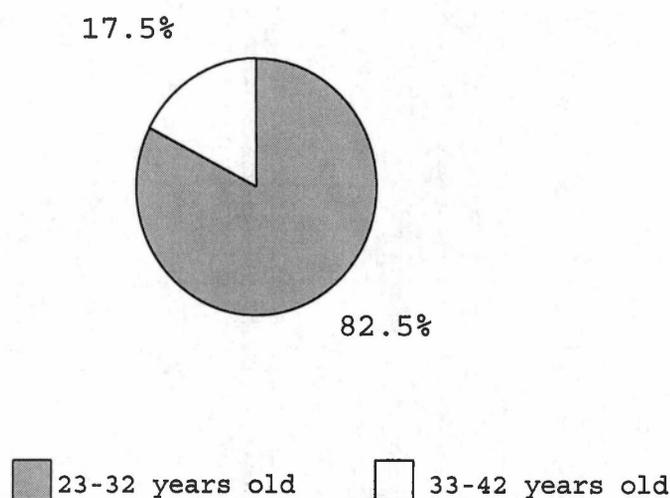


Figure 2
Frequency Distribution of Employees
According to Age

The information obtained from question # 3 about their educational background reveals that sixteen of the interviewed people (40%) have the title of industrial engineers. The second-largest group (eleven subjects or 27.5 %) is made up of accountants and an additional 15% of the sample (six), have their major in Business Administra-

Table 3
College Graduates' Educational
Background

Specification	#	%
Industrial Engineer	16	40.0
Accountant	11	27.5
Business Administrator	6	15.0
Electric Engineer	5	12.5
Computer Engineer	2	5.0
Total	40	100.0

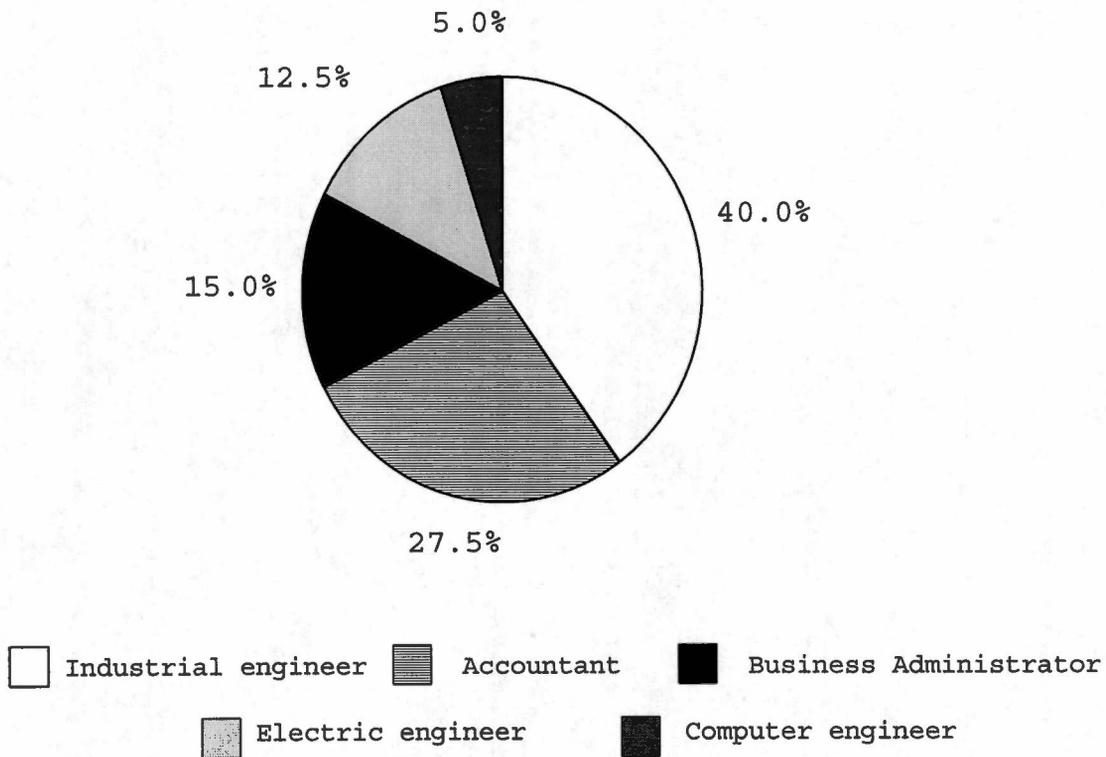


Figure 3

Frequency Distribution of Respondents
Based on their Education

tion. It is observed that 12.5% of the sample, or five of them, are electric engineers and the rest (two individuals) have the title of computer engineers; that is 5% of the total. See Table 3 and Figure 3.

As can be observed the college graduate employees' occupational activities vary. The answers to question # 4 shown in Table 4 and Figure 4 demonstrate that six people or 15% of them work as industrial engineers and five em-

Table 4
Occupational Activities of
College Graduates

Occupational Activities	#	%
Industrial engineer	6	15.0
Supervisor	5	12.5
Accountant	4	10.0
Accountant assistant	4	10.0
Manager	4	10.0
Process engineer	3	7.5
Personnel manager	3	7.5
Manufacturing engineer	3	7.5
Personnel supervisor	2	5.0
Maintenance engineer	2	5.0
Analyst	1	2.5
Design engineer	1	2.5
Environment controller	1	2.5
Computer engineer	1	2.5
Total	40	100.0

employees or 12.5% work as supervisors. There are four accountants, four accountant assistants and four managers which is 10% for each. Three subjects work as process engineers and three more as personnel managers; other three additional subjects work as manufacturing engineers. Similarly two subjects--5% each--work as personnel supervi-

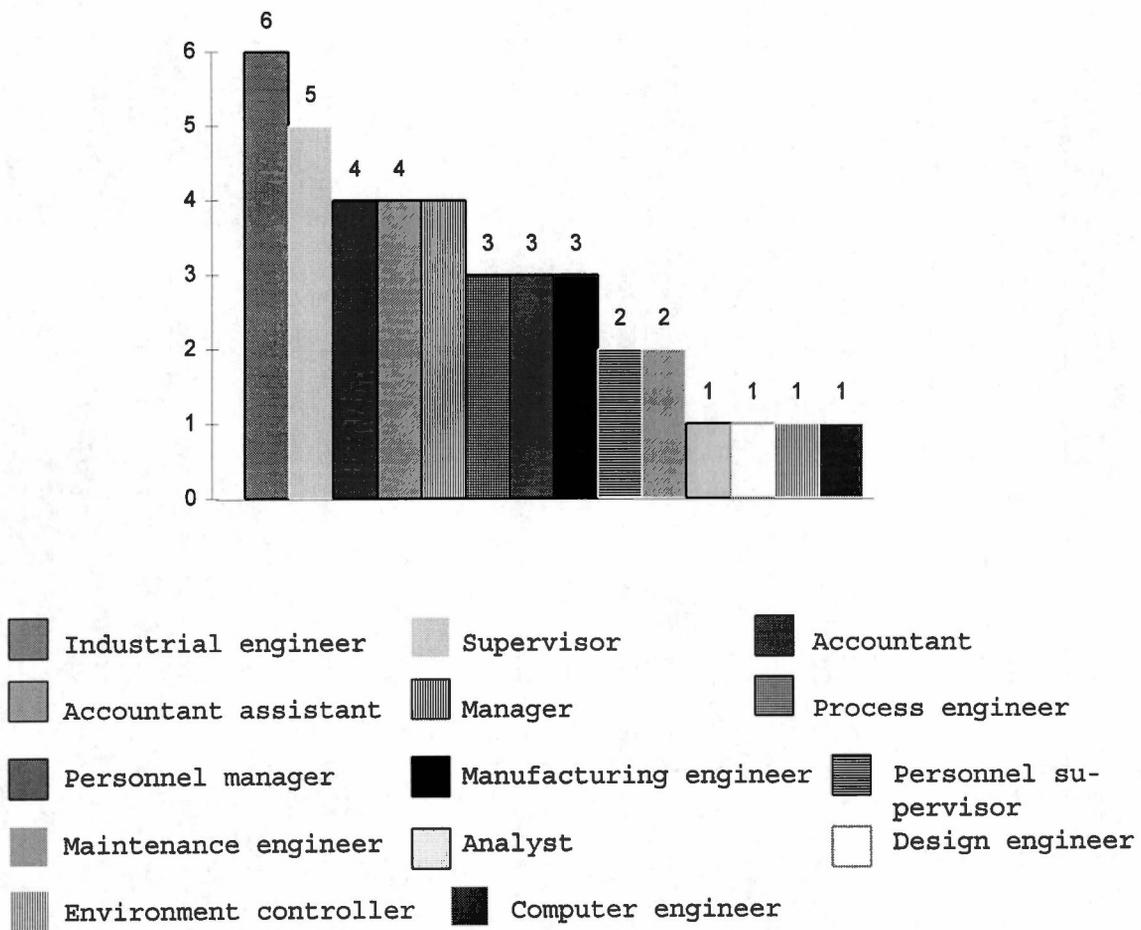


Figure 4

Frequency Distribution of College Graduates' Occupational Activities

sors and two others as maintenance engineers. Finally, there are an analyst, a design engineer, an environmental controller and a computer engineer respectively. Each of them accounts for 2.5% of the sample.

Data on English acquisition include information about the way the college graduates learned English. Results from question # 5 show that more than a half (26 persons or 65%) learned English in schools or universities. Eight persons, who are 20% of the employees, stated that they acquired it in informal situations and only six out of 40 (15%) said that they had learned English through formal instruction as well as in informal situations. See Table 5 and Figure 5.

Table 5
EFL Learning Background

Mode	#	%
School and university	26	65
Informal situation	8	20
Both	6	15
Total	40	100

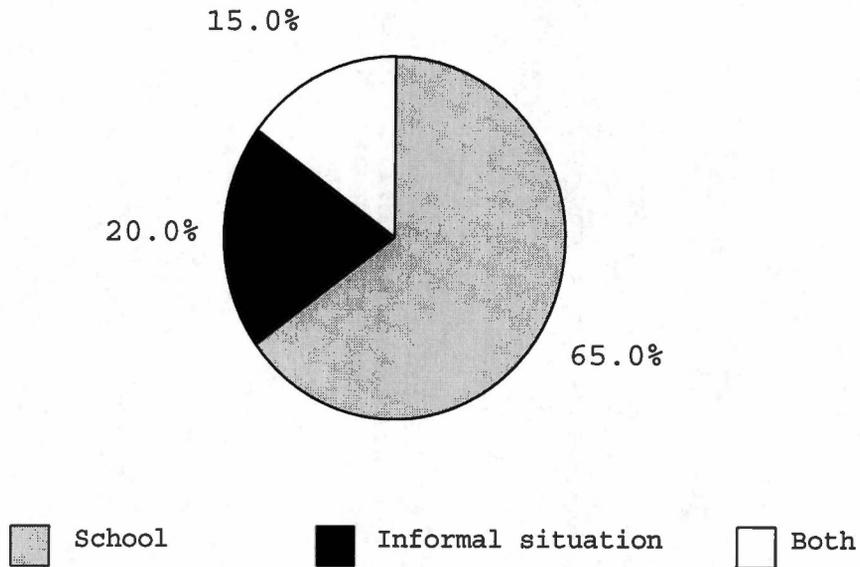


Figure 5

Frequency Distribution of College Graduates' EFL Learning History

Among those persons who said that they had learned English through formal instructions, it was found--from results obtained in question # 6--that thirteen employees studied English for one year; the number of subjects who studied for a period of two years is seven, and only five of the respondents studied English for three years. Those persons who studied English for four years are three and those who studied for five years, are two respondents. Only two persons studied for more than five years; one for six and another for seven years. These results are shown in Table 6 and Figure 6. As can be seen, those subjects

Table 6
Amount of Time Devoted
to English Classes
by 32 Twin-Plant
Employees

=====		
Years	Persons	
	#	%

1	13	40.63
2	7	21.87
3	5	15.62
4	3	9.37
5	2	6.25
6	1	3.12
7	1	3.12

Total	32	99.98
=====		

that studied for one year make up 40.63% of the sample. The percentage of those who studied for two years is 21.87. Interviewees who studied for three years are 15.62% of the sample. The percentage of those who studied English for four years is 9.37% and those who studied it for five years is 6.25. The lowest values are for those subjects who studied for six and seven years; both together make up 6.25% of the sample.

The intensity by which college graduates studied English was also reported. Based on the information obtained from question # 7, of the thirty-two persons who had stud-

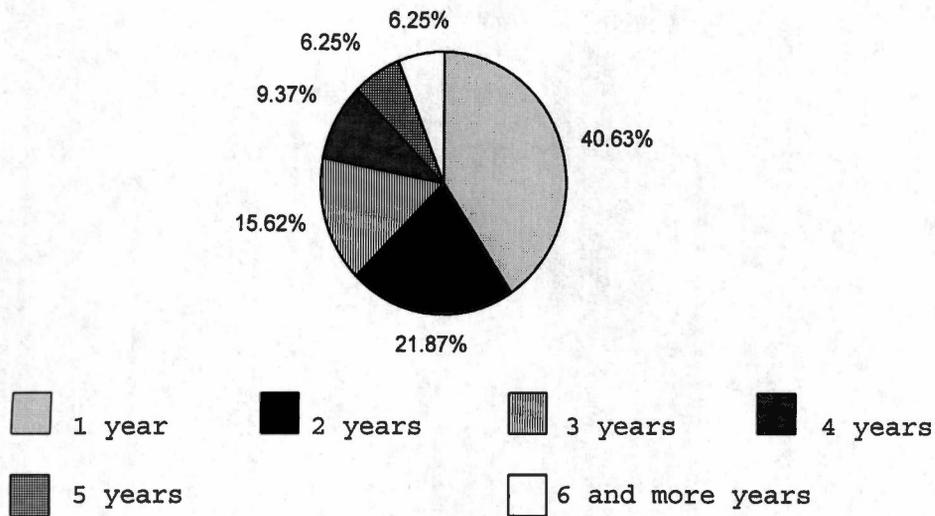


Figure 6

Amount of Time Devoted to English Classes
by Employees in Twin Plants

ied English, fifteen (46.9%) stated that they had only worked a little on their English. Those subjects who said they did it "more or less" were twelve or 37.5%. Only

Table 7
Intensity of EFL Studies
in College Graduates

Mode	#	%
Little	15	46.9
More or less	12	37.5
Intensely	5	15.6
Total	32	100.0

five persons worked intensely on their language studies. As can be seen in Figure 7, the period of time devoted to studying English by the majority of the subjects is short and the number of persons that have studied English inten-

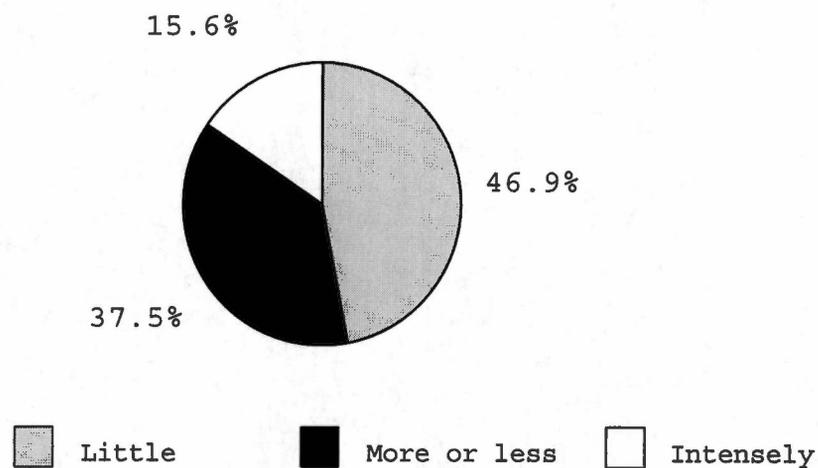


Figure 7

Frequency Distribution of EFL
Studies' Intensity

sely is restricted to a 15.6%.

Taking these data into account, the next topic has to do with the college graduate employees' perception about the types of skills that are mostly demanded from people working in twin plants. Regarding this, hypothesis # 1 states: Concerning English as a foreign language, college graduate employees in twin plants think that they have a higher demand for mastering listening and speaking than reading and writing skills in their

workplaces. Based on employees' perception, the results show that listening and speaking are more necessary in 54.48% of the sample than reading and writing (45.51%) as presented in Figure 8. The answers to questions ## 10, 11, 12, 14, 16, 18, 20 and 22 shown in Table 8 and Figure 9, support the expectation from Hypothesis # 1. For instance, in letter A--daily--, percentages are higher in listening/speaking (12.758%) than in reading/writing (8.620%). The same occurs in letter B--2-4 times a week-- where oral skills have a slightly higher demand (105 times

Table 8
Frequency of Skills Demands by College
Graduate Employees in Twin Plants

Frequency	Listening and Speaking		Reading and Writing	
	#	%/580	#	%/580
A	74	12.758	50	8.620
B	105	18.103	103	17.758
C	135	23.275	94	16.206
D	2	.344	17	2.931
Total	316	54.480	264	45.515

A = Daily B = 2-4 times a week C = Once per week D = Never

or 18.103%) than written skills (103 times or 17.758%). Similarly, in letter C--once per week--listening/speaking have higher values (135 times or 23.275%) than in reading/writing (94 times or 16.206%). Regarding letter D--never--the values for listening/speaking are 2 times or .344% and for reading/writing the values are 17 times or 2.931%. Based on these results it can be stated that hypothesis # 1 which expected that listening/speaking would have a greater demand than reading/writing abilities is proved. Nevertheless, the data demonstrate only a narrow difference between listening/speaking (54.480%) and

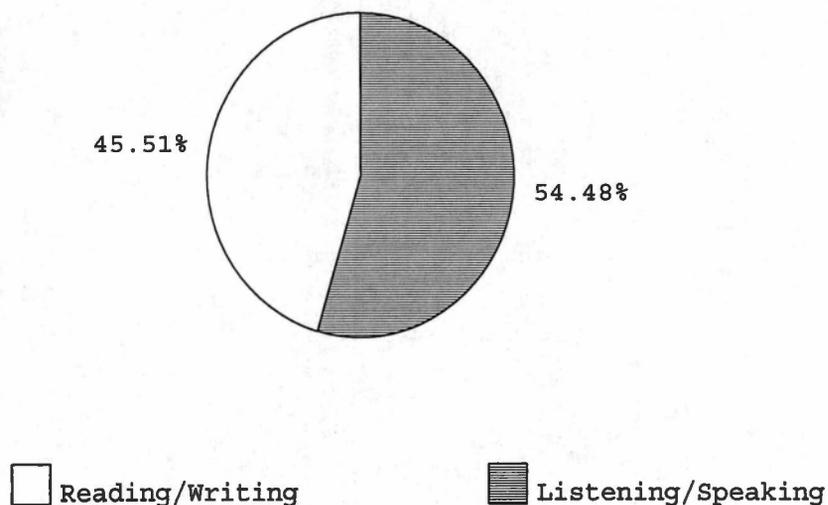


Figure 8

Frequency Distribution of Need for Oral
and Non-oral Skills

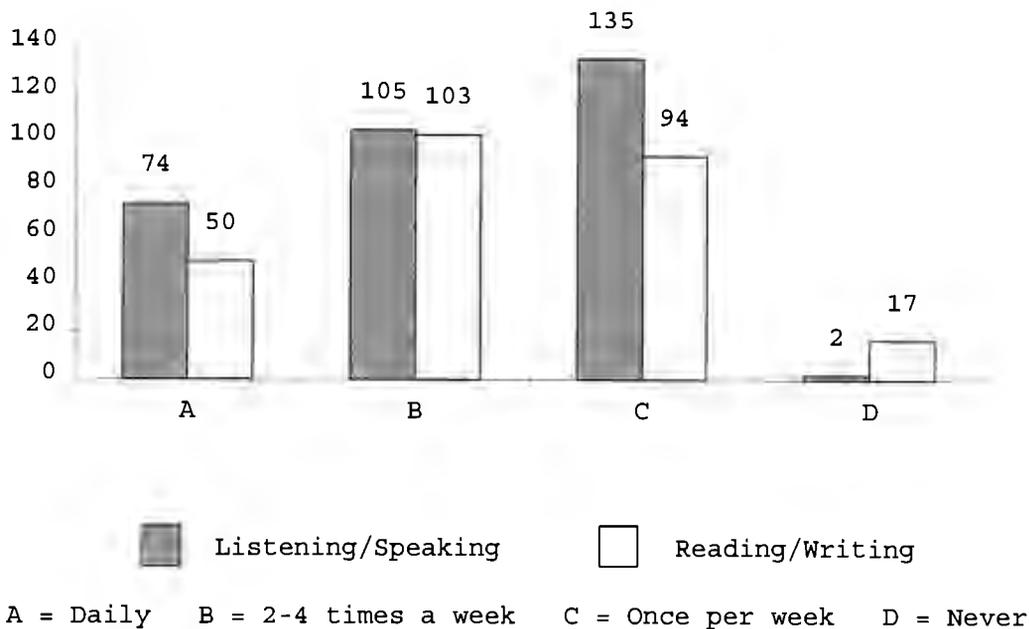


Figure 9

Distribution of the Frequency with
which Skills are Required

reading/writing (45.515%) ability needs. Individuals affirm that they have to practice those abilities almost with the same frequency.

At this point it is important to mention that the data of reading and writing skills were obtained from questions that do not specify that they refer to the English language. However, the questions concerning listening and speaking do include this feature. For this reason it is assumed that at this point of the questionnaire the respondent should be familiarized enough to take for granted that all questions are elaborated based on the use of the English language.

An interesting aspect regarding non-oral skills is the one concerning reading, for which question # 19 tries to find out the purpose for reading from college graduates. It was noticed that employees remarked that they need to read more often in order to be informed (28 times or 45.16%). The second major reason to read English is to follow instructions and steps (25 times or 40.32%), whereas reading in order to translate the material to other people occupies the third place (9 times or 14.51%). See Table 9 and Figure 10.

Table 9
Purpose of Reading English
among College Graduates

Specification	#	%
To be informed	28	45.16
To follow instructions and steps	25	40.32
To translate to other people	9	14.51
Total	62	99.99

Regarding hypothesis # 2 about the formal use of language, it is expected that the use of formal language among col-

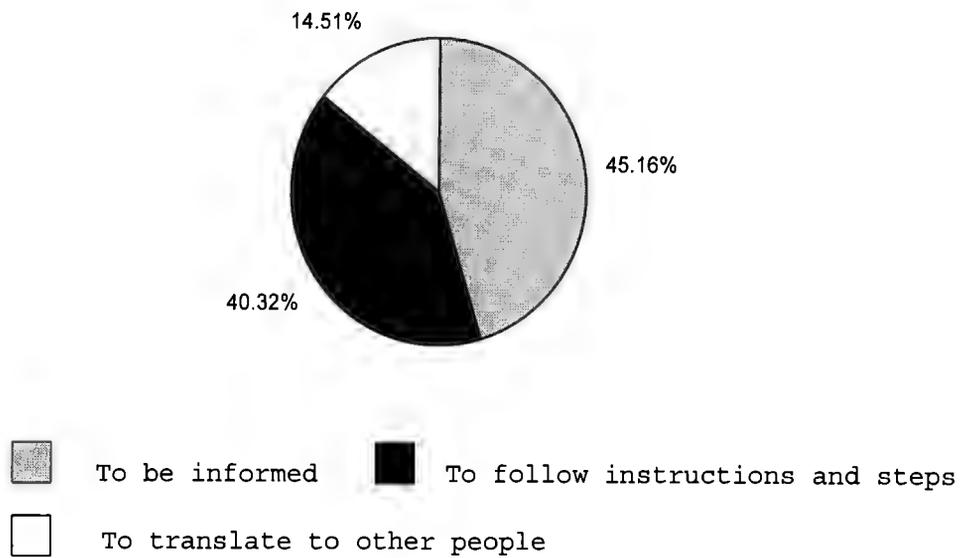


Figure 10

Frequency Distribution of College Graduates' Reading Purpose

College graduate employees is thought to have a higher demand in the listening skill than in the speaking ability. The informants reported that this type of language occurs more often in listening (67.47%) than in speaking (32.52%). This statement is based on the data obtained from questions ## 10 and 12 presented in Table 10 and Figure 12 in which it is shown that in A--daily--listening of formal English has higher values (32 times or 26.016%) than speaking (8 times or 6.504%). Similarly, in letter B--2-4 times a week--college graduates affirmed that they need formal language more often for listening (21 times or 17.073%) than speak-

Table 10
 Frequency of Demand for Formal Language
 in Different Skills

Frequency	Listening		Speaking	
	#	%/123	#	%/123
A	32	26.016	8	6.504
B	21	17.073	20	16.260
C	30	24.390	10	8.130
D	0	0.000	2	1.626
Total	83	67.479	40	32.520

A = Daily B = 2-4 times a week C = Once per week
 D = Never

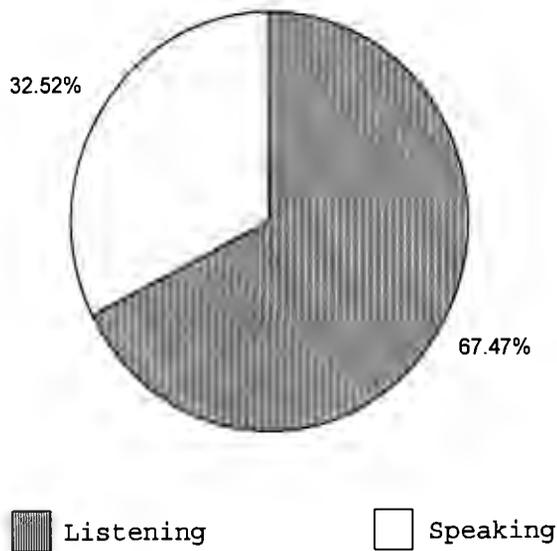


Figure 11

Frequency Distribution of Need of Formal
 Language in Different Skills

king (20 times or 16.260%). In letter C--once per week--, the same occurs, that is formal language is thought to be more demanded in listening(30 times or 24.390%) than in speaking (10 times or 8.130%). In letter D--never-- reading has a value of 0 and speaking of 2 or 1.626.

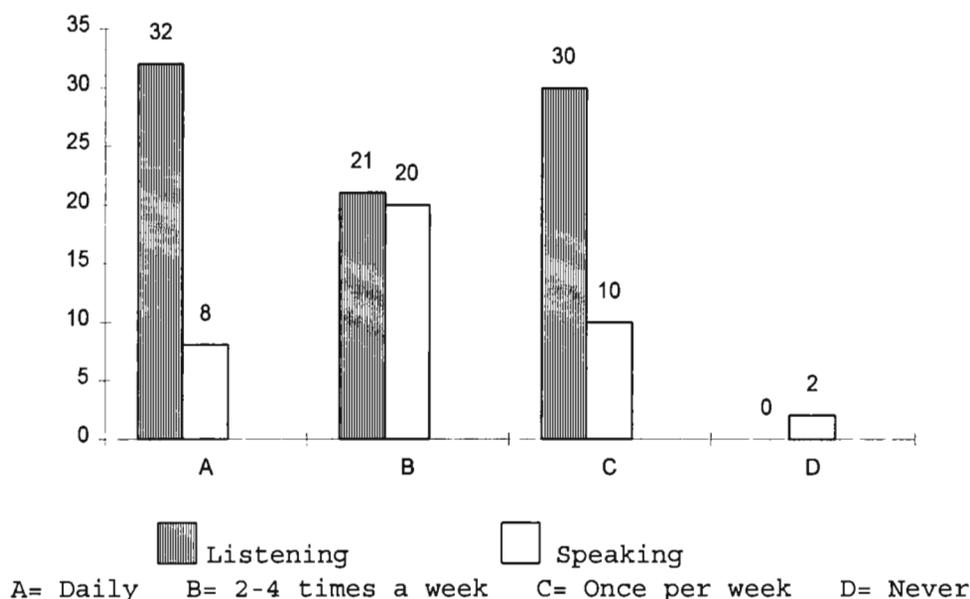


Figure 12

Frequency Distribution of Demand for Formal Language in Different Skills

It is assumed that those who answered question # 10 with C or D frequencies estimate that they use informal language in listening; data show logically opposite in the item just mentioned, that the value on formal listening in the 'once per week' and 'never' frequency is 30. According to employees' point of view, this number reveals that

informal language in listening is commonly used, if it is compared with the frequencies obtained in the same item (10) where A frequency has a value of 32 and the value of B frequency is 21. Based on the answers given on this item, it is observed that the situations with more occurrence in informal language are in meetings and on the phone. For reading and writing skills, questions ## 16, 18j and 20 were designed to measure informal language. The information provided in Table 11 is based on questions ## 16 and 20 only since there were no answers for 18j. The data reveal that both abilities have high values for C--once per week--. The data for reading are 15 or 37.5%

Table 11
Frequency of Demand for Informal
Language in Reading and Writing

```

=====
Frequency  Reading      Writing
           #          %          #          %
-----
A           4         10.0         3         7.5
B          12         30.0         4         10.0
C          15         37.5        18         45.0
D           9         22.5        15         37.5
-----
Total       40         100.0        40        100.0
=====

```

A = Daily B = 2-4 times a week C = Once
per week D = Never

and for writing 18 or 45%. Also, letter D--never--shows the same pattern; for reading, the value is 9 or 22.5% and for writing 15 or 37.5%. Contrary to this, reading and

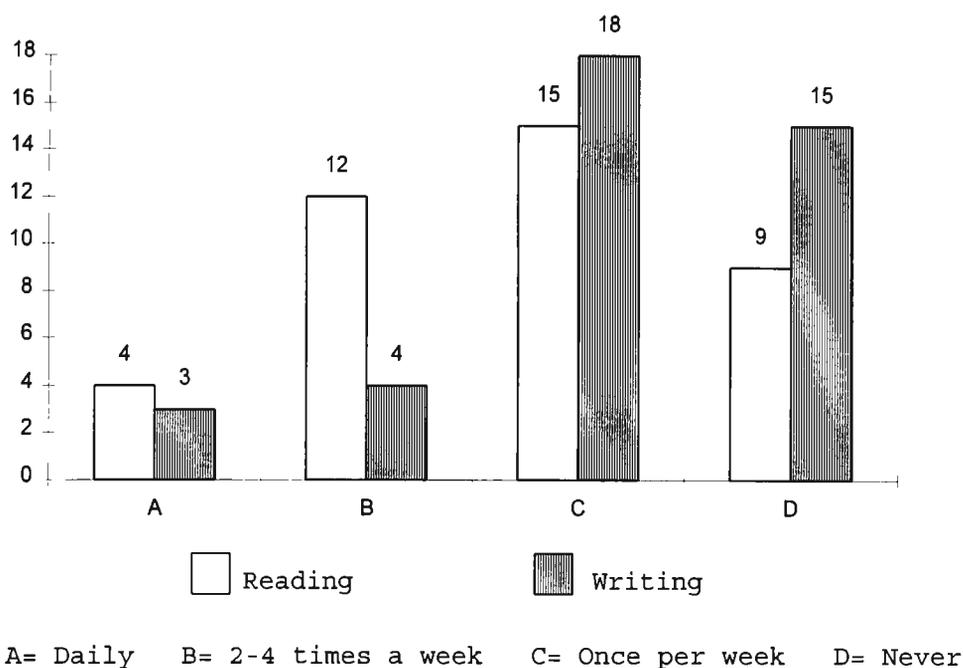


Figure 13

Frequency Distribution of Need of Informal Language in Reading and Writing

writing reveal lower values in letters A--daily--and B--two to four times per week. For reading, the values are 4 and 12 respectively or 10% and 30%. For writing, the values are 3 and 4 for the same frequencies. The corresponding response percentages are 7.5 and 10. These results demonstrate that informants affirm that informal language is not often used in reading and writing.

The type of technical language required by respondents was also considered. Hypothesis # 3 about this issue expects that according to college graduate employees' point of view, technical language is needed more often by college graduate employees in listening/speaking than in reading/writing skills. The data from this study obtained from questions ## 11, 14, 18, and 22 show in Figure 14 that, overall, employees perceive that the demand for technical language in listening and speaking is practically the same than in reading and writing. This assertion is supported by the detailed information provided in Table 12 and Figure 15 according to

Table 12
Demand of Technical Language in the
Different Skills

Frequency	Listening and Speaking		Reading and Writing	
	#	%/387	#	%/387
A	34	8.785	39	10.077
B	64	16.537	84	21.705
C	95	24.547	71	18.346
D	0	0.000	0	0.000
Total	193	49.869	194	50.128

A = Daily B = 2-4 times a week C = Once per week D = Never

which the demand of technical language is somewhat higher (39 times or 10.077%) in reading and writing than in listening and speaking (34 times or 8.785%) on a daily basis. The same pattern occurs for "2-4 times a week" (84 times or 21.705% > 64 times or 16.537%). However, as can be observed in Figure 15, the most striking difference exists in the demand for technical language in listening/speaking (95 times or 24.547%) over reading/writing (71 times or 18.346%) on the basis of practicing those abilities once per week. These findings demonstrate that the hypothesis which supposed that listening/speaking are more likely to

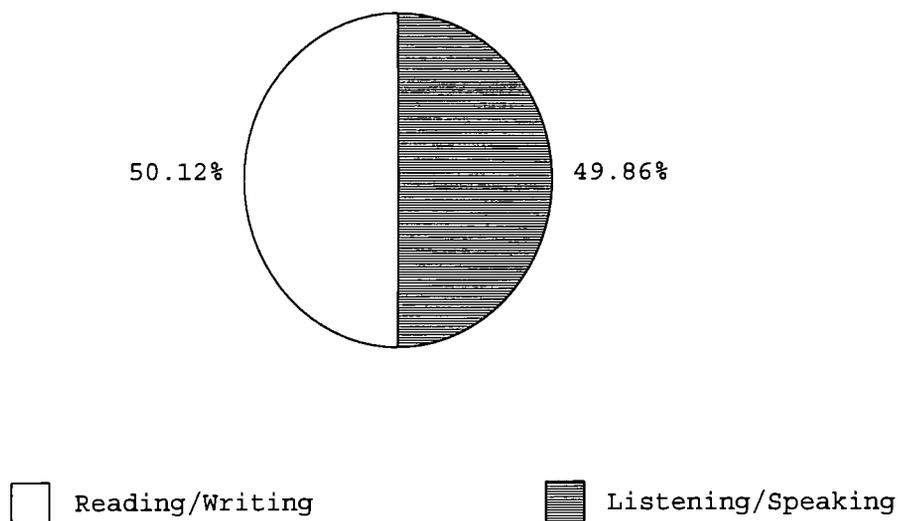


Figure 14

Frequency Distribution of Need for Technical Language
in Listening/Speaking and Reading/Writing

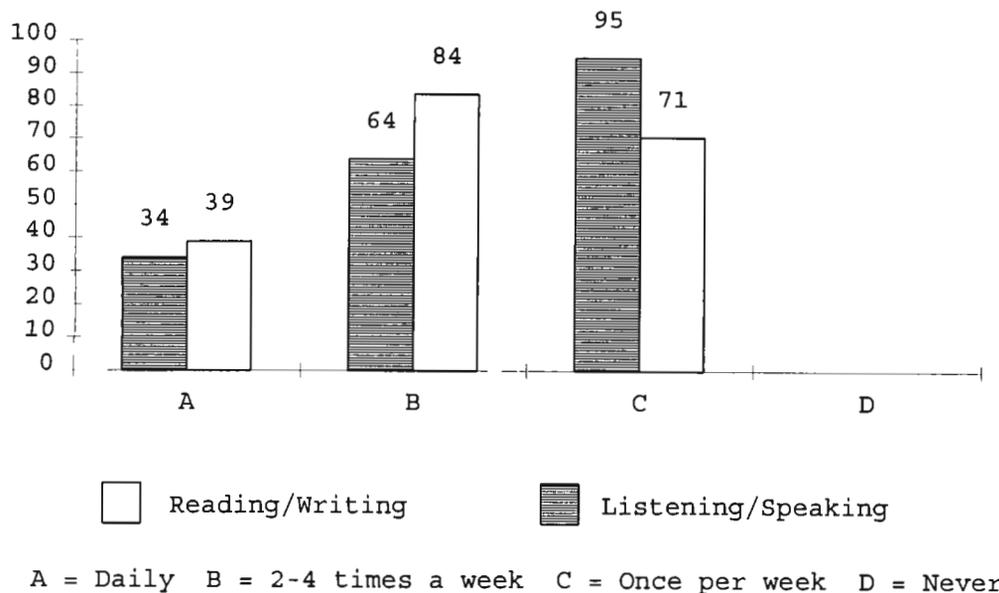


Figure 15

Frequency Distribution of Demand for Technical Language in Oral and Non-oral Skills

include technical language than reading/writing has not been confirmed.

The use of technical language also varies according to the area college graduates work in. Data obtained from question # 15, shown in Table 13 and Figure 16, for instance, reveal that five (12.5%) informants work in the medical area and the same number in the area of television. Four (10%) people use technical language concerning batteries; other four respondents claimed that their work is related to plastic lenses and the same number of sub-

jects have to do with automobile parts and vacuums. Two groups of three people each work in other areas such as

Table 13
Areas in which Technical
Language is Used

Specification	#	%
Medical	5	12.5
Television	5	12.5
Batteries	4	10.0
Plastic lenses	4	10.0
Automobiles	4	10.0
Vacuums	4	10.0
Lamps	3	7.5
Recycling	3	7.5
Machinery plans	2	5.0
Environmental laws	2	5.0
Sewing	2	5.0
Airline	2	5.0
Total	40	100.0

lamps and recycling. Each group make up a 15% of the sample. A smaller number of persons(two for each) work in machinery and plans, environmental laws, sewing and the airline area respectively. These correspond to 5% for each area. This information is not directly linked to any hypothesis. Nevertheless, it seemed interesting and may

be the starting point for further research projects.

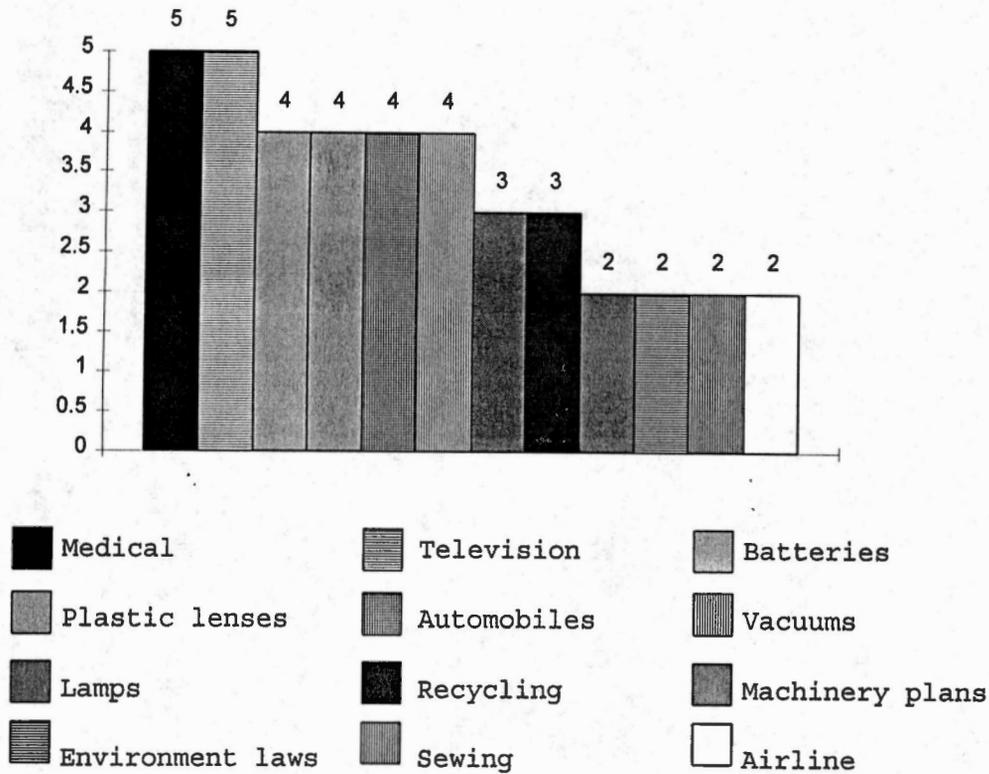


Figure 16

Frequency Distribution of Areas of Technical Language Where College Graduates Work

Another aspect of language to be discussed, refers to its conventional use. Hypothesis # 4 expects that Most of the Mexican personnel working in twin plants perceive problems regarding the cultural-conventional rules in conversations. Based on results obtained from question # 24 and shown in Table 14, it is noticed that more than one third of the sample (fourteen people) declared they had never observed this

Table 14
 Perception of Cultural-
 Conventional Problems

Specification	#	%
Yes	26	65
No	14	35
Total	40	100

type of problem, but twenty-six people (65%) answered affirmatively. So, the hypothesis is proved, basically true. Among the most common opinions given to question # 25, it is found that Americans like to go straight to the point and to be clear in the ideas expressed, whereas Mexican people like to go around the topic and come to the point later. By the same token, informants mentioned they had problems in meetings because Americans do not like to be interrupted while they are talking. Informants emphasized they did not know about the appropriate time to participate and to what degree. Another observation indicates that, in the workplace especially, Americans with a high position in the company, such as managers, use to talk with blue-collar workers if it is necessary, whereas Mexican executives in the same position find this inappro-

priate; they go over intermediaries. Another problem related to the conventional-cultural aspect is the one concerning courtesy rules.

Americans usually tend to behave in a very polite way and sometimes they do not really mean what they say. An example of it is given when they invite Mexicans somewhere, even if they do not really expect that the event is going to take place. Inviting someone someplace can be taken as a mere courtesy rule by American people, but people from another culture may actually expect the event to occur. This is just another example of a cultural-conventional problem people from different cultures are exposed to. Another example related to this kind of problem is the following: In one of the visits the author of the present study made to a twin plant, a conversation among two Mexican people and an American took place during lunch time. It was observed that during the interaction with the American, one of the Mexicans knew how to start and end the conversation as well as to handle the topics most appropriate for that situation. The other person, on the other hand, although he could communicate in English, did not know what should be said next in the conversation and most of his expressions in the foreign language were gram-

matical rather than of cultural-conventional communicative use.

These situations mentioned by respondents emphasize once more the importance of the cultural-conventional aspect of language and its relevance in the communication act and consequently in what Bixler (5) calls the economic cost of it.

The last hypothesis (# 5) to be discussed is based on the data obtained from the answers to question # 8 and suggests that based on college graduate employees' opinions the pre-job English studies of students at undergraduate level are not sufficient for the later requirements in their jobs. Table 15 shows that fifteen people (46.9%) think those studies prepared them only in a partial way and fourteen (43.8%) of the informants think their previous preparation in the foreign language did not help them at all. Only three people (9.3%) answered that pre-job English studies helped them sufficiently in their jobs (See Figure 17). As can be seen, the general perception of the usefulness of English studies reflects a poor and negative relationship between what college graduates have studied in the EFL area and their job necessities.

Informants were also asked to offer suggestions for

Table 15
 The Manner Pre-Job English
 Studies Employees' Pre-
 pare for Job Require-
 ments

Mode	#	%
Partially	15	46.9
No	14	43.8
Completely	3	9.3
Total	32	100.0

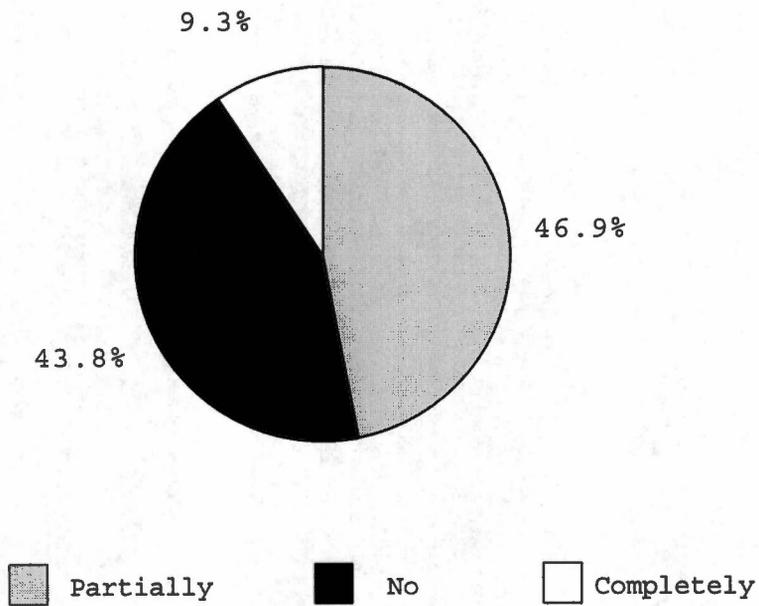


Figure 17

Frequency Distribution of How EFL-Studies
 Prepare Employees

the English teaching programs. Data obtained from question # 23 show that only thirty-two (80%) people responded to it. There were in total ninety-three suggestions. Table 16 and Figure 18 show that the majority of the proposals (19 of them or 20.43%) were addressed about the necessity to include more conversation in the programs. This coincides with the high demand detected with respect to this skill. Three people (3.22%) proposed listening should be emphasized but nobody mentioned reading and writing. Fifteen opinions (16.12%) stressed that English programs should include everyday situations. The way in

Table 16
Type of Suggestions for EFL Teaching
Programs Made by Employees

Type	#	%
Conversation	19	20.43
Homogenization in EFL groups	16	17.20
Everyday situations	15	16.12
Smaller groups	15	16.12
Inclusion of Technical language	11	11.82
Reduction of Grammar	10	10.75
Preparation of instructors	4	4.30
Focus on Listening	3	3.22
Total	93	99.96

in which language is handled should be real and practical. In other words, what students study in class and in the textbook does not correspond to the situations they face at work. Sixteen of the recommendations (17.20%) were about forming groups of students with the same major; accountants should study together and engineers in another

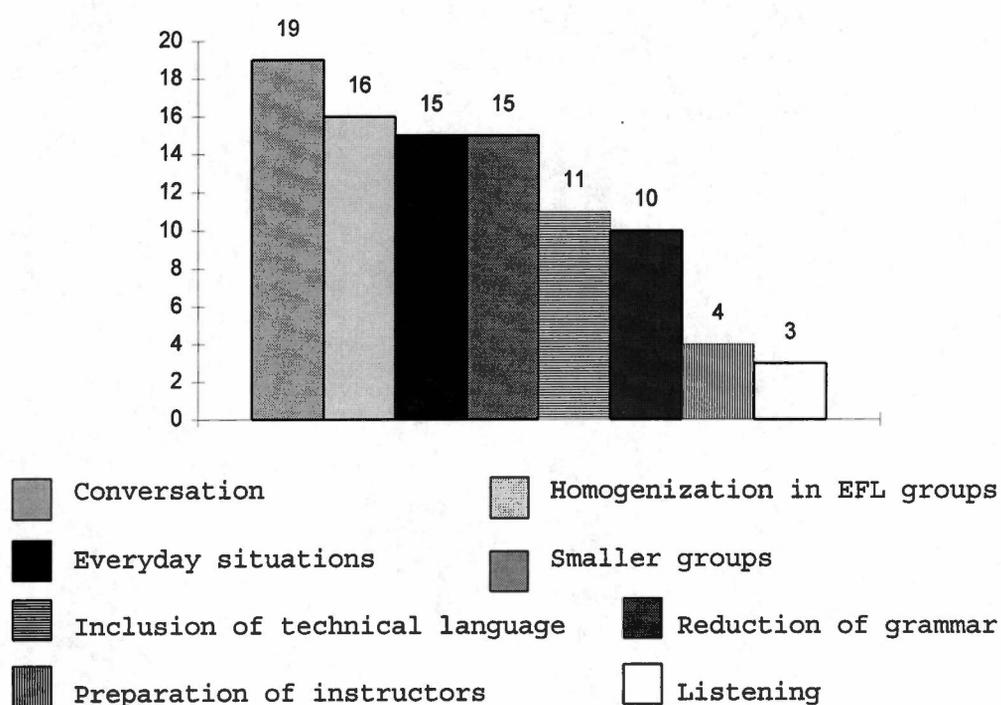


Figure 18

Frequency Distribution of Recommendations About EFL Programs

group; that is, there should be area homogenization in groups. Ten propositions (10.75%) criticized that most of the English programs focus on grammar and recommended to reduce this aspect. About the same number of suggestions

(eleven respondents) were concerned with the inclusion of technical language in the English programs.

It is interesting to notice that, despite the fact that the respondents reported a high demand for technical language in the four abilities, only 11.82% suggested to include this type of language in the EFL program. Fifteen out of ninety-three recommendations, i.e., 16.12% of the sample, also recommended to study in smaller groups. Only four individuals (4.30%) alluded to the preparation of the instructors; these professionals indicated that professors should not only speak English but also know about language pedagogy.

Based on the results presented in this chapter, the major findings discussed in this section can be summarized in the following manner:

Regarding employees' perception about the type of language most demanded, hypothesis # 1 states that concerning English as a foreign language, college graduate employees in twin plants think that they have a higher demand for mastering listening and speaking than reading and writing skills in their workplaces. Regarding this, it can be observed in Table 8 that the values in listening/speaking in A and B frequencies are higher (30.861%) than in reading/writing

(26.378%). Thus this hypothesis is proved.

Hypothesis # 2 expects that the use of formal language among college graduate employees is thought to have a higher demand in the listening skill than in the speaking ability. Table 10 shows that in A and B frequencies, the percentage in listening is 43.089%. On the other hand, speaking has a value of 22.764% . So this hypothesis is proved too.

The aspect of technical language is addressed in hypothesis # 3 which expects that according to college graduate employees' point of view, technical language is needed more often by college graduate employees in listening/speaking than in reading/writing skills. Table 12 shows that the oral abilities in A and B frequencies have lower values (25.322%) than non-oral skills which make up 31.782%. In other words, this hypothesis is rejected.

Hypothesis # 4 states that Most of the Mexican personnel working in twin plants perceive problems regarding the cultural-conventional rules in conversations. Data in Table 14 prove this true showing that 65% of the interviewed people perceived this kind of problem whereas 35% of the subjects claimed they did not notice it.

Finally, hypothesis # 5 suggests that based on college graduate employees' opinions, the pre-job English studies of stu-

dents at undergraduate level are not sufficient for the later requirements in their jobs. It is shown in Table 15 that only 9.3% of people answered that these studies helped them sufficiently in their jobs whereas 89.7% of the subjects stated those studies were not (completely) sufficient. So the hypothesis seems to be proved correct.

The results presented in this chapter reflect the findings detected in the survey from college graduate employees at twin plants. In the following chapter, these data will be compared with the results obtained from the questionnaire for instructors and some other subhypotheses will be treated in detail.

4.2. Presentation and discussion of the data obtained from instructors' questionnaire

Based on the instructors' point of view, a partial evaluation regarding the implementation of the 1995 EFL program at I.T.E.S.M. Campus Cd. Juárez will be discussed in the current chapter. As mentioned before, the results of the questionnaire answered by the instructors on this campus will be taken into consideration in order to find out what instructors think the implementation of the I.T.E.S.M. Program contributes, and later to compare those offerings with the demands employees perceived in the previous survey for college graduate employees.

In order to define what instructors consider is being taught in EFL classes, the eighteen courses that make up the EFL program at I.T.E.S.M. Campus Cd. Juárez were taken in consideration. There are eleven EFL courses in high school and seven courses at the undergraduate level. The courses taught in high school are the following: English I, Laboratory I, English II, Laboratory II, English III, IV, V and VI, Advanced I, II and III. At the undergraduate level the courses that make up the EFL program are the following: Remedial English I, II, III and IV, Advanced A,

B and C.

Concerning the results obtained from question # 1 in the questionnaire for instructors, it was found that the type of skills instructors affirmed they encouraged or practiced in class are listening/speaking more than reading/writing. Figure 19 shows a higher occurrence (8 and 23) in the 'high' and 'medium' frequencies for these abilities than in reading and writing (6 and 18). Table 17 shows the corresponding percentages over the total of 72 responses. This value represents the total of responses given by instructors for each type of language--general, formal, informal and technical--. For instance,

Table 17
The Frequency of EFL Skills
Encouraged by Teachers

Ability	High	%	Medium	%	Low	%	None	%
Listening	7	9.722	10	13.888	1	1.388	0	0.000
Speaking	1	1.388	13	18.055	4	5.555	0	0.000
Total	8	11.110	23	31.943	5	6.943	0	0.000
Reading	4	5.555	10	13.888	4	5.555	0	0.000
Writing	2	2.777	8	11.111	7	9.722	1	1.388
Total	6	8.332	18	24.999	11	15.277	1	1.388

High = more than ten times Medium = five to ten times Low = less than five times None = zero

for general language the values for the four abilities in each frequency were divided by 72. For listening and speaking and reading/writing in the 'high' frequency, the percentages are 11.110 and 8.332 respectively. In the 'medium' frequency for the same abilities, 31.943% is for listening/speaking and 23% for reading/writing. Similarly it was found that oral abilities predominate over non-oral skills regarding the 'low' and 'none' frequencies. In listening/speaking the values (5 and 0) are lower than in reading/writing (11 and 1). At first glance, this seems to be contradictory to the statement just given, but these

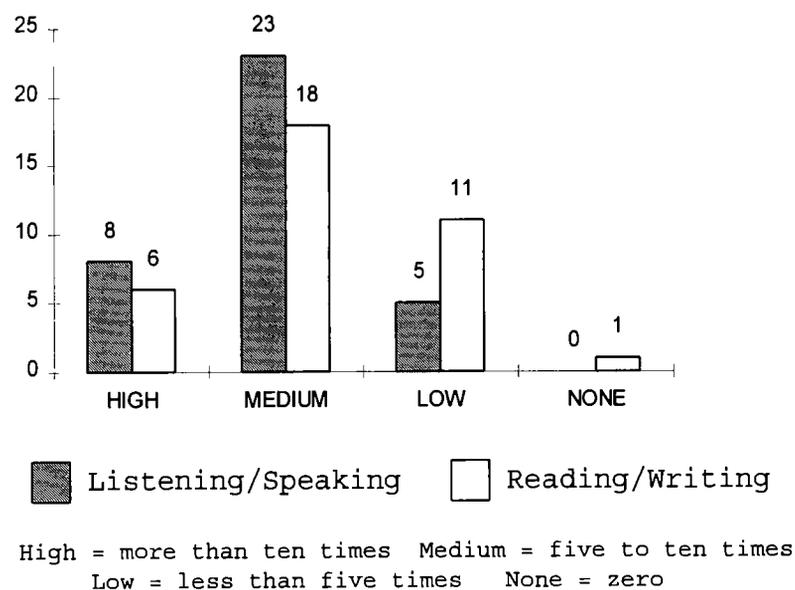


Figure 19

Frequency Distribution of EFL Skills
 Encouraged by Instructors

values actually mean that there are fewer instructors that affirm they do not practice enough listening/speaking skills and there are more teachers stating they do not practice enough reading/writing. The percentages in the 'low' and 'none' frequencies in listening/speaking are 6.943 and 0 respectively. The percentages for reading/writing are 15.277 and 1.388.

Formal language was also gauged in this survey. Results from question # 2 reveal that teachers declare that they generally encourage formal language in reading/writing than in listening/speaking. Table 18 provides the

Table 18
The Frequency of Formal Language Encouraged
by Instructors

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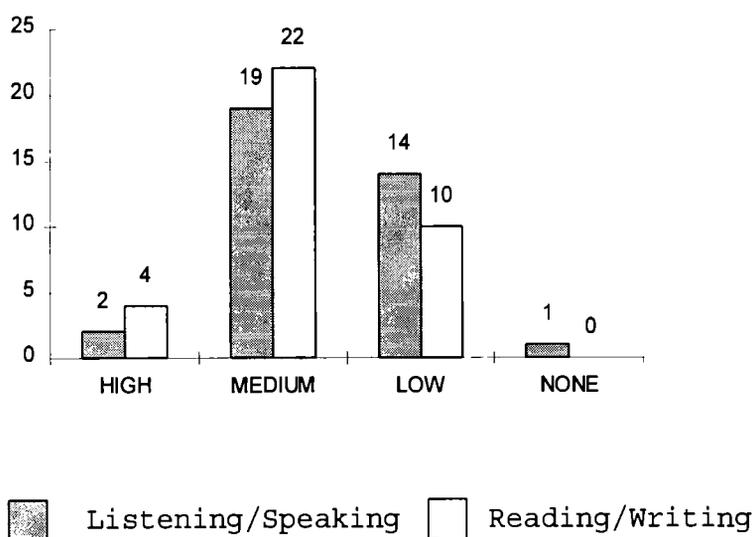
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Ability   High   %   Medium   %       Low   %       None   %
-----
Listening 1     1.388  10     13.888  7     9.722  0     0.000
Speaking  1     1.388  9      12.500  7     9.722  1     1.388
-----
Total     2     2.776  19     26.388  14    19.444  1     1.388

Reading   3     4.166  13     18.055  2     2.777  0     0.000
Writing   1     1.388  9      12.500  8     11.111  0     0.000
-----
Total     4     5.554  22     30.555  10    13.888  0     0.000
=====

```

High = more than ten times Medium = five to ten times Low = less than five times None = zero

response percentages for each ability in the four different frequencies. In the 'high' and 'medium' frequencies, reading/writing predominates (4 and 22 times or 5.554% and 30.555%) over listening/speaking whose values are 2 and 19(2.776% and 26.388% respectively). Logically opposite in the 'low' and 'none' frequencies, reading/writing (13.888) also prevails over listening and speaking (20.832). The occurrence (10 and 0) by which instructors say that they do not encourage enough reading/writing is



High = more than ten times Medium = five to ten times
 Low = less than five times None = zero

Figure 20

Frequency Distribution of Formal Language
 Encouraged in EFL Classes

lower than the number of times teachers affirm they do not encourage sufficiently listening/speaking (14 and 1). Table 18 shows the percentages for reading/writing in the 'low' and 'none' frequencies (13.888% and 0.000%). For listening/speaking the response percentages are 19.444% and 1.388%.

One pattern that emerges in the data from the teachers' questionnaire in question # 3 about informal language is that instructors remark they encourage more this type of language in listening/speaking than in reading/writing. As shown in Figure 21, the occurrence in the 'high' and 'medium' frequencies is higher (1 and 18) in oral skills than in reading/writing skills (0 and 8). These values are reflected in 1.388% and 24.999% for listening and speaking and 0.000% and 11.110% for reading/writing. In the 'low' and 'none' frequencies the values for reading/writing are not as low (23 and 5) as in listening/speaking (16 and 1). Logically opposite, listening/speaking predominates over reading/writing. The corresponding response percentages for listening/speaking in the 'low' and 'none' frequencies are 22.222% and 1.388% and for reading/writing, 31.944% and 6.944%. See Table 19.

Table 19
The Frequency of Teachers' Encouragement
Toward Informal Language

Ability	High	%	Medium	%	Low	%	None	%
Listening	1	1.388	8	11.111	9	12.500	0	0.000
Speaking	0	0.000	10	13.888	7	9.722	1	1.388
Total	1	1.388	18	24.999	16	22.222	1	1.388
Reading	0	0.000	4	5.555	14	19.444	0	0.000
Writing	0	0.000	4	5.555	9	12.500		6.944
Total	0	0.000	8	11.110	23	31.944	5	6.944

High = more than ten times Medium = five to ten times Low = less than five times None = zero

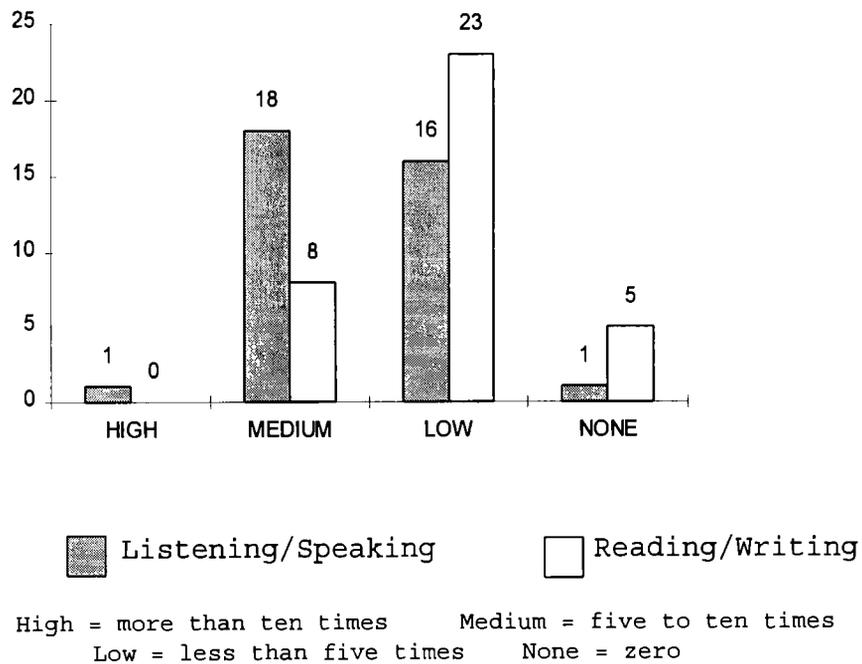


Figure 21
Frequency Distribution of Informal Language
Encouraged in EFL Courses

Another aspect studied in the survey was the use of technical language. As shown in Figure 22, instructors affirm that they do not encourage or practice this type of language very much in class. This fact is based on the data obtained from question # 4 on the teachers' questionnaire, the occurrence in the 'high' and 'medium' frequencies is low. For 'high' it is zero in the four abilities and for listening/speaking in the 'medium' frequency, the value is 2 or 2.777%. Reading/writing are presented with a total of 4 times or 5.554%. On the other hand Table 20 shows a high occurrence in the 'low' and 'none' frequen-

Table 20
The Frequency of Technical Language
Encouraged or Practiced in Class

Ability	High	%	Medium	%	Low	%	None	%
Listening	0	0.000	2	2.777	9	12.500	7	9.722
Speaking	0	0.000	0	0.000	10	13.888	8	11.111
Total	0	0.000	2	2.777	19	26.388	15	20.833
Reading	0	0.000	3	4.166	11	15.277	4	5.555
Writing	0	0.000	1	1.388	10	13.888	7	9.722
Total	0	0.000	4	5.554	21	29.165	11	15.277

High = more than ten times Medium = five to ten times Low = less than five times None = zero

cies. For listening/speaking the values are 19 and 15. This is reflected in 26.388% and 20.833% respectively. For reading/writing the values are 21 and 11 in the 'low' and 'none' frequencies. The response percentages are 29.165 and 15.277. Based on instructors' perception it means that technical language is almost not used in school.

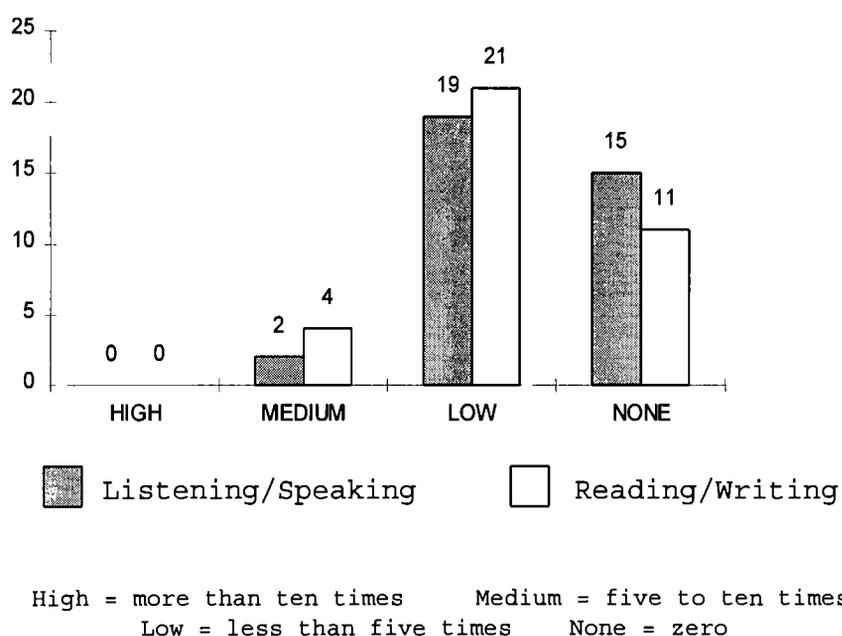


Figure 22

Frequency Distribution of Technical Language Encouraged in EFL Classes

The teachers' point of view about practicing and/or encouraging cultural-interactive was also considered. Results obtained from question # 5 in the questionnaire show

that this aspect of language obtained a higher value in the 'high' and 'medium' frequencies (13 or 72.222%) than in the 'low' and 'none' frequencies (5 or 27.777%). See Table 21 and Figure 23. Based on these data, it is noticed that teachers affirm that the cultural-interactive situations are encouraged in a high proportion. It might be a topic of further research, to find out on what the respective class activities focus and how they are carried out.

Table 21
The Frequency of Teachers'
Encouragement Toward
Cultural-Interactive
Situations

```

=====
Frequency  Times  %
-----
High       2       11.111
Medium    11       61.111
-----
Total     13       72.222

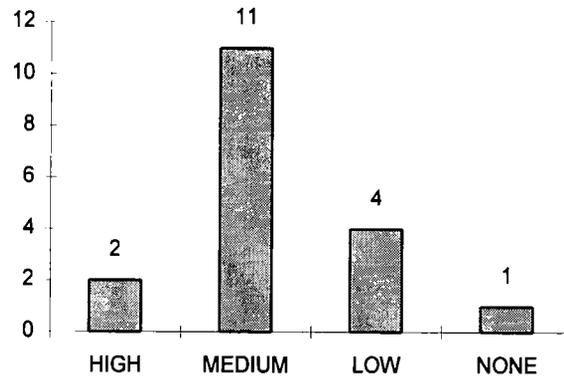
Low        4       22.222
None       1        5.555
-----
Total      5       27.777
-----
Total     18       99.999
=====

```

```

=====
High = more than ten times
Medium = five to ten times
Low = less than five times
None = zero
=====

```



 Cultural-Interactive situations

High = more than ten times Medium = five to ten times
 Low = less than five times None = zero

Figure 23

Frequency Distribution of Cultural-Interactive Situations Encouraged by Instructors

Finally, question # 6 in the teachers' survey deals with the type of suggestions directed to the EFL programs at I.T.E.S.M. Campus Cd. Juárez. The number of recommendations made by the teachers were thirty-seven. Table 22 and Figure 24 show that the majority of the proposals (14 or 37.83%) dealt with the inclusion of more interactive situations. Five of the informants (13.51%) remarked the idea that EFL programs should emphasize technical language more. Other four suggestions (10.81%) observe the necessity to have and apply a more accurate placement test.

Not having some students placed in the correct English course gives rise to problems related to learning and teaching of the foreign language. Three suggestions proposed the reduction of the number of students in EFL classes. This is reflected in 8.10% of the proposals. Similarly, the same number of recommendations were about including a specific course in which features of American culture are taught. Other three ideas confirmed the employees' opinion that the EFL program should have a higher emphasis or encourage speaking. Likewise, the same number

Table 22
Aspects to be Considered by
Instructors to Improve
EFL Courses

Specification	#	%
Cultural-Interactive situations	14	37.83
Technical Language	5	13.51
Placement test	4	10.81
Size of groups	3	8.10
American culture course	3	8.10
Speaking	3	8.10
Daily classes	3	8.10
EFL courses during last semesters	1	2.70
TOEFL course	1	2.70
Total	37	99.95

of suggestions were about teaching EFL courses on a daily basis. There were other interesting proposals. One instructor (2.70%), for instance, proposed to teach English at undergraduate level during the last semesters instead of teaching it during the early ones. Students knowledge about the foreign language would be more recent at the moment they go to work and they may be more mature and more receptive to the language. Another suggestion is con-

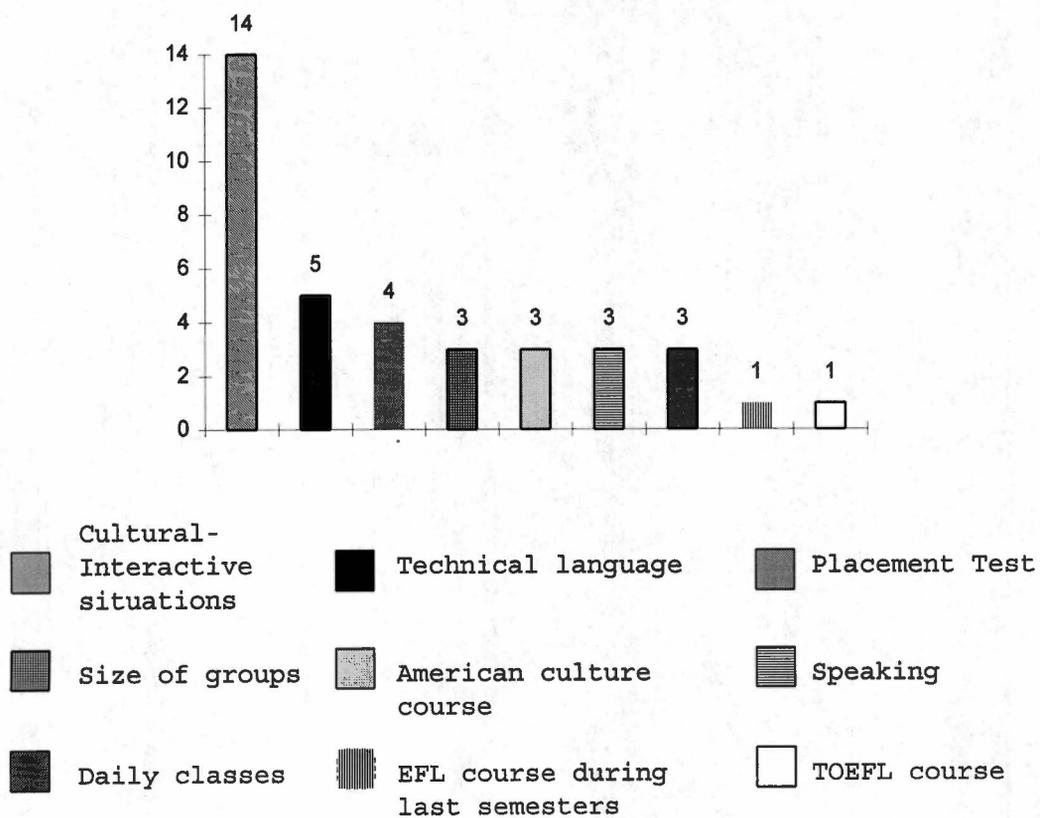


Figure 24

Frequency Distribution of Suggestions for EFL Courses

cerned with the TOEFL. Taking in consideration that this test is given to students once they finish their English courses at the undergraduate level and that they have to reach a score of 550, a specific course for TOEFL strategies should be taught.

5. Comparison of supply and demand

In the present section the results obtained from the questionnaire for instructors will be compared with the college graduate employees' perception about the demands they have working at twin plants. As part of this discussion, the previous hypotheses concerning the implementation of the EFL program will be re-evaluated.

The first hypothesis (5a) concerning the instruction of the EFL Program assumes that instructors estimate that the implementation of the EFL program at I.T.E.S.M. of Campus Cd. Juárez does not sufficiently prepare students for the high demand of listening/speaking abilities required in twin plants. According to the results obtained from the questionnaire administered to instructors in question # 1, it can be said that employees' perception about their necessities and the emphasis instructors say they give coincide. The question left open is whether the teachers' efforts are enough. It was found that listening/speaking (with a value of 43.053% in 'high' and 'medium' frequencies) are more encouraged by instructors than reading/writing (33.331% in the same frequencies). The respective data have already been shown in tables 8 and 17.

At this point it is important to remember that college graduate employees answered the questionnaire after taking English courses from earlier programs, whereas the instructors based their answers on the 1995 EFL Program. In spite of this discrepancy, the college graduate employees' needs should still be taken into account in order to improve the implementation of the current EFL Program.

Another aspect to consider deals with the criteria which both employees and instructors utilized at the moment they answered the questionnaire. In other words, when teachers responded 'I do it much', it does not necessarily mean that it is the same degree of 'much' that employees referred to when they said they needed it 'much'. Thus, there is no absolute measuring and it is obvious teachers used their own criteria. Secondly, it is still an open question whether what the teachers do is the implementation of the program or whether it is done on the basis of their personal concern.

Hypothesis # 5b regarding formal language states that the instructors perceive that formal English taught at I.T.E. S.M. does not appropriately cover the formal English required by college graduate employees in the listening and speaking skills. It was found that college graduate employees affirm that

they require more formal language in listening (67.479%) than in speaking (32.520%). See Table 10. But the same relationships are not given in the survey applied to the instructors, specifically in question # 2. Based on the data shown in Table 18, teachers affirm they tend to encourage formal language with the same frequency in the same abilities. Listening and speaking have the same values in the 'high' frequency (1.388%). There is a little difference in the 'medium' frequency. For listening, the value is 13.888% and for speaking is 12.500%. The values in the 'low' frequency for listening and speaking are the same (9.722%). The two questions appear again. How much have the programs changed? and how much impact does the instructors' focusing on listening/speaking formal language have in students' acquisition/learning processes?

Concerning informal language, although there was no hypothesis for this type of language, the present study shows some information regarding this. The abilities for which informal language was gauged were listening, reading and writing (questions #s 10 in C or D frequencies, 16, 18j and 20 respectively in employees' questionnaire). There is no question about speaking since it is assumed this oral ability is commonly used in an informal manner.

Data show that informants affirm that they listen to informal language constantly; logically opposite in question # 10 in the 'once per week' frequency, it can be observed that the occurrence in which respondents listen to formal language is 30. Thus, informal listening is often perceived by employees. There were no answers for the "never" frequency. The situations with more occurrence in informal language are in meetings and on the telephone. Comparing these results with the teachers' questionnaire, it is observed that informal listening encouragement by teachers is not necessarily high. Table 19 shows that the highest values are in the 'medium' (8) and in the 'low' (9) frequencies.

Regarding reading, the data in Table 11 show that this ability has high values (15 and 9) in the 'once per week' and 'never' frequencies. Question # 18j would also give information about informal language, but no answers were given for this item. Concerning writing, the frequencies 'once per week' and 'never' have also the highest values (18 and 15 respectively). These values demonstrate that subjects declare that they do not use informal reading and writing very often in their jobs. Likewise, in the questionnaire administered to teachers, in question #

3, it was found that reading and writing have the lowest values in all frequencies in comparison with listening and speaking. Table 19 shows, for instance, in the 'high' frequency listening/speaking have higher percentages (1.388%) than in reading/ writing (0.000%). The same occurs in the 'medium' where informal listening/speaking (24.999%) are more practiced or encouraged by teachers than reading/writing (11.110%). Logically opposite, in the 'low' category, listening/speaking have lower percentages (22.222%) than reading and writing (31.944). The same happens in the 'none' frequency; the values for listening/speaking are 1.388% and 6.944% for reading/writing.

Technical language was also under scrutiny, in the employees' survey as well as the instructors' questionnaire. Hypothesis # 5c expects that instructors think that the instruction regarding the EFL program does not sufficiently provide for the high demand of technical language required by college graduates in the EFL oral and written abilities. Based on the results obtained, it is observed that this hypothesis is correct. As shown in Table 12 and Figure 14, respondents perceive there is a high demand for technical language among college graduates in the four abilities (50.12% for reading/writing and 49.86% for listening/

speaking). As can be seen, the demand for technical language in oral skills is basically the same as in reading/writing skills. Contrary to this, data obtained from question # 4 in the teachers' survey, reveal that instructors consider the practice or encouragement of technical language in class is low. As shown in Table 20, the 'low' and 'none' frequencies have high values: for listening/speaking, 26.388% and 20.833% respectively and, by the same token, for reading/writing 29.165% and 15.277%. On the other hand, the values for the 'high' and 'medium' are low. For listening/speaking the percentages are 0.000% and 2.777% and for reading/writing 0.000% and 5.554%. So, this hypothesis is agreed upon by twin-plant workers and instructors.

Concerning the cultural-conventional aspect of language, hypothesis # 6 suggests that according to instructors' point of view, the implementation of the EFL program at I.T.E.S.M. Campus Cd. Juárez handles little information about cultural-conventional rules required by individuals working in twin plants. Based on the results obtained in question # 5 in the instructors' survey and shown in Table 21, it can be said that the teachers do not agree with this. Instructors claimed that they encourage or practice cultural-

interactive situations with a relatively high frequency (It was expected that values for the 'high' and 'medium' frequencies would be much lower). The values obtained for the 'high' and 'medium' are greater than for the 'low' and 'none' (72.22% > 27.77%). Based on these results, it can be stated that instructors believe the implementation of the EFL program tries to fulfill the needs for the cultural-interactive aspect of language; nevertheless, as will be seen in the following section, the major part of the suggestions made by instructors for the EFL program deals with the necessity to include still more cultural-interactive situations in the program.

The last aspect to be compared in this research project is the type of suggestions, those made by employees at twin plants as well as those made by instructors at I.T.E.S.M. Campus Cd. Juárez.

The first aspect to be considered in Table 23 is the size of EFL groups. Fifteen workers claimed EFL groups should be smaller whereas only three instructors referred to this issue. Secondly, three teachers said daily classes should be given; college graduate employees did not mention anything class frequency. Regarding the teaching of EFL courses during the last semesters, it is

observed that only one instructor considered this point; on the other hand, college graduate employees did not take into account this issue. One of the aspects of major need for employees (sixteen recommendations) is the homogenization of EFL groups; that is, individuals with the same major should study together, and other students with another

Table 23
Comparative Distribution of Suggestions
to EFL Courses Made by Twin-Plant
Workers and Instructors

Suggestions	Claims in Favor	
	workers	teachers
Size of EFL groups	15	3
Daily classes	---	3
EFL courses during last semesters	---	1
Students from same areas together	16	---
Placement tests	---	4
Reduction of grammar	10	---
Conversation	19	---
Listening	3	---
Speaking	---	3
Technical language	11	5
Every-day situations	15	---
Cultural-Interactive situations	---	14
TOEFL course	---	1
American culture course	---	3
Teachers' preparation	4	---

major should study in another group. It is noticed that instructors did not consider this aspect. The issue of the placement tests was contemplated by four instructors; contrary to this, workers did not consider this issue. There are ten recommendations made by workers related to reduction of grammar; teachers made no suggestions about this point. Similarly, conversation is of high priority among workers (nineteen suggestions); as part of this skill, listening is also considered separately (three recommendations). On the other hand, teachers only referred to the aspect of speaking; they made three suggestions regarding this point. In addition, there were three recommendations made by teachers regarding the inclusion of an American culture course.

The demand for the inclusion of technical language proposed by instructors is not as high (13.51%) as the demands made by workers (11.82%). The suggestions made by instructors with more frequency is the inclusion of cultural-interactive situations (37.83%). Similarly, workers made 16.12% of the recommendations about this issue under the concept of every-day situations. Two point seventy percent of the instructors talked about the inclusion of a TOEFL course; college graduates did not mention this. Fi-

nally, an interesting finding is that 4.30% of the employees alluded to the idea of instructors' preparation, whereas teachers did not consider this point in their suggestions. There is little coincidence in the opinions of employees and instructors.

6. Conclusions

In the present project, where one aspect of the bilingual situation at the north border was under study, the crucial task was to obtain information about college graduate employees' perception regarding their English language needs in twin plants and also to evaluate instructors' point of view to determine whether the implementation of the 1995 EFL Program at I.T.E.S.M. Campus Cd. Juárez satisfies those demands. In order to investigate these two issues, this writer established a number of hypotheses based on preliminary research with employees, managers and sociolinguists. The realization of the present study through surveys done with employees and EFL instructors led to its first conclusion: that Cd. Juárez is an appropriate location for testing the majority of the hypotheses.

6.1. Summary

The main conclusions drawn from the findings in this research project are stated in the following section.

a) There is no doubt that bilingualism is required from the college graduate employees working in twin plants.

This coincides with Malherbe's postulate--as mentioned in chapter 2--that "the only practical approach is to assess bilingualism in terms of certain social and occupational demands of a practical nature in a particular society" (Grosjean, 235).

In addition to this assertion, in which bilingualism is contemplated, this thesis has led to some other findings:

- b) College graduate employees consider that the skill they demand more is listening/speaking over reading/writing. This coincides with Fixman's study during which he found that speaking is an important skill to be developed among employees (25-46).
- c) Based on the information obtained from employees' perception, it can also be said that there is a relationship between the type of language employees state they demand and the type of skill college graduates affirm they handle. College graduates consider, for instance, that formal language is more required by this type of employees working in twin plants in listening than in speaking. Although there were no data gathered for writing, it is assumed that this ability has a great demand of formal language, too.

d) Another example of the relationship between the type of language and the type of skill is the one concerning informal language. The abilities on which this was gauged were only listening, reading and writing and, as the employees informed, the use of informal English in reading and writing is not very high. It is assumed, nevertheless, that this type of language is more widely used in oral abilities.

e) The dominion of language in specific area within which college graduate employees carry out their job tasks plays an important role in their foreign language communication. The high demand for technical language in oral and reading/writing skills, as reported by the informants, confirms this assertion. The areas in which technical language is used may vary within the twin-plant sector. It has been observed in the present study that there are twelve areas restricted to the sample under study. The ones in which most of the personnel were interviewed were in the medical and television areas, followed by areas where people worked with batteries, plastic lenses, automobiles and vacuums.

f) Based on the instructors' point of view, it looks as if the implementation of the EFL program answers to the

high demand of listening/speaking employees affirm they demand.

g) The employees' perception concerning the high need for using formal language in reading and writing, is also apparently considered in the English classes where teachers affirm they encourage more formal language in reading/writing than in listening/speaking.

h) Concerning informal language, it can be assumed that the employees' understanding about the need for its use in listening/speaking is considered, as teachers reported, by the English courses taught. The data obtained from the instructors' survey show that these abilities received higher values than reading/writing.

i) Based on the data obtained, it became obvious that teachers perceive the instruction of the EFL Program considers the demand for cultural interactive situations twin-plant employees claim they require. However, the vast majority of instructors recommend to emphasize this aspect still more during classes.

In addition, instructors affirm there is one aspect regarding the implementation of the EFL Program at I.T.E.S.M. Campus Cd. Juárez that does not appropriately satisfy foreign language demands expressed by twin-plant

employees. It has to do with the employees' perception regarding the high demand for technical language in the four abilities. Teachers reported that almost no emphasis is made on using this type of language.

6.2. Suggestions

Related to the linguistic and cultural diversity found around the Mexican border and specially in the twin-plant sector, the need to study related aspects automatically arises. Taking this into consideration, the following recommendations are made:

- 1) Based on the relationship found between college graduates' point of view about their needs and what teachers affirm is taught at I.T.E.S.M. Campus Cd. Juárez, it can be reiterated, that the English classes try to teach the cultural-interactive aspect of language. Nevertheless, the majority of the suggestions made by instructors deals with giving still more emphasis to this. It is thus proposed to conduct a more profound study on this issue. However, taking into consideration only the suggestions made by professors, employees, and personal observations about the cultural-interactive situation, this author already suggests to include more of the cultural aspects in

the implementation of the EFL Program. This would respond to Bixler's impressions (chapter 1) when he claims that educational programs should not only produce a larger number of bilingual and polyglot college graduates, but also personnel with transcultural communicative skills (5).

2) Based on employees' perception about the high demand of listening/speaking in their workplaces, it would be necessary to take into consideration some other aspects, such as the language functions. For instance, with respect to listening it would be necessary to determine whether students need an *interactional* function--which comprises social relationships and expresses personal attitudes--or *transactional*--which is message-oriented and focuses on content--(Brown and Yule, 1983a in Morley, 86), or both. In either case, it would be useful to recognize the type of language function individuals need to master which can be *emotive*, *conative*, *referential*, *phatic*, *metalingual* or *poetic* (Jakobson, 53-7).

3) Concerning technical language, instructors declare they do not consider this aspect of language in their classes. On the other hand, the results obtained from the present project show in figure 15 that there is a high demand of this type of language in the four abilities. This

information leads to a serious contemplation of the inclusion of English for Specific Purposes (*ESP*) in the implementation of the EFL Program as well as in the program itself. Based on the instructors' perception, this particular type of language used in different areas such as science and technology is an important aspect to consider in the students' EFL preparation to accomplish their job tasks later. The inclusion of *ESP* would not only suggest to modify the EFL program, but also to hire more qualified instructors. Similarly, the emphasis of *ESP* in the English classes should heed the communicative purpose or 'function' of the individual within a specific context, and so should other features of language, such as specific grammar and vocabulary items for the main technical areas.

4) This is a study in which supplies and demands concerning English needs are analyzed in a city where the use of English comprehends diverse employment activities.

This condition alludes to the idea of considering extensive and more profound studies to determine the specific needs college graduates face when they go to work in different areas, not only in the twin-plant sector. Based on this, the teaching of English programs should be designed or modified more consciously, according to the functional

approach to foreign language teaching and learning mentioned in chapter 2, where the needs and purpose of learning English should be taken into account. English courses should not only be highly structured around language form, as well as being intensive, but they should also give guidelines for responding to specific needs of the individuals (Howatt, 282 f.).

These conclusions and recommendations just mentioned above lead to think about a question which was not given a conclusive answer in this study: Are the promises of the EFL program being realized?

5) There are some other aspects to be seriously contemplated for the improvement the instruction of EFL courses. The recommendations are made by instructors and college graduate employees. Concerning instructors, they strongly recommended cultural-interactive situations including an American culture course as well as the inclusion of technical language. On the other hand, employees focused more on the oral abilities to be developed, area-homogenization of groups, and the functional aspect of language.

Nevertheless, it is also important to mention the discrepancy regarding the time factor between the employees' and instructors' responses to the survey. The col-

lege graduate employees who responded to it took their English courses much earlier than the 1995 EFL Program was even designed. On the other hand, instructors responded to the questionnaire based on that newer version.

Another issue to mention is related to teachers' responses to the questionnaire. There is no absolute measuring about what they answered on the survey; that is, they used their own criteria to answer and employees used theirs. To illustrate this, the meaning of "I do it much" as an answer in the teachers' questionnaire might be based on a different degree from the meaning college graduate employees give to the same expression. At this point it is also important to consider what teachers affirm they perform in class. It is not known whether the instructors follow or realize what the program indicates or whether they teach English based on their personal criteria.

Finally, it has to be repeated that the idea of undertaking the present project emerges from the particular phenomenon present at the cosmopolitan Cd. Juárez-El Paso frontier where bilingualism and economy are strongly linked. In addition, the idea of elaborating this thesis is reinforced by the author's experience in her classes where she observed that what instructors declare they

teach may not necessarily correspond to that what future college graduates will need in their jobs. Based on this, the implementation of the EFL Program at I.T.E.S.M. Campus Cd. Juárez should consider this important point in order to achieve excellence in the implementation of their study programs and, therefore, adequately form-trained college graduates in a world where English is more demanded day by day due to its important role as a *lingua franca* in fields such as technology, economy, science and politics.

A p p e n d i c e s

Appendix A
First Questionnaire: Form

Questionnaire

PERSONAL INFORMATION

1. Name (optional) _____ 2. Sex _____
3. Age _____ 4. Occupation _____ 5. Name of the company where you
work _____ 6. Level of education _____

INFORMAL USE OF ENGLISH

Mark the letter that corresponds best to your situation

7. How often do you need to talk to a native speaker of English in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never
8. How often do you listen to American radio, TV and/or cassettes in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never

TECHNICAL

9. How often do you need to read technical documents in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never
10. How often do you need to speak technical language in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never
11. How frequently do you need to write technical language in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never
12. How often do you listen to technical language in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never

SPEAKING

13. How often do you need to speak English in your work?
a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never
14. I talk in English in the following situations:
a. Person to person b. In front of a group c. Within a group d. Mark as many as apply

Mark the situation or situations you are involved in

15. When I talk in English in my job I am involved in the following situations:

- a. I try to convince someone or an audience about something
- b. I give new information
- c. I demonstrate how a thing works or how to use something
- d. I use impromptu speech
- e. Several
- f. Other: _____

WRITING

Mark the letter that corresponds best to your situation

16. How often do you need to write in English in your work?

- a. Daily
- b. 2 or 3 times per week
- c. 2 or 3 times per month
- d. Sporadically
- e. Never

17. How often do you need to write by electronic media (fax, internet, etc.) in your work?

- a. Daily
- b. 2 or 3 times per week
- c. 2 or 3 times per month
- d. Sporadically
- e. Never

18. What type of documents do you need to write in your job?

- a. Business letters
- b. Reports
- c. Memos
- d. Essays
- e. Several types
- f. other _____

READING

19. How often do you need to read English in your job?

- a. Daily
- b. 2 or 3 times per week
- c. 2 or 3 times per month
- d. Sporadically
- e. Never

20. Mark the type of documents you read

- a. Memos
- b. Reports
- c. Business letters
- d. Brochures
- e. Manuals
- f. Periodicals
- g. Other: _____

21. You need to read in your job to

- a. Translate to other people
- b. Have a general comprehension
- c. Follow instructions and step

LISTENING

22. How frequently do you listen to English in your work?

- a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never

CULTURE

Indicate the number that corresponds best to the given situation

Scale: 1. I Strongly agree 2. I agree 3. I disagree 4. I strongly disagree

23. _____ I find it difficult to work in the *maquila* area where two different cultures exist

24. _____ I know the kind of topics Americans like to talk

25. _____ I know about the job habits Americans have

26. _____ I have a good knowledge of American idiomatic speech

27. _____ I know about the most significant holidays for Americans and how they celebrate them.

Mark the letter that corresponds best to your situation

28. I tell jokes to American people

- a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never

29. I have had misunderstandings with American people due to the cultural factor

- a. Daily b. 2 or 3 times per week c. 2 or 3 times per month d. Sporadically e. Never

Appendix B
Questionnaire for employees: Form

Questionnaire
Cuestionario

For the realization of a project related to the researcher's graduate studies, I would appreciate your collaboration in answering the following questionnaire. The information provided will be handled anonymously. Agradecería tu colaboración al contestar el siguiente cuestionario, para la realización de un proyecto de investigación por parte de la escuela de graduados. La información proporcionada será manejada anónimamente

PERSONAL INFORMATION
INFORMACIÓN PERSONAL

1. Sex 1. _____
Sexo
2. Age 2. _____
Edad
3. Title (and/or grade) 3. _____
Título (y/o grado)
4. Occupational status 4. _____
Puesto desempeñado
5. How did you learn English? a. school and/or university b. informal situation 5. _____
¿Cómo aprendiste inglés? a. en la escuela y/o universidad b. en situaciones informales
6. How many years have you worked on your English before taking on this job? 6. _____
¿Cuántos años has estudiado inglés antes de tener el presente trabajo?
7. During that time I have worked in my English: a. intensely b. more or less c. little 7. _____
Durante ese tiempo, he estudiado inglés: a. intensamente b. más o menos c. poco
8. Do you feel that your pre-job English studies prepared you for job requirements in this language? 8. _____
a. completely b. partially c. no
¿Crees que los estudios de inglés anteriores al trabajo que desempeñas te prepararon para las demandas de inglés en tu trabajo? a. completamente b. parcialmente c. no

Mark the letter that corresponds best to your situation

Marca la letra que corresponda mejor a tu situación

- Scale : A. Daily (5 times per week) B. 2 to 4 times per week C. Once per week D. Never
Escala: A. Diario (5 veces por semana) B. 2 a 4 veces por semana C. Una vez por semana D. Nunca

LISTENING
ESCUCHAR

9. Mark the type of situations in which you listen to formal English (you may mark various)
a. lectures b. meetings c. discussions d. on the phone e. others
Marca el tipo de situaciones en la cual escuchas un inglés formal (puedes marcar varias)
a. conferencias b. juntas c. discusiones d. en el teléfono e. otras
10. How often do you listen formal English in the situations you marked in item 9?
(place the corresponding small and capital letters) small capital
¿Qué tan seguido escuchas un inglés formal en las situaciones que marcaste minús mayús
en la pregunta 9? (coloca las letras mayúsculas y minúsculas correspondientes) _____ _____
_____ _____
_____ _____
_____ _____

11. How often do you listen to technical English in the situations you marked in item 9? (place the corresponding small and capital letters)
- ¿Qué tan seguido escuchas un inglés técnico en las situaciones que marcaste en la pregunta 9? (coloca las letras mayúsculas y minúsculas correspondientes)
- | | small
minús | capital
mayús |
|--|----------------|------------------|
| | | |
| | | |
| | | |
| | | |

SPEAKING

HABLAR

12. How often do you need to speak English in formal situations in your work?
 ¿Qué tan seguido necesitas hablar inglés en situaciones formales en tu trabajo? _____
13. Tasks I am involved with when I talk in English in my job are (your may mark various options)
- a. I demonstrate how a thing works or how to use something b. I interpret graphs and tables
 c. I talk on the phone. d. other
- Las tareas en las que me involucro cuando hablo inglés en mi trabajo son (marca varias si es necesario) a. demuestro cómo trabaja una cosa o cómo usar algo b. interpreto gráficas y tablas
 c. hablo por teléfono d. otras _____

14. How often do you use technical English in the situations you marked in item # 13? (place the corresponding small and capital letters)
- ¿Qué tan seguido usas un inglés técnico en las situaciones que marcaste en la pregunta # 13? (coloca las letras mayúsculas y minúsculas correspondientes)
- | | small
minús | capital
mayús |
|--|----------------|------------------|
| | | |
| | | |
| | | |
| | | |

15. The area of my job where I use technical English is _____
 El area de mi trabajo donde uso el inglés técnico es _____

READING

LEER

16. How often do you read general newspaper or magazines in your work ?
 ¿Con qué frecuencia lees periódicos o revistas en general? _____
17. Mark the other type of documents you read in your work
- a. memos b. reports c. business letters d. brochures e. manuals f. periodicals
 g. policies h. all i. none j. other
- Marca otro tipo de documento que leas en tu trabajo
- a. memos b. reportes c. cartas de negocios d. folletos e. manuales f. revistas
 especializadas en el tipo de trabajo que desempeñas. g. reglamentos h. todos i. ninguno
 j. otros _____
18. How often do you need to read the documents you marked on item # 17? (place the corresponding small and capital letters)
- ¿Con qué frecuencia necesitas leer documentos que marcaste en la pregunta 17? (coloca las letras mayúsculas y minúsculas correspondientes)
- | | small
minús | capital
mayús |
|--|----------------|------------------|
| | | |
| | | |
| | | |
| | | |

19. You need to read in your job in order to
 a. translate to other people b. follow instructions and steps c. to be informed d. other
 Necesitas leer en tu trabajo para: _____
 a. traducir algo para otras personas b. para seguir pasos e instrucciones c. para estar informado
 d. otras

WRITING
ESCRIBIR

20. How often do you write personal letters or messages using informal language in your job? _____
 ¿Con qué frecuencia necesitas escribir cartas o mensajes usando un lenguaje informal? _____

21. What type of documents do you need to write in your job? (you may mark various)
 a. business letters b. reports c. memos d. manuals e. proposals
 f. all g. none h. other
 ¿Qué tipo de documentos necesitas escribir en tu trabajo? (marca varias si es necesario)
 a. cartas de negocios b. reportes c. memos d. manuales e. propuestas
 f. todos g. ninguno h. otros _____

22. How often do you use technical English in the documents you marked in question # 21? (place the corresponding small and capital letters) small capital
 ¿Qué tan seguido usas el inglés técnico en los documentos que marcaste en la pregunta # 21? (coloca las letras mayúsculas y minúsculas correspondientes) minús mayús
 _____ _____
 _____ _____
 _____ _____
 _____ _____

23. What would you suggest for English teaching programs to change in order to be more effective?
 ¿Qué cambios recomendarías en los programas de enseñanza del inglés para que sean más efectivos?

CULTURE
CULTURA

People of different cultures follow different rules in conversation, such as whose turn it is to talk, whether and when you might interrupt, how much information you must make explicit in a question or in an answer, etc. What is normal in one culture might be offensive in another one. It would be interesting for this research project to find out whether you have observed difficulties of this kind, which do not have to do anything with either the language or personal likings or dislikings.

Gente de diferentes culturas siguen diferentes reglas en la conversación, tales como el saber de quién es el turno para hablar, cuándo puedes interrumpir, cuánta información debes hacer explícita en una pregunta o en una respuesta, etc. Lo que es normal para una cultura, puede ser ofensivo para otra. Sería interesante para este proyecto darnos a conocer si has observado dificultades de este tipo que no tienen nada que ver con el manejo de la lengua misma o con gustos o diferencias personales.

24. Have you observed or experienced any difficult situation due to cultural-conventional discrepancies?

¿Usted ha observado o experimentado alguna dificultad debido a diferencias culturales-convencionales?

Yes _____ No _____ Circle the space below that describes your experience

a. Often b. sometimes c. never

Si _____ No _____ Encierra en un círculo el espacio de abajo que describa tu experiencia

a. frecuentemente b. algunas veces c. nunca

25. if your answer is positive, please describe some of your experience.

Si tu respuesta es afirmativa, por favor describe tu experiencia.

Thanks for your cooperation
Gracias por tu cooperación

Appendix C
Teachers' Questionnaire: Form

Questionnaire

For the realization of a project through which certain aspects of the English program at I.T.E.S.M. Campus Cd. Juárez will be explored, I would appreciate your collaboration in answering the following questionnaire.

TEACHER'S NAME _____ COURSE _____

BOOKS _____

Mark with a checkmark the frequency in which you practice or encourage the use of four skills.

Scale: High: more than ten times in one class hour. Medium: five to ten times. Low: less than five times. None: zero

Frequency

	high	medium	low	none
1. GENERAL				
Listening				
Speaking				
Reading				
Writing				
2. FORMAL				
Listening				
Speaking				
Reading				
Writing				
3. INFORMAL				
Listening				
Speaking				
Reading				
Writing				
4. TECHNICAL				
Listening				
Speaking				
Reading				
Writing				
5. Cultural- interactive situation	high	medium	low	none
6. Suggestions				

Thanks for your cooperation !

Appendix D
Employees' questionnaire: tally sheets

Questionnaire
Cuestionario

For the realization of a project related to the researcher's graduate studies, I would appreciate your collaboration in answering the following questionnaire. The information provided will be handled anonymously. Agradecería tu colaboración al contestar el siguiente cuestionario, para la realización de un proyecto de investigación por parte de la escuela de graduados. La información proporcionada será manejada anónimamente

PERSONAL INFORMATION
INFORMACIÓN PERSONAL

- | | |
|--|--|
| 1. Sex
Sexo | M = <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>
F = <u> </u> <u> </u> <u> </u> <u> </u> |
| 2. Age
Edad | 23-32 = <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>
33-42 = <u> </u> <u> </u> |
| 3. Title (and/or grade)
Título (y/o grado) | 1. _____
2. _____ |
| 4. Occupational status
Puesto desempeñado | 3. <u>See reverse</u> |
| 5. How did you learn English? a. school and/or university b. informal situation
¿Cómo aprendiste inglés? a. en la escuela y/o universidad b. en situaciones informales | a = <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>
b = <u> </u> <u> </u>
5. <u>a and b</u> <u> </u> <u> </u> |
| 6. How many years have you worked on your English before taking on this job?
¿Cuántos años has estudiado inglés antes de tener el presente trabajo? | 6. <u>See reverse</u> |
| 7. During that time I have worked in my English: a. intensely b. more or less c. little
Durante ese tiempo, he estudiado inglés: a. intensamente b. más o menos c. poco | a = <u> </u>
7. <u>b</u> = <u> </u> <u> </u> <u> </u> |
| 8. Do you feel that your pre-job English studies prepared you for job requirements in this language?
a. completely b. partially c. no
¿Crees que los estudios de inglés anteriores al trabajo que desempeñas te prepararon para las demandas de inglés en tu trabajo? a. completamente b. parcialmente c. no | c = <u> </u> <u> </u> <u> </u>
a = <u> </u>
8. <u>b</u> = <u> </u> <u> </u> <u> </u>
c = <u> </u> <u> </u> <u> </u> <u> </u> |

Mark the letter that corresponds best to your situation

Marca la letra que corresponda mejor a tu situación

- Scale : A. Daily (5 times per week) B. 2 to 4 times per week C. Once per week D. Never
Escala: A. Diario (5 veces por semana) B. 2 a 4 veces por semana C. Una vez por semana D. Nunca

LISTENING
ESCUCHAR

9. Mark the type of situations in which you listen to formal English (you may mark various)
a. lectures b. meetings c. discussions d. on the phone e. others
Marca el tipo de situaciones en la cual escuchas un inglés formal (puedes marcar varias)

- a. conferencias b. juntas c. discusiones d. en el teléfono e. otras
10. How often do you listen formal English in the situations you marked in item 9?
(place the corresponding small and capital letters)

¿Qué tan seguido escuchas un inglés formal en las situaciones que marcaste en la pregunta 9? (coloca las letras mayúsculas y minúsculas correspondientes)

a B = |||
c A = |||| ||||
b C = ||||
d C = |||| |||

b B = |||| ||||
c C = |||
d B = ||
a C = ||||

small	capital
minús	mayús
<u>bC</u>	<u> </u> <u> </u>
<u>cB</u>	<u> </u> <u> </u>
<u>aA</u>	<u> </u>
<u>bA</u>	<u> </u> <u> </u>
<u>dA</u>	<u> </u> <u> </u>

3.- Industrial engineer IIII IIII IIII I
 Accountant IIII IIII I
 Business administration IIII I
 Electric engineer IIII
 Computer engineer II

4.- Industrial engineer	IIII I	Personnel engineer	III
Supervisor	IIII	Manufacturing engineer	III
Accountant	IIII	Personnel engineer	II
Accountant Assistant	IIII	Maintenance engineer	II
Manager	IIII	Analyst	I
Process engineer	III	Design engineer	I
		Environment controller	I
		Computer engineer	I

6.. Years persons

1	IIII IIII IIII
2	IIII II
3	IIII
4	III
5	II
6	I
7	I

11. How often do you listen to technical English in the situations you marked in item 9? (place the corresponding small and capital letters)
 ¿Qué tan seguido escuchas un inglés técnico en las situaciones que marcaste en la pregunta 9? (coloca las letras mayúsculas y minúsculas correspondientes)

$cB = \text{HTT HTT}$ $aC = \text{HTT HTT III}$
 $aA = \text{HTT}$ $aB = \text{IIII}$
 $cC = \text{HTT HTT III}$ $dD = \text{I}$
 $dC = \text{HTT HTT HTT HTT}$

small capital
 minús mayús
 $cA = \text{IIII}$
 $bB = \text{HTT HTT II}$
 $dB = \text{HTT III}$
 $bA = \text{HTT}$
 $bC = \text{HTT HTT HTT IIII}$

SPEAKING
HABLAR

12. How often do you need to speak English in formal situations in your work?
 ¿Qué tan seguido necesitas hablar inglés en situaciones formales en tu trabajo?

$A = \text{HTT III}$
 $B = \text{HTT HTT HTT HTT}$
 $C = \text{HTT HTT}$
 $D = \text{II}$

13. Tasks I am involved with when I talk in English in my job are (your may mark various options)
 a. I demonstrate how a thing works or how to use something b. I interpret graphs and tables
 c. I talk on the phone. d. other

Las tareas en las que me involucro cuando hablo inglés en mi trabajo son (marca varias si es necesario)
 a. demuestro cómo trabaja una cosa o cómo usar algo b. interpreto gráficas y tablas
 c. hablo por teléfono d. otras

14. How often do you use technical English in the situations you marked in item # 13?
 (place the corresponding small and capital letters)
 ¿Qué tan seguido usas un inglés técnico en las situaciones que marcaste en la pregunta # 13? (coloca las letras mayúsculas y minúsculas correspondientes)

$bB = \text{HTT III}$ $dC = \text{III}$ $bA = \text{II}$
 $aC = \text{HTT I}$ $cA = \text{HTT I}$
 $dA = \text{II}$ $dB = \text{III}$

small capital
 minús mayús
 $aA = \text{HTT HTT}$
 $bC = \text{HTT HTT}$
 $cC = \text{HTT HTT I}$
 $aB = \text{HTT IIII}$
 $cB = \text{HTT HTT}$

15. The area of my job where I use technical English is
 El area de mi trabajo donde uso el inglés técnico es

See reverse

READING
LEER

16. How often do you read general newspaper or magazines in your work?
 ¿Con qué frecuencia lees periódicos o revistas en general?

$A = \text{IIII}$ $C = \text{HTT HTT HTT}$
 $B = \text{HTT HTT II}$ $D = \text{HTT IIII}$

17. Mark the other type of documents you read in your work
 a. memos b. reports c. business letters d. brochures e. manuals f. periodicals
 g. policies h. all i. none j. other

Marca otro tipo de documento que leas en tu trabajo
 a. memos b. reportes c. cartas de negocios d. folletos e. manuales f. revistas especializadas
 en el tipo de trabajo que desempeñas. g. reglamentos h. todos i. ninguno
 j. otros

18. How often do you need to read the documents you marked on item # 17?
 (place the corresponding small and capital letters)
 ¿Con qué frecuencia necesitas leer documentos que marcaste en la pregunta 17? (coloca las letras mayúsculas y minúsculas correspondientes)

$fB = \text{II}$ $eB = \text{HTT IIII}$ $cA = \text{III}$ $fC = \text{HTT I}$ $eA = \text{II}$
 $dC = \text{IIII}$ $aC = \text{HTT HTT III}$ $dA = \text{I}$ $eC = \text{HTT I}$
 $cB = \text{III}$ $cC = \text{HTT I}$ $dB = \text{HTT HTT II}$ $gB = \text{HTT I}$

small capital
 minús mayús
 $aB = \text{HTT HTT}$
 $bC = \text{IIII}$
 $bA = \text{HTT HTT I}$
 $aA = \text{HTT II}$
 $bB = \text{HTT I}$

15-- Medical LII
Television LIII
Batteries LIII
Plastic lenses LIII
Automobiles LIII
Vacuums LIII

Lamps LII
Recycling LII
Machinery plans LI
Environmental laws LI
Sewing LI
Airline LI

19. You need to read in your job in order to

- a. translate to other people b. follow instructions and steps c. to be informed d. other

Necesitas leer en tu trabajo para:

- a. traducir algo para otras personas b. para seguir pasos e instrucciones c. para estar informado d. otras

a = II

b = IIII I

c = IIII IIII

bc = IIII IIII I

abc = IIII II

WRITING

ESCRIBIR

20. How often do you write personal letters or messages using informal language in your job?

¿Con qué frecuencia necesitas escribir cartas o mensajes usando un lenguaje informal?

A = IIII II

B = IIII II

C = IIII IIII IIII IIII

D = IIII IIII

21. What type of documents do you need to write in your job? (you may mark various)

- a. business letters b. reports c. memos d. manuals e. proposals
f. all g. none h. other

¿Qué tipo de documentos necesitas escribir en tu trabajo? (marca varias si es necesario)

- a. cartas de negocios b. reportes c. memos d. manuales e. propuestas
f. todos g. ninguno h. otros

22. How often do you use technical English in the documents you marked in question # 21? (place the corresponding small and capital letters)

¿Qué tan seguido usas el inglés técnico en los documentos que marcaste en la pregunta # 21? (coloca las letras mayúsculas y minúsculas correspondientes)

eB = IIII I

aB = IIII I

cB = IIII IIII II

eC = IIII II

cC = IIII IIII

dC = IIII IIII

bC = IIII

aC = I

fC = I

g = IIII I

small capital
minús mayús

aA

bB

cA

bB

bA

II

IIII IIII

III

IIII

IIII IIII

23. What would you suggest for English teaching programs to change in order to be more effective?

¿Qué cambios recomendarías en los programas de enseñanza del inglés para que sean más efectivos?

Homogenization in EFL groups = IIII IIII IIII I

Smaller groups = IIII IIII IIII

Reduction of grammar = IIII IIII

Conversation = IIII IIII IIII IIII

Focus on listening = IIII IIII IIII

Inclusion of technical language = IIII IIII I

Preparation of instructors = IIII

CULTURE

CULTURA

People of different cultures follow different rules in conversation, such as whose turn it is to talk, whether and when you might interrupt, how much information you must make explicit in a question or in an answer, etc. What is normal in one culture might be offensive in another one. It would be interesting for this research project to find out whether you have observed difficulties of this kind, which do not have to do anything with either the language or personal likings or dislikings.

Gente de diferentes culturas siguen diferentes reglas en la conversación, tales como el saber de quién es el turno para hablar, cuándo puedes interrumpir, cuánta información debes hacer explícita en una pregunta o en una respuesta, etc. Lo que es normal para una cultura, puede ser ofensivo para otra. Sería interesante para este proyecto darnos a conocer si has observado dificultades de este tipo que no tienen nada que ver con el manejo de la lengua misma o con gustos o diferencias personales.

24. Have you observed or experienced any difficult situation due to cultural-conventional discrepancies?

¿Usted ha observado o experimentado alguna dificultad debido a diferencias culturales-convencionales?

Yes = IIII IIII IIII IIII IIII I No = IIII IIII IIII

Yes _____ No _____ Circle the space below that describes your experience

- a. Often b. sometimes c. never

Si _____ No _____ Encierra en un círculo el espacio de abajo que describa tu experiencia

- a. frecuentemente b. algunas veces c. nunca

25. if your answer is positive, please describe some of your experience.

Si tu respuesta es afirmativa, por favor describe tu experiencia.

- Americans like to go straight to the point
- Interruptions
- Americans talk to blue-collar workers.
- Courtesy rules

Thanks for your cooperation
Gracias por tu cooperación

Questionnaire
Cuestionario

For the realization of a project related to the researcher's graduate studies, I would appreciate your collaboration in answering the following questionnaire. The information provided will be handled anonymously. Agradecería tu colaboración al contestar el siguiente cuestionario, para la realización de un proyecto de investigación por parte de la escuela de graduados. La información proporcionada será manejada anónimamente

PERSONAL INFORMATION
INFORMACIÓN PERSONAL

M=22
F=18
1.
23-32=33
2. 33-42=7

1. Sex
Sexo
2. Age
Edad
3. Title (and/or grade)
Título (y/o grado)
4. Occupational status
Puesto desempeñado
5. How did you learn English? a. school and/or university b. informal situation $a \text{ and } b = 6$ $a = 26$
¿Cómo aprendiste inglés? a. en la escuela y/o universidad b. en situaciones informales 5. $b = 8$
6. How many years have you worked on your English before taking on this job?
¿Cuántos años has estudiado inglés antes de tener el presente trabajo? see reverse 6.
7. During that time I have worked in my English: a. intently b. more or less c. little $a = 5$ $b = 12$
Durante ese tiempo, he estudiado inglés: a. intensamente b. más o menos c. poco 7. $c = 15$
8. Do you feel that your pre-job English studies prepared you for job requirements in this language?
a. completely b. partially c. no $a = 3$ $b = 15$
¿Crees que los estudios de inglés anteriores al trabajo que desempeñas te prepararon para las demandas de inglés en tu trabajo? a. completamente b. parcialmente c. no 8. $c = 14$

Mark the letter that corresponds best to your situation

Marca la letra que corresponda mejor a tu situación

Scale : A. Daily (5 times per week) B. 2 to 4 times per week C. Once per week D. Never
Escala: A. Diario (5 veces por semana) B. 2 a 4 veces por semana C. Una vez por semana D. Nunca

LISTENING
ESCUCHAR

9. Mark the type of situations in which you listen to formal English (you may mark various)
a. lectures b. meetings c. discussions d. on the phone e. others

Marca el tipo de situaciones en la cual escuchas un inglés formal (puedes marcar varias)

a. conferencias b. juntas c. discusiones d. en el teléfono e. otras

10. How often do you listen formal English in the situations you marked in item 9?

(place the corresponding small and capital letters)

¿Qué tan seguido escuchas un inglés formal en las situaciones que marcaste en la pregunta 9? (coloca las letras mayúsculas y minúsculas correspondientes)

$aB = 3$ $bB = 9$
 $cA = 10$ $cC = 3$
 $bC = 5$ $dB = 2$
 $dC = 8$ $aC = 5$

small capital
minús mayús
 $bC = \underline{9}$
 $cB = \underline{7}$
 $aA = \underline{5}$
 $bA = \underline{7}$
 $dA = \underline{10}$

A = 32 B = 21 C = 30 D = 0

3.- Industrial engineer = 16
Accountant = 11
Business administration = 6
Electric engineer = 5
Computer engineer = 2

4.- Industrial engineer = 6
Supervisor = 5
Accountant = 4
Accountant Assistant = 4
Manager = 4
Process engineer = 3

Personnel manager = 3
Manufacturing engineer = 3
Personnel supervisor = 2
Maintenance engineer = 2
Analyst = 1
Design engineer = 1
Environment controller = 1
Computer engineer = 1

6.- Years	Persons
1	13
2	7
3	5
4	3
5	2
6	1
7	1

11. How often do you listen to technical English in the situations you marked in item 9? (place the corresponding small and capital letters)
 ¿Qué tan seguido escuchas un inglés técnico en las situaciones que marcaste en la pregunta 9? (coloca las letras mayúsculas y minúsculas correspondientes)

small capital
 mínus mayús
 $\underline{cA = 4}$
 $\underline{bB = 12}$
 $\underline{dB = 8}$
 $\underline{bA = 5}$
 $\underline{bC = 19}$

$cB = 10$ $aC = 13$
 $aA = 5$ $aB = 4$
 $cC = 13$ $dD = 1$
 $dC = 20$

SPEAKING
 HABLAR

$A = 14$ $B = 34$ $C = 65$ $D = 1$

12. How often do you need to speak English in formal situations in your work?
 ¿Qué tan seguido necesitas hablar inglés en situaciones formales en tu trabajo?

$A = 8$
 $B = 20$ $D = 2$
 $C = 10$

13. Tasks I am involved with when I talk in English in my job are (your may mark various options)
 a. I demonstrate how a thing works or how to use something b. I interpret graphs and tables
 c. I talk on the phone. d. other

Las tareas en las que me involucro cuando hablo inglés en mi trabajo son (marca varias si es necesario)
 a. demuestro cómo trabaja una cosa o cómo usar algo b. interpreto gráficas y tablas
 c. hablo por teléfono d. otras

14. How often do you use technical English in the situations you marked in item # 13?
 (place the corresponding small and capital letters)
 ¿Qué tan seguido usas un inglés técnico en las situaciones que marcaste en la pregunta # 13? (coloca las letras mayúsculas y minúsculas correspondientes)

small capital
 mínus mayús
 $\underline{cA = 10}$
 $\underline{bC = 10}$
 $\underline{cC = 11}$
 $\underline{aB = 9}$
 $\underline{cB = 10}$

$A = 20$ $bB = 8$ $dC = 3$ $bA = 2$
 $B = 30$ $aC = 6$ $cA = 6$
 $C = 30$ $dA = 2$ $dB = 3$

15. The area of my job where I use technical English is
 El area de mi trabajo donde uso el inglés técnico es

See reverse

READING
 LEER

16. How often do you read general newspaper or magazines in your work? $A = 4$ $B = 12$ $C = 15$
 ¿Con qué frecuencia lees periódicos o revistas en general? $D = 9$ _____

17. Mark the other type of documents you read in your work
 a. memos b. reports c. business letters d. brochures e. manuals f. periodicals
 g. policies h. all i. none j. other

Marca otro tipo de documento que leas en tu trabajo
 a. memos b. reportes c. cartas de negocios d. folletos e. manuales f. revistas
 especializadas en el tipo de trabajo que desempeñas. g. reglamentos h. todos i. ninguno
 j. otros

18. How often do you need to read the documents you marked on item # 17?
 (place the corresponding small and capital letters)
 ¿Con qué frecuencia necesitas leer documentos que marcaste en la pregunta 17? (coloca las letras mayúsculas y minúsculas correspondientes)

small capital
 mínus mayús
 $\underline{aB = 10}$
 $\underline{bC = 9}$
 $\underline{bA = 11}$
 $\underline{aA = 7}$
 $\underline{bB = 6}$

$eA = 2$ $eB = 9$ $cA = 3$ $fC = 6$ $fB = 2$
 $aC = 13$ $dA = 1$ $eC = 6$ $dC = 4$
 $cC = 6$ $dB = 12$ $gB = 6$ $cB = 3$

$A = 24$ $B = 50$ $C = 39$

15. - Medical = 5
Television = 5
Batteries = 4
Plastic lenses = 4
Automobiles = 4
Vacuums = 4

lamps = 3
Recycling = 3
Machinery plans = 2
Environmental laws = 2
Sewing = 2
Airline = 2

19. You need to read in your job in order to

- a. translate to other people b. follow instructions and steps c. to be informed d. other

Necesitas leer en tu trabajo para:

- a. traducir algo para otras personas b. para seguir pasos e instrucciones c. para estar informado

d. otras

$$\begin{array}{r} a=2 \quad b=7 \\ \hline c=10 \quad bc=11 \\ abc=7 \end{array}$$

WRITING

ESCRIBIR

20. How often do you write personal letters or messages using informal language in your job?

¿Con qué frecuencia necesitas escribir cartas o mensajes usando un lenguaje informal?

$$A=7 \quad B=7 \quad C=18 \quad D=8 \quad \underline{\hspace{2cm}}$$

21. What type of documents do you need to write in your job? (you may mark various)

- a. business letters b. reports c. memos d. manuals e. proposals
f. all g. none h. other

¿Qué tipo de documentos necesitas escribir en tu trabajo? (marca varias si es necesario)

- a. cartas de negocios b. reportes c. memos d. manuales e. propuestas
f. todos g. ninguno h. otros

22. How often do you use technical English in the documents you marked in question # 21? (place the corresponding small and capital letters)

¿Qué tan seguido usas el inglés técnico en los documentos que marcaste en la pregunta # 21? (coloca las letras mayúsculas y minúsculas correspondientes)

$$\begin{array}{lll} eB=6 & cC=8 & fC=1 \\ aB=4 & dC=10 & g=4. \\ cB=12 & bC=5 & A=15 \\ eC=7 & aC=1 & B=34 \quad C=32 \end{array}$$

small minús	capital mayús
<u>aA</u>	<u>2</u>
<u>bB</u>	<u>8</u>
<u>cA</u>	<u>5</u>
<u>bB</u>	<u>4</u>
<u>bA</u>	<u>8</u>

23. What would you suggest for English teaching programs to change in order to be more effective?

¿Qué cambios recomendarías en los programas de enseñanza del inglés para que sean más efectivos?

Homogenization in EFL groups = 16	Focus on listening = 3
Smaller groups = 15	Everyday situations = 15
Reduction of grammar = 10	Inclusion of technical language = 11
Conversation = 19	Preparation of instructors = 4

CULTURE

CULTURA

People of different cultures follow different rules in conversation, such as whose turn it is to talk, whether and when you might interrupt, how much information you must make explicit in a question or in an answer, etc. What is normal in one culture might be offensive in another one. It would be interesting for this research project to find out whether you have observed difficulties of this kind, which do not have to do anything with either the language or personal likings or dislikings.

Gente de diferentes culturas siguen diferentes reglas en la conversación, tales como el saber de quién es el turno para hablar, cuándo puedes interrumpir, cuánta información debes hacer explícita en una pregunta o en una respuesta, etc. Lo que es normal para una cultura, puede ser ofensivo para otra. Sería interesante para este proyecto darnos a conocer si has observado dificultades de este tipo que no tienen nada que ver con el manejo de la lengua misma o con gustos o diferencias personales.

24. Have you observed or experienced any difficult situation due to cultural-conventional discrepancies?

¿Usted ha observado o experimentado alguna dificultad debido a diferencias culturales-convencionales?

Yes 26 No 14 Circle the space below that describes your experience

a. Often b. sometimes c. never

Si _____ No _____ Encierra en un círculo el espacio de abajo que describa tu experiencia

a. frecuentemente b. algunas veces c. nunca

25. if your answer is positive, please describe some of your experience.

Si tu respuesta es afirmativa, por favor describe tu experiencia.

- Americans like to go straight to the point
- Interruptions
- Americans talk to blue-collar workers.
- Courtesy rules.

Thanks for your cooperation
Gracias por tu cooperación

Appendix E
Teachers' questionnaire: tally sheets

Questionnaire

For the realization of a project through which certain aspects of the English program at I.T.E.S.M. Campus Cd. Juárez will be explored, I would appreciate your collaboration in answering the following questionnaire.

TEACHER'S NAME _____ COURSE _____

BOOKS _____

Mark with a checkmark the frequency in which you practice or encourage the use of four skills.

Scale: High: more than ten times in one class hour. Medium: five to ten times. Low: less than five times. None: zero

Frequency

	high	medium	low	none
1. GENERAL				
Listening			I	0
Speaking	I			0
Reading				0
Writing	II			I
2. FORMAL				
Listening	I			0
Speaking	I			I
Reading			II	0
Writing	I			0
3. INFORMAL				
Listening	I			0
Speaking	0			I
Reading	0			0
Writing	0			
4. TECHNICAL				
Listening	0	II		
Speaking	0	0		
Reading	0	III		
Writing	0	I		
5. Cultural- interactive situation				
	II			I

6. Suggestions
Cultural interactive sit = |||
Technical language = |||
Placement test = |||

Size of groups = |||
American culture course = |||
Speaking = |||

Daily classes = |||
EFL courses = I
(last semester)
TOEFL course = I

Thanks for your cooperation!

Questionnaire

For the realization of a project through which certain aspects of the English program at I.T.E.S.M. Campus Cd. Juárez will be explored, I would appreciate your collaboration in answering the following questionnaire.

TEACHER'S NAME _____ COURSE _____

BOOKS _____

Mark with a checkmark the frequency in which you practice or encourage the use of four skills.

Scale: High: more than ten times in one class hour. Medium: five to ten times. Low: less than five times. None: zero

Frequency

	high	medium	low	none
1. GENERAL				
Listening	7	10	1	0
Speaking	1	13	4	0
Reading	4	10	4	0
Writing	2	8	7	1
2. FORMAL	high	medium	low	none
Listening	1	10	7	0
Speaking	1	9	7	1
Reading	3	13	2	0
Writing	1	9	8	0
3. INFORMAL	high	medium	low	none
Listening	1	8	9	0
Speaking	0	10	7	1
Reading	0	4	14	0
Writing	0	4	9	5
4. TECHNICAL	high	medium	low	none
Listening	0	2	9	7
Speaking	0	0	10	8
Reading	0	3	11	4
Writing	0	1	10	7
5. Cultural- interactive situation	high	medium	low	none
	2	11	4	1

6. Suggestions
 Cultural interactive sit = 14 Size of groups = 3 Daily classes = 3
 Technical language = 5 American culture course = 3 EFL course = 1
 Placement test = 4 Speaking = 3 (last semesters)
 Thanks for your cooperation ! TOEFL course = 1

Appendix F

Calculations for hypotheses in section 4.1.

Hypothesis # 1

Concerning English as a foreign language, college graduate employees in twin plants think that they have a higher demand for mastering listening and speaking than reading and writing skills in their workplaces.

LISTENING AND SPEAKING

LISTENING

	A	B	C	D
Formal	32	21	30	0
Technical	<u>14</u>	<u>34</u>	<u>65</u>	<u>0</u>
	46	55	95	0

TOTAL

$$\text{A} = 46 + 28 = 74$$

$$\text{B} = 55 + 50 = 105$$

$$\text{C} = 95 + 40 = 135$$

$$\text{D} = 0 + 2 = 2$$

SPEAKING

	A	B	C	D
Formal	8	20	10	2
Technical	<u>20</u>	<u>30</u>	<u>30</u>	<u>0</u>
	28	50	40	2

READING AND WRITING

READING

	A	B	C	D
Informal	4	12	15	9
Technical	<u>24</u>	<u>50</u>	<u>39</u>	<u>0</u>
	28	62	54	9

TOTAL

$$\text{A} = 28 + 22 = 50$$

$$\text{B} = 62 + 41 = 103$$

$$\text{C} = 54 + 40 = 94$$

$$\text{D} = 9 + 8 = 17$$

WRITING

	A	B	C	D
Informal	7	7	18	8
Technical	<u>15</u>	<u>34</u>	<u>32</u>	<u>0</u>
	22	41	40	8

A= daily B= 2-4 times a week C= once per week D=Never

Note: Formal language calculations are not included in reading and writing because it is supposed this kind of language is commonly used in these abilities. The same applies for informal language in speaking. See Methodology part.

Hypothesis # 2

The use of formal language among college graduate employees is thought to have a higher demand in the listening skill than in the speaking ability.

	FORMAL		INFORMAL	
	Listening	Speaking	Reading	Writing
A	32	8	4	7
B	21	20	12	7
C	30	10	15	18
D	<u>0</u>	<u>2</u>	<u>9</u>	<u>8</u>
TOTAL	83	40	40	40

Hypothesis # 3

According to college graduate employees' point of view, technical language is needed more often in listening/speaking than in reading/writing skills in their jobs.

TECHNICAL	A	B	C	D	
Listening	14	34	65	0	
Speaking	<u>20</u>	<u>30</u>	<u>30</u>	<u>0</u>	
	34	64	95	0	TOTAL 34+64+95+0= 193
Reading	24	50	39	0	
Writing	<u>15</u>	<u>34</u>	<u>32</u>	<u>0</u>	
	39	84	71	0	TOTAL 39+84+71+0= 194

A= daily B= 2-4 times a week C= once per week D=Never

Note: Each letter (A,B,C, or D) shows the number of times obtained in that frequency. For instance, in *formal listening* it was obtained 32 times this answer in A=daily.

Hypothesis # 4

Most of the Mexican personnel working in twin plants perceive problems regarding the cultural-conventional rules in conversation.

Perception of Cultural- Conventional Problems

Specification	#	%
Yes	26	65
No	14	35
Total	40	100

Hypothesis # 5

Based on college graduate employees' opinions, the pre-job English studies of students at undergraduate level are not sufficient for the later requirements in their jobs.

The Manner Pre-Job English Studies Employees' Pre- pare for Job Require- ments

Mode	#	%
Partially	15	46.87
No	14	43.75
Completely	3	9.37
Total	32	99.99

Appendix G
Calculations for teachers' questionnaire
answers

NOTE: There are no calculations for the hypotheses in this section since such hypotheses require only to compare results from section 4.1. (already presented) and the following calculations of section 4.2. are based on the teachers' responses regarding the type of language encouraged by them.

GENERAL LANGUAGE

	High	%	Medium	%	Low	%	None	%
Listening	7	9.722	10	13.888	1	1.388	0	0.000
Speaking	1	1.388	13	18.055	4	5.555	0	0.000

Total	8	11.110	23	31.943	5	6.943	0	0.000
Reading	4	5.555	10	13.888	4	5.555	0	0.000
Writing	2	2.777	8	11.111	7	9.722	1	1.388

Total	6	8.332	18	24.999	11	15.277	1	1.388

Percentages calculated over the total of 72 responses

FORMAL LANGUAGE

	High	%	Medium	%	Low	%	None	%
Listening	1	1.388	10	13.888	7	9.722	0	0.000
Speaking	1	1.388	9	12.500	7	9.722	1	1.388

Total	2	2.776	19	26.388	14	19.444	1	1.388
Reading	3	4.166	13	18.055	2	2.777	0	0.000
Writing	1	1.388	9	12.500	8	11.111	0	0.000

Total	4	5.554	22	30.555	10	13.888	0	0.000

High = more than ten times Medium = five to ten times Low = less
than five times None = zero

Percentages calculated over the total of 72 responses

INFORMAL LANGUAGE

	High	%	Medium	%	Low	%	None	%
Listening	1	1.388	8	11.111	9	12.500	0	0.000
Speaking	0	0.000	10	13.888	7	9.722	1	1.388

Total	1	1.388	18	24.999	16	22.222	1	1.388
Reading	0	0.000	4	5.555	14	19.444	0	0.000
Writing	0	0.000	4	5.555	9	12.500		6.944

Total	0	0.000	8	11.110	23	31.944	5	6.944

Percentages calculated over the total of 72 responses

TECHNICAL LANGUAGE

	High	%	Medium	%	Low	%	None	%
Listening	0	0.000	2	2.777	9	12.500	7	9.722
Speaking	0	0.000	0	0.000	10	13.888	8	11.111

Total	0	0.000	2	2.777	19	26.388	15	20.833
Reading	0	0.000	3	4.166	11	15.277	4	5.555
Writing	0	0.000	1	1.388	10	13.888	7	9.722

Total	0	0.000	4	5.554	21	29.165	11	15.277

High = more than ten times Medium = five to ten times Low = less than five times
 None = zero

Percentages calculated over the total of 72 responses

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VITAE

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