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CARRERA DE LINGÜÍSTICA E IDIOMAS

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To my dear parents: Nicasio Alejandro Quispe and Elsa Mamani. To estimate the debt I owe them requires a lifespan of endless extent.
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ABSTRACT

In Bolivia, at the university level, English is taught for Specific Purposes (ESP) and for General Purposes (EGP) as well, and in the primary and especially secondary level, English is taught for General Purposes, but generally students finish schools with a low level of English language. This has to change with the new educational law. Hence in higher education we have to concentrate on English for Specific Purposes (ESP) which is known as Technical English. To do this, it is necessary to design ESP courses for all departments of both private and public universities. For this reason, the objective of the research is to find out the attitudes, needs and objectives on students and professors in the Department of Agronomy ‘UMSA’ (Universidad Mayor de San Andrés) in order to make a preliminary Course Design on English for Specific Purposes (ESP) for the Department of Agronomy. To achieve the general and specific objectives I divided the research in six chapters.

The research approach I used was mixed, since I used the combination of quantitative and qualitative approach, but the design I applied was the design with dominant approach; where the quantitative approach was the most dominant and some of the elements of qualitative approach were used such as the open interviews. The type of research was Descriptive with a non experimental design. Students and professors of Agronomy Department were the population, they were addressed by applying questionnaires and open interviews to a sample of students and professors. The results demonstrated that students and professors of the Agronomy Department had a positive attitude towards the English language and they had needs and objectives in terms of English for Specific Purposes The specific objectives of the research were accomplished.

The case study done in the Agronomy Department established the following elements in the preliminary course design: Common and dynamic axes, the Goals, the objectives, the
syllabus which is divided into the Foundation course and English for Specific Purposes, the eclectic Methodology applied in the course, Materials and finally the Evaluation of the ESP course. To finish this chapter a review of theoretical and practical aspects of ESP course design around the world was done. So ESP has to be established not only in the Department of Agronomy but in all tertiary education in Bolivia because students, professors and professionals nowadays have needs and objectives in terms of English for Specific Purposes. And with these results I can say that students in the Agronomy Department are motivated to learn English because of a positive attitude towards the language of science, technology and communication with the world. For these reasons, it is essential to work on English for Specific Purposes for all departments, for all regions of Bolivia in public and private universities in order to increase the quality of our Bolivian professionals.

Key words: ESP, higher education, course design, Agronomy, students, professors, attitude, needs, syllabus
CHAPTER I: INTRODUCTION

1.1. Introduction

In general the universities in Bolivia do not consider English as a main subject for improving the full development of students. Many departments in the Public University of La Paz region known as “Universidad Mayor de San Andrés”, UMSA hereafter, do not take into account English in the syllabus of the thirteen colleges, and the departments that include English teach it as General English. But this is changing nowadays with the teaching of ESP (Appendix 1).

However most Bolivian universities currently recognize the importance of English. It is taught as a career in some of the leading universities in Bolivia. The Public universities that have English as a career are the following ‘Universidad Mayor de San Andrés’ (La Paz city), ‘Universidad San Simón’ (Cochabamba city), ‘Universidad Mayor de San Francisco Xavier’ (Sucre city) and ‘Universidad Autónoma Gabriel René Moreno’ (Santa Cruz city). And private universities with English Department are: ‘Universidad del Valle’ (La Paz and Cochabamba), ‘Universidad Católica’ (La Paz and Cochabamba), ‘Universidad Evangélica’ (Santa Cruz), etc. It is worthwhile to mention that both public and private universities give English as a means for different departments (Pol, 2000:3).

English for General Purposes, EGP, is in all educational levels in our country. In the primary level, schools are teaching EGP; in the secondary level EGP is taught as well. This is the reason why Bolivia needs a change in the teaching of English. Many institutes of Bolivia teach English as an EGP, these courses are taken by school and tertiary students.

As we can see, there are many English courses that highlight EGP, but they do not consider the real necessities and wants of the students. It is more noticeable in the
tertiary level, where students need the English for many specific purposes in order to succeed in his/her careers.

So it is essential a change in the English courses at the universities around Bolivia. There is a necessity of English for Specific Purposes (ESP). With ESP, university students will learn the English that they will need and will apply in their future performance as competent professionals in their respective field of specialization. All professionals need English, because English is the language of the globalization.

The present research will take into account a general view of the UMSA principles, goals, objectives, missions and syllabi of thirteen faculties. I am going to show a case study of Agronomy Department for giving some basis for designing a course on English for Specific Purposes for the Agronomy department and it will be useful for all the careers at higher education level in order to improve the qualifications of our professionals in comparison with professional/scientists of other countries.

So, it is going to show you the attitudes, needs and objectives of students and professors of Agronomy department to design a preliminary Course Design, taking into account the real needs and objectives of Agronomy Department.

1.2. Background of the study

After the World War II, the world changed; the science, technology and economy had an expansion. The development of Economies in the 60´s resulted in science and technology development; as a consequence English became the international language. Currently English is unquestionable the world’s language of academia; English is a Lingua Franca in Academic Settings (Mauranen et al, 2010:183; Cariaga, 2008:20).
At worldwide level there are many researches related to an ESP course design, the research and scientific world created many specialized journals such as: English for Specific Purposes, Applied linguistics, Journal of English for Academic Purposes, etc. even in South America we have the journal “the ESPerient” (Brazil). Bolivia in general does not have serious journals specialized in English for Specific Purposes, there is a lack of Bolivian researchers at an international level.

In terms of time and organization, the NUR University (Santa Cruz) offers Technical English for many departments: Administration, Agricultural Economics, Communication, Systems Engineering, Commercial Engineering, Public Relations and International Relations. There are three semesters of English: a well known one Basic English and two courses of Technical courses. The first technical course at an intermediate level and the second technical English is at an upper intermediate to advanced level (Pol, 2000:3).

In our context, we can mention many works related to ESP: Cariaga (1982) “Towards a new methodology for teaching English as a second language for Bolivian students”; “A suggested approach to syllabus design for English language areas in the departments of Linguistics and Languages of the universities of La Paz and Potosí” (Loza, 1993); “Course design to teach at the university level” (Paucara, 1993); “A suggested methodology for English in science and technology in San Andres University” (Nina, 1994).

Works related to attitudes are “Teachers and student’s attitudes role and behavior in a foreign language classroom” (Rodriguez, 1995); “Motivation and attitudes in the learning of English language” (Vargas, 2000). Other researches are “The need of English for Specific Purposes in Bolivia (Nikravan, 1997); “A suggested ESP syllabus and materials to teach technical English at University level” (Pol, 2000); “Reading activities for an ESP course” (Quisbert, 2000); “A suggested ESP syllabus for an
executive secretary course in El Alto city (Mamani, 2006); “Theoretical and Practical Aspects for ESP Course Design” (Cariaga, 2008); and “Design of an EAP course centered on the Communicative language teaching CLT methodology project addressed to the staff of lectures at San Francisco de Asis University” (Mamani, 2010).

1.3. Statement of the problem

Nowadays, we can see in our context many advertisements of English teaching; they propose a better methodology and results in terms of time and cost. This indicates that our schools, mainly public schools, are not fulfilling with the process of teaching and learning of English. Students that have already finished the fourth level of secondary school need to have the basic skills on English. But when students enter to the tertiary level and they need the English for many specific tasks, they cannot use the English not even for basic requirements.

The same occurs in other countries as Taiwan in China “Students leaving the public school system in Taiwan are poor in listening, speaking and writing in English” (Chia et al, 1999:107). This aspect in Bolivia is currently discussed in the new law known as “Ley de la Educación Avelino Siñani – Elizardo Pérez”, where a student has to know three languages: a native language as “Aymara”, a foreign language like English and the Spanish language (Estado Plurinacional de Bolivia, 2011:8,9).

The same thing happens with graduate students, who really need to use the international language for specific purposes in order to have a better performance in their respective fields. The cause may be located in the higher education system, because it does not have a contextualized curriculum design, they are incorporating texts, methodologies and materials of other countries. The main focus on English teaching at university level is the general purposes, using imported textbooks, without using authentic materials, without elaboration of Course design, etc.
As a proof that students have bad experiences in Technical English at universities, it can be mentioned a survey carried out by Pol (2000:7) she has chosen by hazard some universities in ‘Santa Cruz’ city that have ESP courses (sample 200 students of different public and private universities). And the results were:

a) There is no good syllabus to teach English at universities which reached a frequency of 60%.
b) 70% that means most teachers improvise the ESP courses and they teach whatever they want without a program.
c) 75% of teachers are not able or are not well prepared to teach Technical English considering students’ needs and objectives.
d) 80% of students prefer to learn English at private institutions instead of taking it at universities because they do not have confidence on university’ programs.
e) 90% of students take the subject, I mean the ESP as a requirement, and they need it for credit.
f) 85% of students showed a lack of interest on ESP.

The attitudes of students were similar to department’s authorities, the last people tried to reduce or eliminate English courses at university level. This indicates the necessity for looking for some solutions in order to improve courses of English for Specific Purposes. Facilitators, deans, students, etc. have to be involved in the design of ESP in their respective departments (Pol, 2000:7).

The problems mentioned above, are clear in all departments of public and private universities. In the case of UMSA, English is not incorporated in the Syllabus in many departments (Appendix 1). For instance in the Agronomy department, English is not included in the Syllabus, although the students have many necessities of English for Specific Purposes.
The Agronomy department works especially with country people where “Aymara” is used more than English, as a result of this, it is important to consider the attitudes of students and professors have towards English, because they influence the process of teaching – learning. So, I am going to answer with the research two questions. The first question is related with the attitude toward English of students and professors. And the second question refers to English needs of students and professors of the Agronomy department (Universidad Mayor de San Andres).

As we can see there is a shortage of ESP courses in the higher education and as a result of this the following questions will lead the present research:

Which are the attitudes of students and professors of the Agronomy department towards the English language?

Which are the main needs and objectives in terms of English for Specific Purposes for students and professors of the Agronomy Department (Universidad Mayor de San Andrés)?

1.4. Objectives

1.4.1. General objective

- To find out the attitudes towards English, the needs and objectives on students and professors in the Department of Agronomy of Universidad Mayor de San Andrés (UMSA) in order to design a preliminary ESP (English for Specific Purposes) course for Agronomy.
1.4.2. Specific objectives

- To identify the attitudes towards English as a second language on students and professors of the Agronomy Department.
- To determine the students and professors’ needs and objectives of the English language.
- To design a preliminary ESP course for the Department of Agronomy that can be adapted to all Departments at tertiary level.

1.5. Hypotheses

1) The professors and students of the Agronomy Department of the UMSA have positive attitudes towards English language.

2) The students and professors have needs and objectives in terms of an ESP course design.

1.6. Justification

Students take English in schools, but for them English is not an important subject so they do not learn English very well; when they go to the universities many of them do not take English and it is the beginning for the future problems because they cannot read, understand, write, etc. current material that comes in English; they cannot speak or write basic elements and so on. And today it is easy to see advertisements of jobs that include English as a main requirement to be accepted in a specific job, so it can be said that all the job requirements need basic skills in English, because it is an international language. As a consequence of that, it is essential to include English for Specific Purposes in all universities in order to qualify our Bolivian human resources.
ESP (English for Specific Purposes) has many purposes connected to the specific subject or field; the students need a quick and economical use of the English language. The last reason mentioned before is the main cause to include ESP according to the objectives and needs of different departments in the universities, especially in public universities, because ESP is more practical than EGP. A medical professional has different requirements in the English language, they will use different genre and technical terms; an agronomist will use terms related with the environment with different types of genre; etc. Different professions have different needs and objectives.

This work is useful in the field of science and technology, because Bolivia does not appear in the international context, and it is not due to the knowledge of our professionals but due to the use of English since for writing and sending scientific articles to international prestigious journals the main requirement is the English language, so authors have to write papers in English.

With the research I want to show that students and professors of Agronomy department have a good attitude to English and they have necessities and objectives of the English language such as reading specialized bibliography, understanding oral presentations, to interchange information with English speakers, writing scientific articles or papers for doing researches, etc. ; in order to develop a specialized course on ESP to increase the skills in the use of language, because some of the basic English courses at university are in the General English trend.

Along the research I want to give some elements to build Courses of ESP in all departments in both public and private universities in Bolivia to increase the qualification of our professionals. Because, for doing postgraduate courses, such as Master of Science, Doctor of Philosophy, etc. the English language is a compulsory requirement.
Finally, this research with the case study of Agronomy department will give some elements to include in the design of ESP curriculum to benefit all the departments at university level. With this work I want to give some guidelines and basis for including the English for Specific Purposes in all the Departments in private and especially in public universities in order to improve the profile and performance of our professionals in the nine regions of Bolivia. It is essential to remember that it is a preliminary work in this field, so it will be improved in many aspects with the help of professors specialized in their respective areas/fields and professors of English or people specialized in English.

1.7. Conceptual definitions

1.7.1. Attitude

An attitude is defined as the joint of reactionary beliefs, feelings and tendencies which are possessed by individuals in relation to specific objects, people or situations (Yánez, 2006:21).

1.7.2. Needs

The definition of need is the basis of any needs assessment. In general, the skeletal structure of a definition is most often expressed as a gap or measurable discrepancy between a current state of affairs and a desired future state. In short terms needs are conventionally defined as being something like the gap between what it is and what it should be (Keith, 1996:65).
1.7.3. Objective

Objective needs mean what the learner has to know in order to function effectively in the target situation (this would involve obtaining information about the situations in which the language will be used, readings textbooks, seminars, etc.) (Jordan, 1997:57).

In general the “Universidad Mayor de San Andrés” has its own objectives stated in the last congress (II internal congress, 2005), but they change for each one of the departments of it. In the present research, objectives mean the professional objectives of the Agronomy department in order to perform the profession with high quality.

1.7.4. Course design

Course design is a process that takes into account many considerations and theoretical matters on learners, goals, methods, materials, evaluation, etc. for designing the most adequate learning tasks for a specific group of students. A course is a programme that includes more than a syllabus. It includes:

a) Needs analysis
b) Objectives
c) Materials
d) Syllabus
e) Methodology
f) Evaluation
g) Feedback
1.7.5. English for Specific Purposes

ESP is not a methodology, but a course that responds to the students’ real needs in their respective area of specialization. It is not limited to specific terms or specific topics of a field; instead it is the acquisition of the potential communicative ability (oral or written) for a specific area to perform as the professionals of that area in the English language (Cariaga, 2008:16,17).

Therefore, ESP is connected with the needs and objectives of a specific field; it means ESP can vary according to the field being the objective the oral and written communication in the English language.
CHAPTER II: THEORETICAL FRAMEWORK

The theoretical framework is essential in one research, because it cannot be done if it is not interpreted, expressed or translated the problem with the base of theory and with limits of all the elements of the problem (Vega de la Torre, 2010:23). Considering it, this chapter will develop all the elements from which is constituted the topic of the research. It will describe the education in the world and in Bolivia. Then, the concepts of Attitude and motivation are described. The main theories of ESP and all the elements that are important to design a Course Design are described in the last part of this chapter.

2.1. Higher education

2.1.1. The university in the international context

Nowadays it is impossible to leave science and technology; if we leave them we are rejecting the future. It is known the problems that cause the style of development, where the science and technology play an important role, but we have to retake the best of them and in the best possible way. Universities around the world are mixing the theoretical classes with research in order to develop science and technology, being the research a central element in the international evaluation to the universities around the world (Alba, 1997:35).

But in Bolivia, our universities are still teaching just the theoretical part, reproducing the knowledge generated in other countries and their researches are unknown around the world being the main problems the knowledge of a lingua franca like English and little researches.

Universities around the world generally manage two languages. One is the national language and the other is the language of science and technology (English language),
with it they can read scientific articles and produce researches in all fields to increase the science and technology.

The university is a reflection, interpretation, explanation and anticipation place. The university has to be a trainer of human resources able to confront the new challenges of the world. Also the university has to train for the use of new technologies (Alba, 1997:46-48).

2.1.2. The Bolivian education

2.1.2.1. The Educational basis

Some of the education bases are:

a) The education in Bolivia is intracultural, intercultural and plurilingual in all the educational system. Starting from the empowerment of knowledge, wisdom and languages of the nations and native countrymen towns, the intercultural communities and “afrobolivians”. It promotes the interrelation and coexistence in the same conditions for all Bolivians, through the value and reciprocal respect among cultures.

b) The education is scientific, technical, technological and artistic developing the knowledge and wisdom from the point of view of native indigenous countrymen cultures, intercultural communities and “afrobolivians” *cosmovision* that is complementary with the universal knowledge and wisdom in order to contribute to an integral society development (Estado Plurinacional de Bolivia, 2011:3,4).

2.1.2.2. The Educational aims

a) To universalize our own knowledge and wisdom in order to develop an education from cultural identities.
b) To impel the scientific and technological research associated to the innovation and production of knowledge as a governing aspect against the poverty, social exclusion and environment degradation (Estado Plurinacional de Bolivia, 2011:5).

2.1.2.3. **The Educational objectives**

a) To develop a productive, technological, technical and scientific training from our own knowledge and wisdom, fomenting the research in relation to *cosmovision* and culture of the towns in complement with the advances of universal science and technology in all the Plurinational Educative System.

b) To promote the scientific, technical, technological and pedagogic research in the whole Plurinational Educative System, taking into account the base curriculum and the regionalized curriculums (Estado Plurinacional de Bolivia, 2011:5).

The objectives of the Bolivian education with the new educative law are focusing on the research, science and technology but the policies nowadays are not giving the conditions to change the education in Bolivia, because there are not adequate laboratories, there are not researches centers, schools and departments are not well equipped, etc.

2.1.2.4. **Linguistic and sociocultural diversity**

a) **Interculturality:** The development of interaction and interrelation from our own knowledge, wisdom, science and technology of each culture with other cultures; which strengthens our own identity and the interaction in equality of conditions among all Bolivian cultures with the rest of the world. It is promoted interaction practices among different peoples and cultures developing dialogue, coexistence and valuation attitudes among different visions of the world in order to plan and universalize our own wisdom.
b) **Foreign language teaching:** Foreign language teaching is commenced in gradual and obligatory way from the first years of school with relevant methodology and specialized staff continuing in all the levels of Plurinational Educative System.

c) **Regular Education:** To achieve trilingual communicative skills and aptitudes through the development of native indigenous languages, Spanish and one foreign language (Estado Plurinacional de Bolivia, 2011:7, 8).

In terms of languages, there is an emerging of native languages like “Aymara”, “Quechua”, “Guarani”, etc. They want to apply the curriculum in three languages, which is so useful for ours students, because we need a language to communicate in Bolivia (Spanish), a language for the countryside (native language) and a language for international communication (English language).

**2.1.3. The Bolivian university**

There is a big problem in our country, the governors, managers and even professors consider Bolivia does not have the capacities to develop science and technology; both concepts are developed in other countries and we have to limit ourselves just for being simple consumers of that knowledge.

An adequate curriculum needs to show that the University by itself makes science; in this context students and professors have to generate and spread science, as a result of that, science has popular characteristics breaking down the myth that “Science is unreachable for the population”. The curriculum should anticipate the way in which students will confront the future performance in their respective professions; the curriculum has to foresee the future requirements. This means to understand the relationship between present – future is the basis of the professional profile that should establish all curricular design in the university (UMSA, 2008:8-10).
The objective of higher education in Bolivia is to develop science, technology and innovation in order to respond to the necessities and social, cultural, economical and productive demands of the Plurinational State articulating the peoples and native indigenous countrypersons’ knowledge and wisdom with universal ones (Estado Plurinacional de Bolivia, 2011:19).

Universities in Bolivia are doing analysis of their situation in terms of science and technology development, they are conscious that science, education and technology have to be together to increase the quality of our third education or tertiary education.

The Public Bolivian university is a system of higher education constituted by Autonomous Public universities with the same hierarchy: San Francisco Xavier of Chuquisaca, San Andrés of La Paz, San Simón of Cochabamba, Tomas Frías of Potosí, Técnica of Oruro, Grabil René Moreno of Santa Cruz, Juan Misael Saracho of Tarija, José Ballivián of Beni, Nacional Siglo XX of Llallagua and Amazónica of Pando (Universidad Boliviana, 2005:3).

**2.1.3.1. The Bolivian university mission**

Public Bolivian university will develop its activities according to National plan of University development and its mission is to educate suitable professionals with high quality, academic excellence, critical conscience and the ability to create, to adapt, to transform the universal science and technology in order to foment national development and progress; to promote the scientific research and humanistic studies; to broadcast and increase the cultural heritage; and in order to contribute to the defense of country sovereignty (Universidad Boliviana, 2005:4).
2.1.3.2. The Bolivian university principles

Bolivian universities have many principles:

a) The autonomy and hierarchical equality in all the public universities.
b) Economical autonomy.
c) Free ideological independence between students and professors.
d) Academic liberty.
e) Classes’ liberty.
f) Research liberty.
g) Study liberty.
h) Professor – student co-government.
i) Property and university area inviolability.
j) Autonomy violation is as a system violation.
k) University teaching must be scientific, national and democratic.
l) Interdisciplinary guarantees the universal science dimension, techniques and the culture.
m) Relationship with the environment.
n) Ethical integrity.

The economic autonomy of Public universities is not affecting its development, because much of the money spent for universities are for the managers and salaries, but they are not being used for laboratory equipments, research centers, professor’s increase, etc.

Article 6: The public Bolivian university in the performance of its educative politics is national, scientific, democratic and anti – imperialist.
It is national, because it is an element of socio– economical and cultural reality, authentically Bolivian and it is at the service of Bolivia, considering Latin-American and universal context pursuing its economical, sovereign and integral development. It is scientific, because it uses the advances of science and technology reached by human being, making suitable to our reality over all metaphysics and dogmatic conceptions; and it joins constantly the theory with practice, with clear critical – dialectical sense, developing without restrictions the task of research to all the levels (Universidad Boliviana, 2005:3-5).

**2.1.3.3. The Bolivian University goals**

Bolivian public University has the following goals:

a) To contribute to the creation of a national consciousness, starting from knowledge of dependence, oppression and exploitation reality in Bolivia, on the perspective of its integration and free national determination.

b) To educate suitable professionals in all areas of scientific, humanistic, technological and cultural knowledge which responds to necessities of national and regional development and professionals have to be endowed of critical conscience.

c) To assimilate, to create, and to develop science and technology through objective research of reality, in order to transform it.

d) To identify the scientific and cultural work with popular interests, composing to them in the fight of national liberation.

e) To organize and to maintain Institutes assigned to cultural, technical and social development of workers (Universidad Boliviana, 2005:6).

All goals, principles and objectives are focusing on the development of science and technology that will be reached by the educational system. But to achieve those purposes
it is necessary to work with teacher of schools and professors of universities in order to change our reality.

2.1.3.4. The Bolivian University objectives

a) To plan and to coordinate academic activities of scientific-technical and social interaction research in order to establish an organic system of higher education in the country.

b) To contribute at plans building and to the improvement of university’s economy and social promotion in order to overcome current national and regional conditions in relation to political and cultural reality of Bolivia.

c) To create conditions for scientific analysis and research of Bolivian reality, promoting the most extensive academic liberty.

d) To direct professional’s scientific and humanistic education; with a deep social and historical sense.

e) To research, to enrich, and to develop popular and national culture in all its performance.

f) To defend country’s human and natural resources.

g) To promote university professors’ pedagogical, scientific and professional development.

h) To contribute to the politics’ planning and statement in order to compose national educational system.

i) To carry out the social mission, basically through social interaction as a way to identify the university with the people.

j) To assume the defense of basic principles that inspire and maintain the existence of Bolivian Public University, as well as organizing joint action of universities in the case of threat or actions to autonomy regime.

k) To strengthen the bonds among Bolivian public universities with the Latin American ones and with all universities and cultural centers around the world.
1) To generate own income, to get resources and distribute them in order to promote the growth of system’s universities (Universidad Boliviana, 2005:6).

An interesting part of Bolivian university objectives is to create own incomes, for instance a Department can generate money through researches, production, etc. Agronomy department is generating money selling products elaborated in their experimental centres; they are producing cheese, eggs, strawberries, fruits, etc.

### 2.1.4. Scientific and technological research

**Article 69.** The scientific and technological research is compulsory. It constitutes an indivisible element of academic training activity in all Departments of the Bolivian Public University.

**Article 70.** The linkage between technological and scientific research with teaching – learning and social interaction should be reflected to all the levels in the university System, in the academic structure, in the curricular objectives, plans, programs, methodologies and evaluation.

**Article 71.** The technological and scientific research should be oriented to the knowledge and clarification of Bolivian and Latin-American reality. To search concrete solutions to problems of production, management, development and productivity at regional, national and worldwide level.

**Article 72.** The university system should support permanent relationship with productive unities and with all organisms linked to social, technical and economical problems.
Article 73.- In the National University System and in each University will function an Academic Commission of technological and scientific research (Universidad Boliviana, 2005:18).

2.1.5. Agronomy Department

2.1.5.1. History of Agronomy Department

During the government of ‘Unidad Democrática Popular’ (October 10th 1982) in Bolivia was held The II congress of ‘Federación única de trabajadores campesinos Tupaj Katari’ where it was approved the requirement for the creation of Agronomy Faculty into ‘Universidad Mayor de San Andrés’. The Chancellor Pablo Ramos by popular demand of ‘Confederación Sindical Única de Trabajadores Campesinos de Bolivia (CSUTCB)’ authorized the functioning of Agronomy department beginning the academic activities on 20th April 1983 in La Paz city. The Agronomy Department was created by the university resolution number 1/966/102/83 of 9th June 1983 (Carrera de Ingeniería Agronómica, 1997:13).

This Agronomy department at the moment is 30 years old and it emerges by a regional demand, because La Paz has the three ecosystems of Bolivia: “Altiplano”, Valleys and Tropics. There are big quantities of lands that are not using for production, so it is needed professionals for doing projects to increase the productivity of our soils.

2.1.5.2. Object of study

The study object of agronomists is the improvement of productivity and animal/plant production with the purpose for helping to the development of La Paz region and Bolivia country through recovering and updating of scientific technology (Carrera de Ingeniería Agronómica, 1997:15).
To increase the productivity students of the Agronomy Department are taking subjects related to conventional productivity and tools for ecological productivity. The first one caused many problems to health and ecology of the world, so the new tendency is the ecological production.

2.1.5.3. Objectives

The Agronomy department has the following objectives:

a) To impart theoretical and practical knowledge.

b) To wake up on students a critical analysis of regional and national reality.

c) To promote the reflection of actors and subjects who are involved in the teaching learning process with regard to study object and subject of change that is the farmer and his/her production system.

d) To promote the education of agronomists with objective and real knowledge about the problems in farming sector.

e) To promote in the agronomist the necessity to rescue ancestral technologies combining with modern technology for regional and national development.

(Carrera de Ingeniería Agronómica, 1997:15).

2.1.5.4. Structural framework

The scientific knowledge of social laws, of the nature and transmission of them is the objective of universities. These are the objectives for training professionals dedicated to the science, technology, transference, education and national socio-economic development. It implies three characteristics on the formative process of future agronomist: to have identity (solid principles and values), to have technical training (general and specialized) and to have the capacity of communication and dialogue (Carrera de Ingeniería Agronómica, 1997:25-27).
2.1.5.5. Agronomist engineer professional profile

The agronomist engineer trained in this unity is a professional with basic, scientific and solid education. The professional has knowledge of fundamental principles that govern the process of animal and crop production. He/she possesses an orientation toward specialization in the last study cycles. The engineer when he concludes his/her studies possess scientific tools and suitable techniques in order to understand and solve with competence and efficiency the problems related to the animal and crop production. Therefore they are generating research and applied technology to the necessities and reality of our country. The agronomist has the capacity to solve rural sector problems immersed in social production. The professional is trained to plan and manage small and huge animal and crop enterprises. He/she is able to give consultancy and to participate in the solutions into his/her sphere (Carrera de Ingeniería Agronómica, 1997:27,28).

2.2. ESP research

At the worldwide level there are many researches related to ESP course design, the research and scientific world created many specialized journals such as: English for Specific Purposes, Applied linguistics, Journal of English for Academic Purposes, etc. even in South America we have the journal “the ESPerential” (Brazil). Bolivia in general does not have serious journals specialized in English for Specific Purposes, there is a lack of Bolivian researchers at an international level.

Chia et al. (1999:113,114), made a research related to “English for college students in Taiwan: a study of perceptions of English Needs in a medical context”. Here, about 60% of students established that English is important for studies and future careers: Reading was the most important skill for them where the establishment of ESP courses is important.
“A new ESP course in the present Chinese context” gives a description of new RESP (Reading English for Specific Purposes) course in the present Chinese context and an evaluation of its impact on the students’ learning interests and strategies (Yun-Zhu, 1999:S57).

Maclean et al., (2000:27) in “The evolution of an ESP programme in Cuba” reached the conclusion that small groups of teachers convinced of the relevance and value of an ESP approach through the experiential workshops/courses; and ESP will have its effects on the undergraduate curriculum.

“Designing EAP reading courses at the university level” indicates that it is possible to do an ESP course in reading through the Complementary Pyramid Syllabus Design by the combination of discrete elements of language and purposes to acquire a language (Spector-Cohen, 2001:367).

In Brazil, an analysis of the ESP project 1980 – 2005 was designed, where the structure and the ESP methodology is developed. The project showed sustainability because it applied many strategies with their professionals of English language and adapting recipes of Europe countries (Bailin, 2006:434).

“In a strange an uncharted land: ESP teachers’ strategies for dealing with unpredicted problems in subject knowledge during class”. It indicates that teachers take two strategies to deal with ignorance in the specialized subject of students, and they are: avoidance and risk taking (Wu and Badger, 2009:19).

As you can see in previous paragraphs, there are many researches at the world wide level related to ESP, the world is in the process of globalization, therefore an international language is needed for science, technology and communication,
In our context, we can mention many works related to ESP: Cariaga (1982) “Towards a new methodology for teaching English as a second language for Bolivian students”; “A suggested approach to syllabus design for English language areas in the departments of Linguistics and Languages of the universities of La Paz and Potosí” (Loza, 1993); “Course design to teach at the university level” (Paucara, 1993); “A suggested methodology for English in science and technology in San Andres University” (Nina, 1994).

Works so related to attitudes are “Teachers and student’s attitudes role and behavior in a foreign language classroom” (Rodriguez, 1995); “Motivation and attitudes in the learning of English language” (Vargas, 2000). Other researches are “The need of English for Specific Purposes in Bolivia (Nikravan, 1997); “A suggested ESP syllabus and materials to teach technical English at University level” (Pol, 2000); “Reading activities for an ESP course” (Quisbert, 2000); “A suggested ESP syllabus for an executive secretary course in El Alto city (Mamani, 2006); “Theoretical and Practical Aspects for ESP Course Design” (Cariaga, 2008); and “Design of an EAP course centered on the Communicative language teaching CLT methodology project addressed to the staff of lectures at San Francisco de Asis University” (Mamani, 2010).

2.3. Attitude

“An attitude implies a reaction either positive or negative toward a specific object, person or situation”. Attitudes are like mental disposition/arrangement in order to act for or against something. The attitudes are mental structures that organize and evaluate the information. The previous definitions mentioned coincide in four basic points:

a) An attitude is an inclination to conduct oneself, it does not refer to behavior itself.

b) An attitude is persistent; it does not mean that it would be immutable. As the person acquires his/her attitudes it changes him/her more predictable and consistent actions.
c) The attitude produces consistency in the behavioral manifestations. These manifestations may adopt verbal forms, feeling expressions or actions of approval or rebuff to the object.

d) The attitude has a directional quality; the attitudes ever are given toward an object. (Yánez, 2006:19).

The attitudes are not innate; the appearance of an attitude depends on learning, process which is connected to the social development of a person. The second criterion indicates that attitudes are not temporal but they are stages more or less persistent once constituted (Summers, cited by Yánez, 2006:20).

2.3.1. Linguistic attitudes

The attitudes are not innate but acquired and developed through the contact between the person and social context that is around him. Therefore it can change with the global context. The attitude concept may apply to any object of the language or languages that we find in our context (Yánez, 2006:18).

It is known that the social and individual attitudes with regard to language can influence mainly in the development of the course. A positive attitude to language usually is related with the culture appreciation of that language. And one positive appreciation to learning is a reflection of high motivation, enthusiasm and predisposition on the part of students (Castro and Ramos, 2007:49).

All speakers of any language develop attitudes towards their own language and varieties, as well as to other groups. It is clear when we hear in Bolivian context: English is the technology language; French is the sweet language, etc. These situations are manifested properly in actions to speakers. For instance one English speaker has more possibilities to find work than a native language speaker (Yánez, 2006:18-20).
The same author mentioned that the reaction is given in the frame of the ideology of his/her society. In other terms, the person reacts toward foreign language speakers or to a specific variety, and then identifies the speaker with his/her language. Therefore when the person reacts to a language reacts to the speaker as well. So the language acts as an indicator or identifier of group that allows to discriminate or to admire to its members. In summary, a point of departure for the judgment formation toward the languages or varieties is the location of its speakers into the social and economical scale (Yánez, 2006:25).

It is impossible to reject that in the Bolivian society the contact with foreigners is present in all the fields. The language is not the exception, in the same way that we value the science, culture and foreign material, we are setting on giving the privilege status that we try to maintain and acquire.

2.3.2. Attitude and motivation

Motivation is a construct with a high degree of complexity. It implies “The choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will expert in that respect” (Keller, 1983 in Palacios, 2001). In terms of second or foreign language learning, it includes the learners ‘reasons for studying the language’ (Gardner, 1985 in Palacios, 2001:30). His/her attitudes toward the target language and its speakers, the power of their desire to learn the L2, which involves effortful behavior. It is known that motivation has an educational and personal dimension in addition to the social one (Dorney, 1996 in Palacios, 2001:30).

Stereotyping usually conveys some type of attitude toward the culture or language in question. Attitude, like all aspects of affect and cognition development in Homo sapiens, develop early in childhood and are the cause of parents’ and peers’ attitudes, of contact with people who are different in any number of ways, and of interacting affective factors
in the human experience. These attitudes form a part of one’s perception of self, of others, and of the culture in which one is living (Brown, 2000:180).

Many researches were made in terms of the relationship between attitude, motivation and the process language learning. One research concludes that motivation is a construct made up of certain attitudes. The most relevant of these is group – specific, it means the attitude learners have toward the members of the cultural group whose language learners are learning. An English – speaking Canadians’ positive attitude toward French – Canadians, a desire to understand them and to empathize with them, will guide to an integrative orientation to learn French, which in 1972 study was found to be a significant correlate of success (Gardner and Lambert’s, 1972 in Brown, 2000:181).

Another research on relationship between attitudes and language success found that the relationship between Chinese, Japanese and Mexican students’ achievement in English and their attitudes toward self, the native language group, the target language group, their reasons for learning English, and their reasons for traveling to the United States. Each one of the three works yielded slightly different conclusions, but for the most part, positive attitude toward self, the native language group, and the target language group enhanced proficiency (Oller et al, 1977, Chihara and Oller, 1978; Oller et al, 1978 in Brown, 2000:181).

2.3.3. Motivation

Second language or foreign language learners benefit from positive attitudes and the negative attitudes might lead to decreased motivation, very probably because of decreased input and interaction, to unsuccessful attainment of proficiency. A facilitator needs to change the negative attitude of the students by exposure to reality, for instance by encounters with actual people from other cultures, authentic materials for teaching, etc. Negative attitudes generally emerge from one’s indirect exposure to a culture or a
group by television, movies, news media, books, and other sources that may be less than reliable (Brown, 2000:181).

The motivation is an internal state that activates guides and maintains the behavior. Why do we do something? The answers include descriptions of motive, necessities, incentive, fear, goals, social pressure, confidence on oneself, interests, curiosity, failure or success attribution, beliefs, values, expectation, etc. Some psychologists explain the motivation in terms of personal qualities or individual characteristics. Other psychologists consider the motivation as a state, a temporal situation (Woolfolk, 1996:330).

The motivation that is derived of factors such as interest and motivation is known as intrinsic motivation. This kind of motivation is the natural tendency to endeavor the personal interests and to practice the capabilities, and in the process of doing it, to search and to conquer challenges. On the contrary, when we do something in order to obtain a grade or reward, to avoid punishment, to please facilitators or another reason which does not have relation with the task itself, we experiment extrinsic motivation (Woolfolk, 1996:330).

There are four scientific theories about motivation: Behaviouristic motivation (the motivation is seen as a reward or incentive), humanistic motivation (the intrinsic motivation is the necessity for self-satisfaction), social motivation (it is a combination of theories of both behaviouristic and cognitive approach) and cognitive motivation (the behavior is determined by our thoughts) (Woolfolk, 1996:335).

As I have mentioned in previous paragraphs, the importance of attitude in the process of teaching-learning process is significant. The attitude is very valuable for the design of a course, because it predisposes to students with a high or low efficiency to the learning of English for Specific Purposes. The first part of the questionnaire was developed to take into account this valuable aspect for learners (Appendix 2). Facilitators have to increase
the positive attitude to English, so the students will be more motivated, as a result of that there will be better results on the process of English language learning.

2.4. Language Teaching Approaches and Methods

“Language teaching has a long, fascinating but rather tortuous history, in which a debate on teaching methods has evolved particularly over the last hundred years. These methods derived partly from social, economic, political, or educational circumstances, partly from theoretical considerations, partly from practical experience, intuition, and inventiveness” (Liu and Shi, 2007:69).

2.4.1. The grammar – translation method

It emphasizes the teaching of the second language grammar; its principle technique is translation from and into the target language. In practice, reading and writing are the major focus; little or no systematic attention is paid to speaking or listening. It is like the teacher centered – model, because learner is passive and facilitator is the authority. This method often creates frustration of students by a tedious experience of memorizing endless list of unusable grammar rules and vocabulary. But it is used nowadays, because there is no inherent contradiction between grammar instruction and communicative approach, and it is easy to apply (Liu and Shi, 2007:70).

2.4.2. The direct method

It is a radical change from Grammar – Translation method by the use of the target language as a means of instruction and communication in the language classroom, and the avoidance of the use of the first language and of translation as a technique. Here, the language learning was viewed as analogous to the first language acquisition. It demands
facilitators who are native speakers or have native–like fluency in the foreign language (Liu and Shi, 2007:71).

2.4.3. The audio–lingual method

It was derived from linguistics and psychology. Audiolingualism reflects the descriptive, structural and contrastive linguistics of the fifties and sixties. Its psychological basis is the behaviorism which interprets language learning in terms of stimulus–response. It uses dialogues as the chief means of presenting the language. Listening and speaking were now brought right into the centre of the stage in this method. It attempted to make language learning accessible to large groups of ordinary learners. But in this method students were not able to transfer the knowledge to real communication because it ignores the communicative competence in teaching practice (Liu and Shi, 2007:71).

2.4.4. The communicative approach to teaching

Under the influence of British Applied Linguistics, the communicative approach was advocated in language teaching. It saw the need to focus on communicative proficiency rather than on mere mastering of structures. It develops procedures for teaching the four skills. It encourages activities that involve real communication and carry out meaningful tasks. Language learners are expected to be negotiators, facilitators to be an organizer, a guide, an analyst, a counselor, or a group process manager (Liu and Shi, 2007:72).

The main purpose of language is communication, therefore this theory focuses on the communication process. It is most important to communicate than to know all the structures or grammar of a language. The theory is based on the acquisition of our first language, because we have learnt by communication, we did not learn the structure and grammar of the language.
2.5. English for Specific Purposes (ESP)

ESP or technical English itself is not a methodology, ESP materials and materials give examples of almost every possible methodology and technique, it means, that ESP include more than one methodology and technique, the use of one or another methodology and technique varies in relation to teaching – learning process. It implies that ESP is a course that responds to the students’ needs of one specific area (Strevens, 1977 in Cariaga, 2008:17). “ESP or EST must be considered as a course for potential professionals who want to use the language either in their future studies or professions” (Cariaga, 2008:17).

ESP must be seen as an Approach and not as a Product. ESP is not a particular kind of language or methodology, nor does it consist of a particular type of teaching. ESP is based on the question: Why does this learner need to learn a foreign language? Therefore in summary ESP is an approach to language teaching in which all decisions, as the content and method, are based on the learner’s reason for learning (Hutchinson and Waters, 1993:26).

Language for Specific Purposes designs the language use class which is associated to a very specialized communication inside a variety of disciplines or sciences (Castro and Ramos, 2007:43). ESP as an approach to language learning, which is based on learners’ needs and objectives is essential for the development of a particular Course Design (Mamani, 2006:12).

In our definition we use absolute and variable characteristics. In the Absolute characteristics:

a) ESP is designed to meet specific needs of the learner.
b) ESP makes use of the underlying methodology and activities of the disciplines it serves.

c) ESP is centered on the language (grammar, lexis, and register), skills, discourse and genres appropriate to these activities.

The variable characteristics:

a) ESP may be related to or designed for specific disciplines.
b) ESP may use, in specific teaching situations, a different methodology from that of General English.
c) ESP is likely to be designed for adult learners, either at tertiary level institutions or in a professional work situation. It could, however, be used for learners at secondary school level.
d) ESP is generally designed for intermediate or advanced students: Most ESP courses assume basic knowledge of the language system, but it can be used with beginners. (Dudley-Evans and St John, 1998:3).

2.5.1. History of ESP

The World War II was the starting point for a great expansion of the scientific, technical and economic activity. The 60’s had a development in its economy, as a consequence of this, the science and technology grew doing of English the international language of science, technology, commerce, communication, etc. English is unquestionably the world language of academia (Cariaga, 2008:20; Mauranen et al, 2010:183).

“Even though ESP has a recognized period of about 50 years as English teaching area of concern, it has existed since 1576, by that time the need for commercial English and the Protestant refugees in England started the use of Business English. Strevens with his
needs analysis and Swales with his Episodes in ESP looked at the grammar and technical analysis of scientific writing” (Strevens, 1977 in Cariaga, 2008:21).

“Ewer and Latorre (1971) cited in Cariaga (2008:21), focused on the grammar and vocabulary of Scientific and Technical English, using the ‘Lexicostatistics’ of Swales. Lackstrom, Selinker and Trimble (1973) introduced a new approach that Trimble summarized in his book English for Science and Technology. Munby also introduced the Needs Analysis model, English for Occupational purposes, for commercial correspondence, for the target situation analysis and communicative needs. The trend was to analyze texts and materials for a specific area” (Cariaga, 2008:21).

Hutchinson and Waters (1993:38) identified three main reasons common to the emergence of ESP:

a) The expansion of science, technology and economy after the Second World War (1945). As a consequence of it a world unified and dominated by two forces was created: Technology and commerce. The progress soon generated a demand for an international language (ESP).

b) A revolution in Linguistics. There was a trend to courses based on specific needs. The change focused on real communication. Hutchinson and Waters stated: “Tell me what you need English for and I will tell you the English that you need”.

c) The learner was considered the most important on course design. It was translated mainly on taking texts from the learners’ arena. It would improve the motivation and as a result making the learning better and faster.

ESP appeared as a phenomenon after some experience in the world in different places and with different areas of specialization as well. As it was mentioned before, it began in the 1960’s and it develops its own methodology by the assistance of different sciences like education, psychology, etc. (Cariaga, 2008:22).
2.5.2. English Language Teaching (ELT)

Without doubts the incorporation of foreign language teaching in the curriculum was due to the fact that all students can, through the knowledge of a foreign language, have access to huge specialized information, therefore they can enlarge their profession and work horizons (Dirección de Currícula, 2001:21). English language teaching (ELT) in general terms, has two main strands: English for General Purposes (EGP) and English for Specific Purposes (ESP).

2.5.2.1. English for General Purposes

In some situations, English for General Purposes has been named ‘TENOR’ it means ‘the Teaching of English for No Obvious Reason’, that is, no reason obvious to the learner. Most of the world`s learners of English are schoolchildren… who are too young or too distant from any real communication in English to have any identifiable needs. The language in a course for EGP is a goal in itself. (Jordan, 1997:4; Castro and Ramos, 2007:44).

As you can analyze, EGP has to be taught in our country in the regular education (primary and secondary) and the ESP needs to be taught in the tertiary level or higher education (public or private institutions).

2.5.2.2. English for Specific Purposes

Every one of the specialized areas need appropriate teaching materials, detailed studies or restricted languages and specific registers and/or genders carried out on the basis of large samples of the language used by the particular persons concerned. In short terms ESP is a mean in order to reach the goals (Cariaga, 2008:16; Castro and Ramos,
ESP in the literature has been divided in many strands, I have adapted and generalized one trend (Figure 1).

**Figure 1.** Strands of TEFL adapted from Jordan, 1997:3

### 2.5.3. Characteristics of ESP

As I mentioned before, ESP is a course, a mean to reach something; if ESP is a course it has to have many elements to be carried out considering the real needs and objectives of students of a specific area of specialization. ESP is mainly based on:

a) The language specific needs of the learner

b) The learner’s needs of the field or discipline content occupations and activities.

c) The linguistic items (syntax, lexis, discourse) appropriate to those activities.

d) The emphasis on the relevant skill the learners need.
It is not a methodology, but a course that responds to the student’s needs and objectives of one specific area; ESP is not restricted to specific terms or specific topics of a field of knowledge, instead ESP is the acquisition of the potential communicative ability for a specific field (Cariaga, 2008:18).

Other characteristics of ESP are the following:

a) ESP makes use of the underlying methodology and activities of the discipline it serves.
b) ESP is centered on the language, grammar, lexis, register, skills, discourse and gender appropriate to these activities.
c) ESP may use, in specific teaching situations, a different methodology from that of General English.
d) ESP may be related or designed for specific disciplines like soils, biology, ecology, research workshop, etc.
e) ESP is likely to be designed for adult learners, either at a tertiary level institution or a professional work situation.
f) ESP is generally designed for intermediate or advanced students, although it can be applied to beginners.
g) ESP is goal directed.
h) ESP courses are based on a need analysis.
i) Often there is a very clearly specified period of the course.

Hutchinson and Waters (1993:49) refer to ESP as an approach that it is not a matter of teaching specialized varieties of English, nor just a matter of science words and grammar for scientists; ESP is an approach to language learning, which is based on learners’ needs and objectives.
Language for Specific Purposes (LSP) course must set the students various tasks, and that these tasks must reflect the structural characteristics of the student’s field, and must be as integrated as possible and not divided into minute, discrete elements. The mentioned before fits into four essential principles:

**a) Reality control:** Control of the difficulty of the task demanded of the LSP student is exercised by means of the procedures of simplification appropriate to the field of activity constituting his/her special purpose.

**b) Nontriviality:** The learning tasks required of the learners must be … perceived for the sake of students as meaningfully generated by their special purpose.

**c) Authenticity:** The language taught to students must be the language naturally generated in their respective specialization area.

**d) Tolerance of error:** Content error and of formal adequacy will be judged unacceptable only to the extent that they entail errors of communicative adequacy (Jordan, 1997:113).

ESP in our context began in 1990 on Computer science, Petroleum engineering and Biology in “Universidad Mayor de San Andrés”, at that time the main focus was on reading and vocabulary. Then Tourism Department included ESP, where the objective was to improve the communicative skills on professional activities and situations. With regard to ESP in El Alto city, ‘La Universidad Pública del El Alto’ (UPEA) in the Linguistics and Language department is taught English and ‘Aymara’ language as general purposes. The same happens with other institutes such as ‘Infocal’, ‘Englishland’, ‘San Pablo’, ‘Centro Boliviano Americano’, etc. which train in technical professions including General English in their programs (Castro and Ramos 2007:48).
2.6. Course Design

A course is a programme which involves issues of policy, planning and the educational context. The course design or curricular design is a group of activities and tasks that guide to the objectives and competences’ formulation, which follow the educative objectives and goals of Education Ministry. The curricular contents are selected and organized on knowledge areas and their objectives; to identify strategies of learning – teaching; to select materials and didactic means; and finally to identify the instruments to evaluate both students learning and facilitator effectiveness (Gutiérrez, 2006:10; Cariaga, 2008:16-18).

2.6.1. Introduction

An ESP course has to be organized and systematized according to the objectives and competences of the students. They require the language for specific purposes. Doctors do not expect teachers to diagnose, prescribe or analyze illnesses cures, they expect some understanding of the language used in the interaction, and so they can use the language when they need it on real situations. An agronomist does not expect an English teacher to know how to do research, but knowledge of how language is used in the process of research. Thus the teacher takes into account the content of the field issues (Cariaga, 2008:16-18).

According to Dudley-Evans and Jhon (1998:145,146) there are a number of parameters that need to be investigated in making decisions about ESP course design:

a) Should the course be intensive or extensive?
b) Should the learners’ performance be assessed or non-assessed?
c) Should the course deal with immediate needs or with delayed needs?
d) Should the role of the teacher be that of the provider of knowledge and activities, or should be as a facilitator of activities arising from learners’ expressed wants?

e) Should the course have a broad or narrow focus?

f) Should the course be pre-study or pre-experience or run parallel with that study or experience?

g) Should the material be common-core or specific to learners’ study or work?

h) Should the group taking the course be homogeneous or should it be heterogeneous in the sense of training level?

i) Should the course design be worked out by the language teacher after consultation with the learners and the institution, or should it be subject to a process of negotiation with the learners?

For the characteristics of the agronomy department I am going to consider the following elements:

a) **Intensive or extensive**

The agronomy ESP course will be extensive. An extensive ESP course occupies only a small part of a student’ timetable or a professional person’s work schedule (Dudley-Evans and John, 1998:146).

b) **Assessed or no assessed**

English will be a subject, because of that the ESP courses will be assessed. A compulsory ESP course, where learners’ performance in English is assessed along with other subjects at the end of a semester or academic year, has definite advantages: It raises the status of ESP and should ensure that it is taken seriously by both students and the Agronomy department (Dudley-Evans and John, 1998:148).
c) Immediate or delayed needs
The ESP course design for the agronomy department will be in a continuum, because it will answer the immediate needs and delayed needs. By immediate needs we refer to those needs that students have at the time of the course, while by delayed needs we refer to those that will become more significant later (Dudley-Evans and John, 1998:148).

d) Teacher as provider or as facilitator/consultant
Teacher in the present course design and in all tertiary level will be a facilitator, where the ESP teacher manages rather than controls. S/he may not make decisions about the course design but will negotiate with the learners about what is most appropriate to include and when to include it. S/he will often get members of the class to bring material for exploitation in class. A facilitator generally acts as a kind of intermediary between the specialist teacher and the students (Dudley-Evans and John, 1998:149).

e) Broad or narrow focus
By a broad focus we refer to a situation where we concentrate on a range target events, such as study or professional skills, or a variety of genres. For these characteristics I am going to take into account for the Agronomy department the broad focus. But it does not imply that the skills are taught in a general and superficial manner. Skills will be dealt with in great detail (Dudley-Evans and John, 1998:150).

f) Pre-experience or in parallel with experience
According to the context of Bolivian universities, it will be applied the parallel with the experience. By parallel with experience we mean that English course runs concurrently with the study course or professional activity (Dudley-Evans and John, 1998:151).
g) Common-core or specific material
Because the Agronomy department is involved of one kind of knowledge and students have the same knowledge I will include a continuum between common-core and specific material.

By common-core material we mean material that uses carrier content which is either of a general academic nature or of a general professional nature. By specific material we mean that the material uses carrier content that is drawn directly from the learners’ academic or professional area (Dudley-Evans and John, 1998:152).

h) Homogeneous or heterogeneous groups and motivation
Another factor to consider is whether the ESP class is made up of a homogeneous group from one discipline or profession, or a heterogeneous group of learners from different disciplines, professions or levels of management (Dudley-Evans and John, 1998:152,153). Because all of students belong to the Agronomy department the group is considered as homogeneous group.

i) Fixed course design or flexible negotiated course design
The new trends advocate to the flexible negotiated course design. A flexible and negotiated course design allows room for change based on feedback from learners. It is important that learners need to be involved in making decisions about their learning and assessing their own progress (Dudley-Evans and John, 1998:153,154).

2.6.2. Orientations in educational curriculum design

2.6.2.1. Designs based on an organized body of knowledge
This has been the predominant design until relatively recently. It considers the direct link between an academic discipline (or other established body of knowledge) and
content and procedures used during instruction. It emphasizes on the intellectual
development of the student, although, as in the case of structural or functional
syllabuses, the primary point is transfer of a systematic body of knowledge (grammar or
communicative functions). The main academic sources for designs are included in
literature and linguistics (Keith, 1996:49).

2.6.2.2. Designs based on specific competences

It emphasizes performance objectives and learning of skills for specific purposes,
although skills can be taken to mean almost any level of specificity (the four macro
skills: reading, writing, speaking, listening versus using the target language to
understand articles, papers, to give a short lecture, etc.). Specification of objectives is a
major component of this kind of design (Keith, 1996:49, 50).

2.6.2.3. Designs based on social activities and problems

It was the most influential in second (as opposed to foreign) language teaching. Here it
is emphasized the use of the language for immigrants or people who have as a second
language English, they need English for survival and daily life. Language is viewed as a
tool for coping with the social and economic demands of everyday (Keith, 1996:50).

2.6.2.4. Designs based on cognitive or learning processes

It has been a peripheral rather than mainstream way of approaching instructional design.
The focus is on learner, the ways learner thinks (over the content of instruction per se)
and aims at strengthening the learners’ ability to examine and solve problems on their
own. It tries to get an autonomous learner; the teacher is only a guide (Keith, 1996:50).
2.6.2.5. Designs based on feelings and attitudes

It represents the humanistic, affective end of the planning spectrum, an appealing region to those who believe that learning must bring people together and that the capacity for learning increases with one’s openness to others. Another element to consider is that it focuses on the development of the person through the language teaching (Keith, 1996:50).

2.6.2.6. Designs based on needs and interests of the learner

The needs-based curricula have been in vogue for the past twenty years, and nowadays is the main orientation in course design. The central characteristics of the approach include systematic assessment of learners’ language needs, along with consultation of learners at appropriate points in the planning and instruction processes (Keith, 1996:50).

2.6.3. Needs Analysis

“Needs analysis can be described as: the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities… it makes use of both subjective and objective information” (Jordan, 1997:22).

“Needs analysis is the process of establishing the what of a course followed by the how and the evaluation which will show the effectiveness of them. Needs analysis is the cornerstone of ESP for a specific English course” (Cariaga, 2008:25).
2.6.3.1. Introduction

Any course design is based on the authentic real needs of students. Thus, the designer’s or the teacher’s task is to specify the needs. With the identification of those needs designers or/and teachers will determine the content, the time, class size, motivations, likes, etc. Needs analysis must be the starting point for devising syllabuses, courses, materials, and the kind of teaching and learning that takes place (Cariaga, 2008:25; Jordan, 1997:22).

At this level it is important to mention that the curriculum includes the knowledge, skills, and attitudes which the students possess and which constrain their ability to perform their roles. We need to consider in the students: proficiency level of entry, motivation, previous learning experience, cognitive style and preferred learning strategies all need to be taken into account by facilitators, materials writers and syllabus writers (Keith, 1996:51).

2.6.3.2. Approaches to needs analysis

2.6.3.2.1. Target – situation analysis (TSA)

The best known framework for TSA is the rigorous model devised by Munby (1978 in Jordan, 1997:23, 24). Munby’s approach focuses on the students’ needs at the end of a language course and target – level performance. Munby is concerned with communicative syllabus design. The key element in this model is the ‘Communication Needs Processor’ (CNP). After operating Munby’s model, the final product is a profile of the students’ language needs. But the instrument was inflexible, complex and time consuming. As a result, all subsequent systems of need analysis have aimed at simplicity.
2.6.3.2.2. **Present – situation analysis (PSA)**

The PSA ascertains the students’ state of language development at the beginning of the language course. The sources of information are: the students themselves, the teaching establishment and the user institution. In this approach the learner is at the centre of the system, which includes the surrounding society and culture (Jordan, 1997:24).

2.6.3.2.3. **Learning – centered approaches**

Hutchinson and Waters (1987 in Jordan, 1997:25) make a distinction between learner-centered and learning–centered. Learner–centered states that “learning is totally determined by the learner”. And learning–centered involves learning as “a process of negotiation between individuals and society” which includes teaching, syllabus, methods, materials, etc. Hutchinson and Waters make a distinction between target needs versus learning needs.

Target needs refer to what the learner needs to do in the target situation. It is subdivided into: necessities or objective needs (they mean what the student has to know in order to function effectively in the target situation), lacks (it represents the gap between the target proficiency and what the student knows already) and wants or subjective needs (Bearing in mind the importance of learner motivation in the learning process, learner perceived wants cannot be ignored). Hutchinson and Waters posed the following questions:

a) Why is the language needed?
b) How will the language be used?
c) What will the content areas be?
d) Who will the learner use the language with?
e) Where the language be used?
f) When the language be used?
(Jordan, 1997:25).

Learning needs refer to what the learner needs to do in order to learn. They are the needs for learning that students have. For this part Hutchinson and Waters posed the following questions:

a) Why are the learners taking the course?
b) How do the learners learn?
c) What resources are available?
d) Who are the learners?
e) Where will the ESP course take place?
f) When will the ESP course take place?
(Jordan, 1997:25).

2.6.3.2.4. Strategy analysis

In the 1980s the focus of needs analysis turned more towards answering the question How?, It means the methodology employed to implement language programs. The methodology covers the process of teaching and learning. Allwright was the pioneer in this area; he included the same terms of wants, needs and lacks of Hutchinson and Waters. Related areas in a strategy analysis are preferences in group size, correction procedures and method of assessment. But this approach had problems when students utilize learning strategies or styles that are perceived by teachers to be inappropriate or inefficient and teachers have to guide students through cultural differences, academic cultural conventions, differences in learning strategies and methods of teaching (Jordan, 1997:27).
2.6.3.2.5. Means analysis

This approach has the attempt to adapt language courses to local situations; it means to accommodate what are frequently seen to be constraints like in Bolivian context: attitude to English culture, available resources, materials, equipments and methods. For doing it, it is necessary to do a study of local situation in order to implement our own models and discourages the impositions of alien models (Jordan, 1997:27, 28).

A diagrammatic summary is made in figure 2 in order to summarize the various approaches and terms in Needs analysis.

Figure 2. Summary of Needs analysis (Jordan, 1997:29)
2.6.3.3. Methods for collecting data

There are many methods for gathering data about the learners. I am going to summarize these methods.

2.6.3.3.1. Advance documentation

Advance documentation can be requested for information about educational background, previously attended courses, etc. (Jordan, 1997:30).

2.6.3.3.2. Language test at home

A language test can be conducted in the students’ home country before they are accepted by a university, etc. overseas, or before they join a course. The test should indicate the strengths and weaknesses and indicate the length and type of language course needed (Jordan, 1997:30).

2.6.3.3.3. Language test on entry

A language test can be conducted on entry to the target institution. The test will indicate the students’ language learning priorities for short courses or part – time classes (Jordan, 1997:30).

2.6.3.3.4. Self – assessment

Students have to assess themselves. It includes many ways of self evaluation like questionnaires, checklists, forms, etc. It raises their self – awareness of language skills and abilities (Jordan, 1997:31).
2.6.3.3.5. **Observation and monitoring**

Students’ difficulties can be observed in English classes and in written homework assignments. It is mainly used to identify problems in speaking and listening skills; it also identifies students who lack self-confidence and who need extra help (Jordan, 1997:33).

2.6.3.3.6. **Class progress tests**

Information can also be gained from informal class progress tests, which are a feature of many courses of more than one month’s duration. This test has two objectives: to motivate students and to provide feedback on learning difficulties (Jordan, 1997:33).

2.6.3.3.7. **Surveys**

Surveys of students’ language and skills use and difficulties can be undertaken by means of questionnaires given directly to the learners. If this is done on a sufficient large scale it will identify the students’ perceived needs. It also can give the profile of a typical student. These questionnaires can be given to: sponsors, teachers, representative users in the target situation, and staff in the subject departments (Jordan, 1997:33).

2.6.3.3.8. **Structured interview**

It consists of prepared questions to which the answers are noted or recorded, allowing follow-up of points arising. It has many advantages: none of the questions will be left unanswered, the gatherer can clarify misunderstandings and finally, the gatherer can follow-up any avenue of interest which arises during the question and answer session (Jordan, 1997:34).
2.6.3.3.9. Learner diaries

They can be used as a way of gaining insights into students’ learning experiences, as they are based upon introspection. Inside it, there is information about difficulty, understanding, satisfaction with the course, etc. (Jordan, 1997:34).

2.6.3.3.10. Case – study

The case study approach can be utilized as a way of obtaining in – depth information and insights and they can be very illuminating (Jordan, 1997:35).

2.6.3.3.11. Final tests

The realization of this test at the end of the course will give information on learning and teaching difficulties including teachers and professors (Jordan, 1997:36).

2.6.3.3.12. Evaluation/feed back

There is usually final evaluation or feedback, often in the form of questionnaires, to both students and staff. There may also be a round – up discussion between students and their tutors (Jordan, 1997:37).

2.6.3.3.13. Follow – up Researches

It can be taken some time after a course has finished, both with the students and the receiving subject – specialists department. The questionnaires may be used on students in order to know the most and least useful in the course. With staff can be used a questionnaire, interview or a letter in order to know their perceptions of students performance (Jordan, 1997:37).
2.6.3.3.14. Previous research

The last method for gathering useful information about the needs and deficiencies of learners is by examining previous research e.g. analyzing the use of language in different modes and registers, analyzing the moves of difficulty, studying particular group of learners, etc. (Jordan, 1997:37).

There are many means for gathering information about needs of students: diagnostic questionnaires, interviews (teachers and students), informal talks to authorities, designers, the discipline teachers, colleagues and employers. The most relevant information is: professional information about the learners (the tasks, skills and activities in which they will be involved), personal information about the learners (previous learning experiences, socio – cultural background, their expectations, reasons for studying English, likes, dislikes, etc.), linguistic information (previous studies of English, the languages they know), the learners’ English language information (their level of English, the skills they have, their lacks, etc.), the learners’ specific educational/occupational purposes and information about the environment, the time of study, the resources they have, etc. (Cariaga, 2008:28, 29).

2.6.4. Elements of course design

2.6.4.1. Goals and aims

Goals are very general and broad. Aims are more specific and are long term. They give the general trend that the curriculum has to follow in order to achieve specific objectives. Aims are the purposes to which learning will be put after the end of the course. The difference between goals and objectives can be distinguished by the general and the specific (Cariaga, 2008:47).
2.6.4.2. Objectives

It is the aspiration to achieve in the education of the students in order to solve a problem. It is the social assignment. It answers the question what to teach for? The educative objectives are an essential component in the practice’s design of a course teaching. Objectives are the pedagogic intentions of a particular course of study to be achieved within a period of time and in principle measurable by some assessment device. For formulating them it is stated the educative intention of facilitators in terms of the students will do. (CEPIES, 2010:53; Cariaga, 2008:47).

The educational objectives are explicit formulations which describe the expected behaviors after accomplishing a specific process of learning – teaching (figure 3).

![Diagram showing the relationship between objectives, learning-teaching process, and expected behaviors](image)

**Figure 3.** Educational objectives (CEPIES, 2010:61)

For formulating an objective the key elements are:

a) The content (The verb and the topic)
b) The process (How?)

c) The conditions of the achievement behavior (What for?)

Objectives can be stated in behavioral terms, a kind of behavior that is shown by an action verb and accepted as evidence that the learner has achieved his/her objective (Cariaga, 2008:48).

2.6.4.2.1. General Objectives

They give a synthetic, holistic and global vision of a specific course. The student needs to form a clear and global vision that the course/subject proposes and it is achieved through the formulation of general objectives. General objectives are usually set out in a curriculum by the institutional authorities or course designers (CEPIES, 2010:63; Cariaga, 2008:47-49).

2.6.4.2.2. Specific Objectives

They state the way in which each section of the course/subject (Unit, module, etc.) will be broached with the purpose of teaching and learning it. Both objectives are complementary; as a result they affect each other. They are separated from the general objective being achieved in shorter time (one week, one month or one bimester). The objectives can be stated at different levels (figure 4) the general objectives are interpreted by facilitators on specific objectives (CEPIES, 2010:57; Cariaga, 2008:47-49).
Facilitators and students can develop their own course objectives and learners can become involved in setting their objectives and their achievements (Cariaga, 2008:46).

2.6.4.2.3. Technical aspects of objectives’ formulation

The objectives will be focused in terms of what the students will achieve in order to reach the global proposal of the course through the specific terms in which the course will be organized (Specific objectives). For formulating them, it is essential to consider the following aspects:

a) The actions (an infinitive verb)

b) The content (the object of the verb)

c) The complement (conditions or intentions of the achievement; e.g.: as, with the intention of, in order to, etc.) (CEPIES, 2010:65)
The new law “Avelino Síñani – Elizardo Pérez” considers four elements in the formulation of the integral objectives:

a) To be
b) To know
c) To make
d) To decide

E.g.: We value and preserve the life (to be), articulating knowledge and wisdom to understand the nature in all dimensions (to know), applying in the sustainable productive use of natural resources (to make) in order to live well with their communities and society (To decide) (Estado Plurinacional de Bolivia, 2011:3).

Therefore professors have to consider the new law of education adding the four dimensions into their objectives but without leaving the essence of ESP course, where the objectives are based on needs analysis and taking into account a specific field of specialization.

2.6.4.3. **Content or syllabus**

The organization and selection of the course’s contents are intimately related with the learning objectives, with the shape in which they will be learned and with the evaluation.

2.6.4.3.1. **Concept of syllabus or content**

The syllabus or content refers to that part of the curriculum which deals with the question: What will be taught in the course or subject? The curricular contents are the dynamic socio cultural products used in the learning process in order to achieve the specific objectives and competences. They are referred to the acquisition of concepts,
knowledge, dexterity, abilities, habits, aptitudes, attitudes and appreciation of national and universal values; they are selected and organized from the different curricular areas according to the local, regional and national requirements (Cariaga, 2008:31; Gutiérrez, 2006:102-103).

2.6.4.3.2. **Types of contents**

The contents in general can be divided into four contents: conceptual contents, procedural contents, attitudinal contents and transverse contents.

2.6.4.3.2.1. **Conceptual contents**

They constitute the wisdom’s group. They are those concepts which involve the knowledge scope. These contents are referred mainly to concepts, data, facts, ideas, laws, theories, and principles. They are not only mental objects but they are the instruments, which applied in new phenomenon can be understood and they can be ordered, combined and changed in our mind (Gutiérrez, 2006:104).

2.6.4.3.2.2. **Procedural contents**

The procedural contents constitute ‘to know how’; it means the capacity to do/make a group of ordered action for developing a specific competence. They are the knowledge for doing things such as: numbers, ideas, objects and people. They are related with the solution of problems or with the knowledge acquisition. So they are referred with the execution of procedures, strategies, techniques, skills, dexterities, methods and so on. Mainly they have the characteristics of being practical because they are based on fulfillment of actions and operations guided to the achievement of specific purposes (Gutiérrez, 2006:104).
2.6.4.3.2.3. **Attitudinal contents**

They are the tendencies that conduct us to act in one or in another sense in agreement with the personal valuation on specific object, person, fact or situation. They represent the expression of values and norms which guide the development of moral conscience and interpersonal relationship. In general all attitudes possess three components: emotional (feelings and preferences), cognitive (knowledge and beliefs) and behavioral (actions and declarations of intentions). Therefore they reflect the ideal and aspirations to be achieved by the students as elements of the society (Gutiérrez, 2006:105).

2.6.4.3.2.4. **Transverse contents**

They are the problematic fields inserted in all the education. These kinds of contents consider the problems that are affecting to the Bolivian society and they require high priority attention. The education has to give the opportunity to the students to know these problems in order to contribute to the solutions of them. They propose learning activities used to develop simultaneously other competences in different knowledge areas. Four transverse elements are known: Education for health and sexuality, education for gender equity, education for the environment and education for democracy (Gutiérrez, 2006:105).

The linguistic content is included in all the process, I mean, the content of a language class is the topic to be developed such as the forest vocabulary, listening, etc. The procedural content refers to how can I teach the vocabulary related to forest and how can I teach the listening. In the attitudinal content, it will be taught the values of doing something. And finally with the transverse contents it is taught general topics with the use of language like the care of our forest to avoid the climatic change.
2.6.4.3.3. Types of syllabuses on ESP

The various types of syllabus could be subsumed under three broad headings, but they can vary on the specialized bibliography: Content or product, skills and methods or process.

2.6.4.3.3.1. Content or product

2.6.4.3.3.1.1. Grammatical / Structural / Language form

It is the oldest one and the most common syllabus. In essence, a grammatical syllabus focuses on aspects of grammar rules like verb concordance, sentence patterns, etc. and then grades them for teaching, supposedly from the simple to the complex, and according to frequency and usefulness. If it is focused on spoken language it is known as an ‘oral – structural method’. The most rigid grammatical syllabuses supposedly introduced one item at a time and required mastery of that item before moving on to the next. (Jordan, 1997:60; Cariaga, 2008:32, 33).

2.6.4.3.3.1.2. Notional – Functional

It lists conceptual meanings (notions: e.g. time, space, quantity, objects, entities, etc.) expressed through language (logical relationships, etc.) and the communicative purposes (functions) for which we use language (e.g. greetings, requests, apologies, descriptions, comparisons, cause and effect, etc.). It sets realistic learning tasks based on real – world language and recognizes that speaker must have a real purpose for speaking; since it is communicative it will be motivating. Because this approach stresses communication, the processes of communication are frequently utilized in the learning – teaching process, e.g. problem – solving, obtaining information; this syllabus is often called ‘the communicative approach’. The disjunction between form and function makes the
syllabus design more complex than it would have been (Jordan, 1997:60; Cariaga, 2008:33).

2.6.4.3.3.1.3. Situational

This lists the situations or contexts in which the English language will be used and analyses the language needed for those situations. Here, the real life context is principal. One advantage of the situational approach is that motivation will be emphasized since it is ‘learner – rather than subject – centered’. E.g. registration with the university, opening a bank account, finding accommodation, visiting the doctor or dentist, asking questions in a seminar of agronomy, etc.) (Jordan, 1997:61; Pineda & Espejo, 2009:23).

2.6.4.3.3.1.4. Topic

It may have a similar approach to that based on situations. Topics are selected from the students’ specialist studies and the language analyzed: appropriate syntax and lexis are then practiced. E.g. environment, global warming, soil structure, soil fertility, etc. (Jordan, 1997:61).

2.6.4.3.3.1.5. Content – based

Although all the above types of syllabus are based on content of one form or another, ‘content – based’ has come to mean, in recent years, the specific requirements of particular academic disciplines, e.g. Agronomy, economics, engineering, etc. It stresses on teaching students the language, skills and academic conventions associated with their particular subject and its content (subject – matter). (Jordan, 1997:61).
2.6.4.3.3.2. Skills

Sometimes this involves a syllabus being based on one or more of the four traditional language skills: productive skills (speaking and writing) and receptive skill (listening and reading). In such a skills – based syllabus, the constituents of the skills are often highlighted – the sub-skills or micro-skills. At the university reading is the most important (macro - skill) and it can be subdivided into a number of micro – skills, e.g. skimming, scanning, reading for information, ideas, opinions, etc. Where some of the micro – skills involve more than one language skill (summarizing for both writing and speaking) there may be courses in learning skills, with the stress on effective strategies. If study purposes are added to language skills, then a study skills syllabus may be developed e.g. to write essays, reports, dissertations, etc. Skill based syllabuses are something of a half – way house between content or product syllabuses and method or process syllabus (Jordan, 1997:61, 62).

2.6.4.3.3. Method or Process syllabus

The focus is on ‘how’ rather than ‘what’. Breen suggested the process syllabus and approach based on tasks for learning. The key feature of this syllabus is the experiences of learning as the basis for designing the syllabus and the negotiation between facilitator and students. This type of syllabus focuses on some kind of tasks to be performed. After target tasks are analyzed, pedagogic tasks can be listed and selected after negotiation between students and facilitator. The purpose of the tasks is to develop the methods or processes involved with learning activities. The tasks and activities selected for learning are communicative events, problems, functions such as agreeing on the use of an agronomic machine, etc. (Jordan, 1997:62; Cariaga, 2008:34-36).
2.6.4.3.3.1. Process

The focus is the learner and learning processes and preferences. A process syllabus asks the questions: who does what with whom, on what subject-matter, with what resources, when, how and for what learning purposes? The negotiation process is part of the syllabus: among sets of options, the final selection is made by students e.g. of a task might be agreeing on causes of low crop productivity, organizing the information, followed by discussion of possible solutions (Jordan, 1997:62).

2.6.4.3.3.2. Procedural / Task based

The basis is a problem or task, with teaching/learning aimed at cognition and process. The task needs to be intellectually challenging in order to maintain students’ interest. It utilizes tasks and activities to encourage learners to use the language in order to achieve a purpose. The aim is to complete the task and to focus on meaning e.g. map reading, scientific experiments, etc. (Jordan, 1997:62, 63; Pineda & Espejo, 2009:39).

2.6.4.3.3.3. Learning centered / Negotiated

It focuses on the learner, with the learner responsible for making a number of decisions. It is based on how ‘learners learn to learn’ autonomously. Although the primary stress is on processes/methods, a choice of approaches is possible: a tailor made syllabus for an individual; adapting a syllabus in the light of perceived needs, self – directed, etc. A focus on the development of learner autonomy and independent learning skills will be particularly important in systems which can offer the learner only short – term courses (Jordan, 1997:63; Pineda & Espejo, 2009:39).
2.6.4.3.4. Constructing a syllabus

After the needs analysis, it is stated the objectives and competences of the course, then facilitators need to specify what will be included in the ESP course. They establish goals according to the principles of organization. The principles of organization used in the construction of the syllabus are: **Selection** (to select the most fundamental content according to needs analysis); **Focus** (to concentrate on the most important for learners); **Subdivision** and **Sequencing** (to subdivide and sequence by breaking down the subject into manageable units) (Cariaga, 2008:31).

Units are constructed considering tasks/activities or topics that can begin the unit, followed by notions, functions and forms the students will use and the skills needed. Thus, the syllabus can be designed and integrated into a multi syllabus (Cariaga, 2008:49).

2.6.4.4. Activities and strategies of learning

2.6.4.4.1. Learning activities

Activity is a general term that means action, performance, movement, mental process, physiological functions, etc. In the didactic field they refer to the exercise which designed and planned has the goal to achieve specific proposed competences on students (Gutiérrez, 2006:109).

The activities or tasks are the means for which students can appropriate and construct the knowledge around the facilitator’s course or unit objectives. The learning activities are all experiences that achieve to wake up the interest of students; therefore they achieve the desire of participation on the task for solving a problem (Gutiérrez, 2006:112; CEPIES, 2010:145).
One undebatable principle is to learn by doing. The activities are fundamental in order to optimize learning of conceptual, procedural and attitudinal contents. With them students can live, experiment facts and behaviors such as to think, to acquire knowledge, to develop social attitudes, etc. (Gutiérrez, 2006:109).

2.6.4.4.1.1. Activities in the contents

The activities into the common and basic content are: Activities in the conceptual contents (one activity of discovering have to begin with the problem presentation, observation, experimenting, interpretation data and results reflection), activities in the procedural content (they depend on level of education and area) and activities in the attitudinal contents (the attitudes guide the learning process, one positive attitude makes easy the learning) (Gutiérrez, 2006:111, 112).

2.6.4.4.1.2. Types of activities

The activities developed in the curriculum are the following:

a) Observation activities
They are the main and permanent activity of learners because by them they recognize the characteristics of objects. These activities need to be planned in order to see the species, social behavior of people, models used in the speech, etc. (Gutiérrez, 2006:113).

b) Intellectual activities
Activities that develop the logic capacity of reasoning, conceptualization and formulation of right judgment (Gutiérrez, 2006:113).
c) Expression activities
They make up the different behaviors of learners which are the result of the leaning process. E.g. it is observed on students the bodily, psychic, cultural, linguistic social, scientific, politic, etc expressions (Gutiérrez, 2006:113).

d) Manipulation activities
The manual activities have to be transverse for all knowledge areas into the curriculum. As manipulation activities it is known the following: experiments, construction and data gathering, productive work on workshops, etc. (Gutiérrez, 2006:113).

e) Activities of socialization
These activities are led mainly to the socialization of learners by group works with their classmates (Gutiérrez, 2006:113).

2.6.4.4.2. Learning strategies
Strategy derives of military field and it is understood as ‘the art to plan and direct big military movements’. In this sense, the strategy is to plan, arrange and direct the military operations in order to get the victory, being the steps of the strategy the techniques or tactics (Gutiérrez, 2006:115).

In education, strategy can be understood like ‘the art to plan and direct the process of learning and teaching’. The strategies are always conscious and intentional directed to a learning objective. It supposes that techniques and even the methods can be elements of a strategy (Gutiérrez, 2006:115).
2.6.4.2.1. Some learning strategies

a) Strategies to construct meaning
One principle of cognitive psychology is to utilize what we already know in order to interpret what we are learning. In this kind of strategies it will be mentioned the ‘SQA’ strategy and concept formation strategy.

“The ‘SQA’ strategy comprises ‘S’ that means ‘Saber’, it implies students have to identify the knowledge they have. ‘Q’ that means ‘Querer saber’, it identifies what the students want to know. Finally ‘A’ that means ‘Aprendido’, after students have read, listened and seen they identify what they have learnt” (Gutiérrez, 2006:123).

b) Expositive strategies
It is a constructivist strategy. The main resource is the didactic language, because it permits the oral presentation of a logically structured topic. These strategies have the following characteristics: good training in the topic to develop, to identify the fundamental, good organization of the presentation, suitable vocabulary according to the audience, clear and direct language style and suitable paralinguistic features (Gutiérrez, 2006:123).

c) Group work strategies
This kind of strategy can be applied after spontaneous formation or application of a sociometric test. The number can vary from two to six students, this number is based on the technique applied (Whispering technique, Phillips 66, Symposium, seminar, role playing, brainstorming, case study, etc.) (Gutiérrez, 2006:124-126).
2.6.4.5. Methodology, methods and approaches

2.6.4.5.1. Introduction

The method to use with an ESP course will depend on the needs students have and the ESP syllabus. Language awareness work is important to use a correct method or approach and to help students succeed in the English language. Agronomists do not expect English teachers to cultivate crops and industrialize them to solve the food production at worldwide level; they expect some understanding of the language used in the interaction, so they can use the language when they need it. It can be summarized in that the teacher includes the content to teach based on the area or fields issues (Cariaga, 2008:55).

The methodology is one of the main paradigms and pillar into the educative process, because it answers the question: How is the educative process; it means how to concrete, how to do real the education, how to guide, how to conduct and orientate the learning, etc. being the dynamic element in all the learning teaching process. The methodology is an instrument into the educative process, because it allows linking the students with the contents, activities and experiences in concrete and contextual situations in order to improve the quality of the education (Gutiérrez, 2006:116).

The methodology is the theory of the method. In other words, it is the study of the reasons which allow us to understand what a method is and what a method is not. The methodology studies the definition, construction and validation of methods. It is the group of techniques and procedures through which facilitators carry out the experiences of the curriculum doing it more lived for students and relating students with facilitators. One methodology is a group of strategies which are generated for facilitators; by them it is possible to modulate the pedagogical assistance to students in order to construct in the students their own knowledge (Gutiérrez, 2006:116).
2.6.4.5.2. Pedagogical method

It is the group of procedures that are used to organize and to conduct the educative work and to promote the learning with the goal to convert it more effective in accordance with the objectives. Characteristics relevant to pedagogical method are: it must adapt to the bio-psycho-social features of the student, it must fit to the subject matter nature, it must be of flexible application and it must be organized and sequential. The methods of teaching can be classified into passive and active methods. They can be applied according to the number of students and there is no best way, all techniques and methods are a response to a particular situation (CEPIES, 2010:145; Dudley-Evans, and St John, 1998:13).

a) Passive methods
In this kind of methods the pupil receives the knowledge. The protagonist is the facilitator. It allows to memorize and to repeat. The learning is given from simple to complex, from outside to inside. The main strategy used is the teaching. We have the following passive methods: dictation, conferences or oral presentations, observation, magisterial class and demonstration (CEPIES, 2010:146; Dudley-Evans, and St John, 1998:190).

b) Active methods
These methods have the following objectives: to develop the higher psychic functions, to change the study into necessities, to form cognitive interest, to develop abilities for independent study, to improve the knowledge assimilation, to solve problematic situations. Here, the student learns by doing, he/she is autonomous, he/she searches new experiences, and the learner links the knowledge with nature and life. The learning is developed from inside to outside, from complex to simple. We can mention the following active methods: project methods, discussion, independent work with the text book, role playing, problematic teaching, activated conferences, situation methods,

2.6.4.5.3. Approaches

2.6.4.5.3.1. Communicative approach

It is based on functional use (intentions) interaction between learners and facilitators, exchanging information in both sides. It has proved to be more motivating and realistic in language practice. Learners have more freedom to create meaning and language by themselves. The facilitator presents the language items and gives the rules briefly and only if necessary, facilitator has students to practice the language in a drill or exercise to reinforce some pattern of model. Students then may use similar language in contextualized and new situations (Cariaga, 2008:56).

2.6.4.5.3.2. Task-based approach

There is no one version of task-based language teaching. There is a common beginning of a task with a problem that has to be solved. Instead of organizing language instruction in terms of pre-selected grammatical structures or functions aims, learning is specified in problem-solving terms. One of the characteristics of this approach is that it can be a learner-centered approach (Cariaga, 2008:57-60).

2.6.4.5.4. Task

The word task can be ambivalent; it could mean method or content. It is defined as a piece of work undertaken for oneself or for others, freely or for some reward e.g. filling out a form, doing a summary, to write a report of crop production, etc. So it means the many things people do in everyday life, at work, at leisure or at home. A task is an
activity or action carried out as the result of processing or understanding language; they may or may not involve the production of language. The students use the language, as they are engaged in performing the task, and thus, achieve the internal system of rules to achieve their grammar (Cariaga, 2008:57-60).

2.6.4.5.4.1. Type of tasks

a) The real – world tasks
It leads students to approximate in class the sorts of behaviors required of them beyond the classroom, in the world. For instance, to listen the instruction of the instrument functioning in order to do a soil analysis. In some classes all tasks are specified in real – world terms. Learners practice daily life activities. But as facilitator it is important to grade and adapt the tasks to the students (Cariaga, 2008:62).

b) The pedagogic tasks
It requires students to do things which are extremely unlikely they would be called upon to do outside the classroom. These tasks stimulate the internal processes of acquisition and they are selected according to some theory or model of second language acquisition. E.g. students may read a text related with the irrigation of fields then the students do a summary, mental map, etc. strategies which they would only learn in the class (Cariaga, 2008:62).

2.6.4.5.4.2. Task components

For specification of task there are four components: the input, the roles, settings and actions. Input is the data presented to learners in order to work on (oral or written language). The roles specify the relationships between participants in a task. Setting refers to the classroom and out – of – class arrangements entailed in the task. And finally
actions are the procedures and subtasks to be performed by students, what the facilitator and students will be doing during the lesson (Cariaga, 2008:62, 63).

2.6.4.6. Materials

Educational materials are the group of means which are used by facilitators for teaching and learning of students, who have to acquire knowledge through the five senses. Materials in the current school not only have to illustrate but they have to persuade for research, for discovering, for working and for contribution. In this way the student can represent actively and scientifically their knowledge; students have the opportunity to enrich their experiences being more close to the reality. The educative materials are tools to the service of learner participation (Gutiérrez, 2006:127).

2.6.4.6.1. Introduction

The learning means and materials are mediators in the knowledge construction; they have a mediator function between the reality and knowledge of that reality. According to that reality and the nature of learning it would be considered the learning means and materials. Materials play an important role in the education, since they are utilized as a source of language, because in Bolivia in general facilitators are non native speakers, so the only contact with the real language is by the textbook, papers, magazines, books, lectures, etc. Materials present the real language and interesting contents for students. Also materials are used for supporting learners or reinforcing their learning (Cariaga, 2008:67; Gutiérrez, 2006:127).

2.6.4.6.2. Principles of materials elaboration

For constructing materials they need to have five principles: pertinence (they have to be correlated with the objectives, competences, method and level of student knowledge),
Logic (they have to be linked with the knowledge that students need to learn and presented in a logical way), simplicity (simple design and language), key elements (to take into account the most relevant) and impact (It refers to presentation patterns and style of the design). ESP professors have to construct their own materials and to use audio, video, overhead transparencies, computers and other real objects. (CEPIES, 2010:180; Dudley-Evans and St John, 1998:170).

In writing materials it is important to consider the main following principles:

a) Materials provide a stimulus to learning. Good materials do not teach, but they encourage learners to learn.

b) Materials help to organize the learning – teaching process; materials should provide a clear and coherent unit structure which will guide teacher and learner through various activities.

c) The material reflects the nature of the learning task (Hutchinson and Waters, 1993 in Mamani, 2006:110,112).

2.6.4.6.3. **Purpose and importance of materials**

There are four significant reasons for using materials:

a) As a source of language

b) As a learning support

c) For motivation and stimulation

d) For reference

As a source of language is used in a situation e.g. scientific articles related for agronomists. As a learning support, materials need to be reliable. Materials need to stimulate and motivate students by challenging them but at the same time they have to

The materials are important for the following reasons: They enrich sensory experience, easy acquisition and learning fixation, they motivate the learning, it is stimulated the imagination and abstraction capacity, they economize the time, it stimulates the activities in students and they enrich the vocabulary (Gutiérrez, 2006:129).

2.6.4.6.4. Classification of materials for learning

2.6.4.6.4.1. Learning materials

They are all the means or resources which are utilized by facilitators and learners in the learning – teaching process. Materials are the physical forms to present the stimulus to them. They are subdivided into three elements (Gutiérrez, 2006:128-129).

a) Didactic materials

Didactic materials are both objects or representations like figures, charts, posters, newspapers, diagrams, schemes, conceptual maps, etc. which are used for student to construct knowledge. Their use is dependent on the achievement of specific competences (Gutiérrez, 2006:129).

b) Audio-visual materials

They comprise the radio, television, video, slides, transparencies, cinema, etc. (Gutiérrez, 2006:129).

c) Bibliographical materials

They are the learning modules such as text books, consulting books, journals, pamphlets, etc. In all these materials, the variety is essential, because the ESP class can become

2.6.4.6.5. Material selection

How do facilitators choose the book they will utilize? For choosing materials is important to consider:

a) Motivation
b) Objectives (to suit the objectives and competences set)
c) Attractiveness (it involves pictures, color, answers to questions, etc.)
d) Support (To support students with materials)
e) Self-study tasks (tasks that suit the objectives and competences and help students on their own)
(Cariaga, 2008:68, 69).

2.6.4.6.6. The course book

In crude terms, the designer wants to know a pair of things:

a) What sort of activities are probable to promote (or conversely to hinder) effective performance and learning?
b) How might such activities be constrained or elaborated and organized in terms of a publishable course?

Task based approaches have been studied and it has three main implications for materials design. i) interactions between learners can prove as good as, or superior to, interactions between learners and native speakers, when it comes to preserving certain important features of native speakers conversations; ii) that ‘jigsaw’ or ‘two-way oral
tasks where each participant does not have access to all the information, produce different types of conversation from tasks where all the information is pooled and iii) that since we now have some idea how the ability to summarize accurately develops and roughly how long it takes.

Answering the question on how tasks and activities might profitably be controlled and structured, the designer can make use of a reasonably large body of work on syllabus design, most of which approaches the problem from a global viewpoint: Much less help, is available when it comes to detailed decisions about how to construct, or modify, individual course units (Keith, 1996:137).

**a) Design – oriented evaluation questions**

Design decisions may well be interrelated and there are a number of detailed design-oriented evaluation questions, such as:

- What sort of shape does this unit have?
- What is the rationale and justification for this shape?
- Why do these exercises take the form that they do?
- Why do they come at precisely this point and in this sequence?
- Might other possible design solutions be preferable?

(Keith, 1996:138, 139).

**b) Traditional unit structure**

From the late 1960s or so, a large number of major courses have adopted a sort of four-phase structure. In this design, the course unit (it is an arbitrary structural unit which simply denotes a major division of a course) is considered identical to a learning unit (it is a set of tasks felt by the designer to be necessary for the teaching of an item on a syllabus). The general design is:
i) Presentation a) of language to be learned
   b) of language description

ii) Controlled exploitation

iii) Free exploitation (generalizing to areas other than those in the presentation)

iv) Synthesis (pulling disparate strands together and sometimes creating an ‘end-product’) (Keith, 1996:139).

c) The single presentation solution

Teaching material intended to last one academic year is frequently divided into about ten to twenty units. More important perhaps, such a division also implies that, unless it is intended as add-in material, each unit will have to contain a reasonable amount of new language. If a single presentation solution is adopted, then all of this reasonable amount must be input at the same point in the unit. It can encourage the designer to restrict the focus of the unit to one set of people solving one single problem via one single text (Keith, 1996:140).

d) The multiple presentation solution

One way round the difficulties associated with single presentation formats is to opt for short amounts of presentation material spread throughout the unit. The main advantage for doing this are: information density can be controlled with great precision and content, style and length of each chunk of text can be matched to expected characteristics of the target learners. For designers is much easier to edit short passages than long ones, which are likely to involve far more complex patterns of cohesion and coherence. The sequencing will depend on the nature and strength of the desired relationship (Keith, 1996:143, 144).
2.6.4.6.7. **Materials evaluation**

In order to evaluate materials it is important to analyze who’s going to use the material; it is specified through the needs analysis (interests, background, ages, etc.). And the materials relevance to the contents, objectives and competences has to be taken into account as well (Cariaga, 2008:69, 70).

2.6.4.6.8. **Materials development**

If there are not suitable books or the books there are need implementation, the facilitator has to design and produce his/her materials. Bolivian universities do not have adequate materials according to faculties and departments. To produce materials for students specific needs, facilitators should: identify the teacher and student have, write a project with a colleague, consider a deadline, edit the material, pilot with students, review and present it in a didactic way (Cariaga, 2008:71).

According to Hutchinson and Waters (1989) in Cariaga (2008) the materials follow a model based on input (it provides the language model, new focused items, etc.), the content (non linguistic content is exploited), the language (knowledge of the language) and tasks.

2.6.4.7. **Evaluation**

In terms of educative system, the evaluation can be done in each of the elements forming it: facilitators, learners, curricular design, educative projects, physical environment, management, etc. and also in the interactions among them. The evaluation is a process or a group of processes in order to obtain information of the learning’s results and products (Gutiérrez, 2006:132-134; CEPIES, 2009:1).
The evaluation is a value judgment, it is pedagogical, contextual and interactive; it is conceived as an individual help in order to achieve the educative goals. It is permanent and systematic valuation of educative process developed both inside and outside of the classroom. It is mainly formative evaluation, because it helps learners through permanent adjustment and improvement of learning, it detects failures and success of both facilitators and students. Assessment is a process of measuring and one formal method of measuring is to test (Gutiérrez, 2006:132-134; Dudley-Evans and St John, 1998:210).

2.6.4.7.1. Introduction

The assessment is done to observe the learners’ language learning development. In general assessing is not testing and it refers to the general process of keeping track of the students’ progress. The whole education process of learning and teaching is considered when assessing learners and learning. Assessment keeps students active as participants in doing tasks and assessing themselves seeing their own effort and progress (Cariaga, 2008:77).

The evaluation is an integral part of good teaching; it has to be considered a necessary activity in the learning-teaching process, because it gives facilitator a mechanism of auto control that will permit him/her the regulation and knowledge of factors and problems which promote or disturb the learning-teaching process (Gutiérrez, 2006:133).

2.6.4.7.2. Evaluation of learning

Learning evaluation is a systematic valuation and interpretation of advances, achievements and difficulties produced in the learners’ learning. Its purpose is to guide and to improve the efficiency of learners, facilitator work, curriculum and context in order to give assistance and to ensure the integral education of students. In operative
terms it implies a communicative interaction process among students, facilitators and family parents in order to express a pedagogical judgment about advances and difficulties of learners, to strengthen their self-confidence, to stimulate their learning. It is not to measure but to give value. The evaluation of learning is to look at course objectives, materials and test specifications. (CEPIES, 2009:3; Dudley-Evans and St John, 1998:210).

This kind of evaluation is located on educative evaluation, specifically on learner evaluation. Therefore competences learning evaluation is a permanent process of information and reflection. It includes information collection and selection, learning interpretation and valuation and finally decisions taking. To evaluate is not only knowledge evaluation but abilities and attitudes evaluation, to know the characteristics of the process and not only the results (figure 5) (Gutiérrez, 2006:134).

![Learning evaluation diagram](image)

**Figure 5.** Learning evaluation (Gutiérrez, 2006:137-141)
2.6.4.7.3. **Evaluation of learning contents or competences**

The learning curricular content requires of different strategies and evaluation instruments, because inside learning process it is intervened conceptual, procedural and attitudinal curricular contents. So, what to evaluate has to be in coherence with what to teach. In a competences curriculum, the evaluation is focused on the competence and explicitly on capacities. This curriculum takes us to see the cultural wisdom, I mean; conceptual, procedural and attitudinal contents; because they accomplish a fundamental role into the development of competences. The curricular contents are grouped into three blocks: conceptual, procedural and attitudinal (CEPIES, 2009:17; Gutiérrez, 2006:137).

**a) Learning evaluation of conceptual contents**

Conceptual contents refer to the field of knowledge: data, facts, events, information, concepts, laws, etc. They are the group of knowledge that is object for evaluation. This kind of evaluation is directed to evaluate ‘to know’ of students with the following activities: definition of concepts, laws, principles; recognition of concept definition; explanation, descriptions, argument; cases, experiences; problems’ solution. So it is characterized by: it should pay attention to the simple reproduction of information, evaluation of quantitative style (it gives a quantitative value to the right answers) (CEPIES, 2009:18, 19; Gutiérrez, 2006:147).

The evaluation of conceptual contents is applied to know if students are capable of remembering facts, data, names, date, etc. in an oral or written way. The instrument used to value will be by oral questions in individual way; but if they are a lot a written examination allow collecting information. There are other instruments for collecting information such as question essay, summaries elaboration, problems solutions, etc. (CEPIES, 2009:18, 19; Gutiérrez, 2006:147).
b) Learning evaluation of procedural contents

Evaluation of procedural contents is focused on the processes of an operations group that student do in order to obtain a specific product of learning. They are the abilities and psychomotor skills; procedures, skills, techniques and strategies used on different situations and they constitute ‘the knowledge to do’, they are ordered actions directed to the goals attainment. The most important is that students use and apply the procedures in specific situations. For instance we can mention: the oral process reading, use of laboratory instruments, application of methods in laboratory, etc. (CEPIES, 2009:19, 20; Gutiérrez, 2006:148).

It implies ‘to do’ and the knowledge about the power of it. The functionality of procedures in different activities carried out on learning situation such as: recognition of actions, commands and conditions; to use and apply processes; generalization; selection of right procedures, good command procedures. It is avoided the automation and it is promoted the right procedure selection according to the activity type; so the best way to evaluate is through problematic situations where students might apply the acquired capacity (CEPIES, 2009:19, 20; Gutiérrez, 2006:148).

c) Learning evaluation of attitudinal contents

They refer to the values, norms and attitudes that influence powerfully on students conduct and more specifically on their learning attitudes to collaboration, the work in each knowledge field, interest of a specific activity, value formation with regard to cultural contents, etc. which are important factors in education. The goal is to recover the cognitive, fond and behavioral component behind each attitude. It evaluates ‘to be and to live together’ including: attitude knowledge, valuation of their necessities, to know the scientific, social and cultural reasons from which is established an attitude. In order to evaluate the attitudes and values we should use suitable techniques and instruments: direct observation, observation scales, class diaries, questionnaires, etc. (CEPIES, 2009:20-21; Gutiérrez, 2006:149).
2.6.4.7.4. Types of evaluation

It can be evaluated in three moments: at the beginning, during and at the end of the learning-teaching process, I mean, in all educative process (Gutiérrez, 2006:137).

2.6.4.7.4.1. Diagnostic or initial evaluation

It is carried out previously to the development of a educative process whichever is it in order to know the group of expectative, interests, preferences, experiences and knowledge background of students in the field of interest. They are the point of departure for the design of pedagogical process and to know which are the most deficient aspects to put more attention and emphasis to them. These tests specify the learners’ state of knowledge, before the ESP course begins (CEPIES, 2009:22; Gutiérrez, 2006:138; Cariaga, 2008:79).

2.6.4.7.4.2. Formative evaluation

The formative evaluation is carried out during all learning-teaching process. The information obtained during this process will be a guide, no definitive; it will reveal the advances, difficulties, errors of all learning process. It will allow us to readjust the planning and strategies used on learning-teaching. The purpose of this kind of evaluation is to regulate the learning-teaching process, adapting and adjusting the pedagogical conditions (strategies, activities, etc.) to the students’ requirements and to verify the evolution of learning necessities. The teacher uses information gained from evaluation about the students’ progress on the basis for further classroom work (CEPIES, 2009:22; Gutiérrez, 2006:140; Cariaga, 2008:79, 80).
2.6.4.7.4.3. **Summative evaluation**

This evaluation verifies if the educative intentions have been achieved. This evaluation gives information which derives on important conclusions about the success and effectiveness of educative experience. It is carried out at the end of the learning process. It searches to confirm the results and tendencies of formative evaluation. The results have to be checked with diagnostic evaluation in order to determine the significance level of detected achievements of each student. It measures the students’ achievement, so they are used to check the quality of institutions (CEPIES, 2009:22; Gutiérrez, 2006:141; Cariaga, 2008:79, 80).

2.6.4.7.5. **Techniques and instruments**

They are specific procedures and means which allow collecting and registering the types and grades of learning. These instruments have to be systematic, flexible and dynamic for evaluating the students’ abilities and competences (Gutiérrez, 2006:152).

2.6.4.7.5.1. **Informal evaluation techniques**

They are used inside learning-teaching episode with a short duration. Also they frequently are not presented to students as evaluative acts, so students do not know that they are evaluated (Gutiérrez, 2006:152-155).

  a) **Observation of activities**

The observation of both what they say and what they do when they learn is an indispensable activity for formative evaluation. Through observation is possible to evaluate conceptual, procedural and attitudinal contents. It is possible to systematize the observation by: comparison lists (to check the presence or absence of specific behaviors or competences ) appreciation grade (instrument that include a group of characteristics
or qualities to evaluate with the grade of them), anecdotic registration (it is the registration of a life episode of one student in action), systematic observation (it is a programming instrument where is defined the time, space and indicators to be focused in the observation) and classroom diaries (it collects data about daily life into the classroom and school) (Gutiérrez, 2006:152).

b) Exploration through questions
The facilitators question students with the goal to estimate the level of comprehension upon learning, with these questions, facilitators may help them (Gutiérrez, 2006:155).

2.6.4.7.5.2. Semi-formal evaluation techniques

It is known that they require more time to prepare them; also they demand more time to value them and it requires students more lasting answers, as a consequence they are seen for students more as evaluation activities. We can mention some variation of them: works and exercises that students carry out inside the classroom, tasks and works that students carry out outside the classroom and evaluation of ‘portafolios’ (collection of productions or works of essays, text analysis, written compositions, solved mathematical problems, drawings, etc.) (Gutiérrez, 2006:155-158).

2.6.4.7.5.3. Formal evaluation techniques

They demand a process of planning and elaboration being applied on situations which requires more control grades. So, they are perceived for students as true evaluation situations. We can mention the following:

a) Objective assessment (written evaluation such as: double alternative, multiple alternatives, matching assessments, complement, assessments of essays type or free answers, short answers, questionnaires, etc.)
b) Oral examination

c) Problem solutions

d) Practical or execution assessments (design of a real activity such as use of machines, laboratory work, models elaboration, etc.)

e) Interviews (It collects information directly from students, parents, facilitators, principals, etc. in terms of attitudes, skills, verbal comprehension, interests, habits, etc. in order to give them the suitable assistance).


All theories were the base for the development of the research. The theory of ESP and Course design were the main elements in order to develop the preliminary course design for the Agronomy Department considering the recommendation done by national and international experts on ESP. Also these theories are important for other researches related to ESP which is so developed in other countries, but in Bolivia is in its first steps, for this reason the linguists have to work on ESP Course design for all departments of public and private universities to increase the quality and globalization of our professionals.
CHAPTER III: METHOD

3.1. Introduction

In this part it is essential to mention the method, the research scope, the research design, instruments of data collection, population and sample, means and procedures that were used in the present research in order to embrace the totality of the problem and to ensure the accomplishment of the objectives (Vega de la Torre, 2010:20).

3.2. Method of research

In order to achieve the objectives, the quantitative approach is used. According to Hernández et al (2006:755) the combination is known as a mixed research. It uses both qualitative and quantitative approach for answering all the research questions. More specifically the type of mixed research applied in this work is the design with dominant approach; where the quantitative approach is the most dominant and some of the elements of qualitative approach are used like the open interviews. Because the quantitative data which is larger than qualitative data, is described through the Quantitative approach. It is based on triangulation methods.

3.3. Type of research or the research scope

To face this research, the descriptive research was used. This research was aimed at specifications of properties, characteristics, and profiles of individual, groups, objects or communities for being analyzed. It described tendencies of a group or population. In this research I described the attitudes towards the English language of students and professors of the Agronomy Department and described the needs’ analysis and objectives of both students and professors.
3.4. Type of research design

In the present research the non – experimental design was used. In a non – experimental research we observed the phenomena in their natural context in order to analyze them. In other words, non – experimental research are studies which are done without a deliberated manipulation of variables. That is, the attitudes, needs and objectives of professors and students of the Agronomy Department were described (Hernández et al 2006:205, 206).

I took into account the transversal studies (Hernández et al, 2006:208, 209). They collect data in just one moment, in a specific time. I described attitudes, needs and objectives of both students and professors in the Agronomy Department on the first semester of 2011 by the application of questionnaires and interviews.

The first thing I did was to observe the rooms, the offices, the library of the Agronomy Department, etc. to get a general view of the Department. Then I spoke with the Director of Agronomy for applying the questionnaires to students and professors of Agronomy, at the beginning it was so difficult to speak with him because he was so busy in other things, but finally I get the permission of him for doing the questionnaires and to ask for Agronomy syllabus and quantitative data of students and professors of the Agronomy department (Appendices III, IV and V).

For the qualitative paradigm it is essential to be immersed in the field to identify the data collection, who (sample), when, etc. (Hernández et al, 2006:524-526). The immersion in the context sometimes implies to live or to be part of the context. For this reason, I was in the Agronomy department during the research doing open interviews (Appendix VI) and collection of documents like Agronomy “pensum” (Appendix V) and the professional profile of the Agronomist.
In qualitative terms, I extended the ethnographic design. This kind of research sought to describe and to analyze ideas, beliefs, meanings, knowledge and practices of groups, cultures and communities. The ethnography implies a deep description and interpretation of a group or social system; for this reason I selected the Ethnographic design, because the research is doing a description and analysis of a human group like students and professors of Agronomy Department (Hernández et al 2006:697).

Through the ethnographic design the social group was the group of students and the professors of the Agronomy Department, in this observation I did the open interviews to key informants in a first semester of 2011 (Appendix VI) they were done in the natural environment of students and professors, that is, in the classrooms, library, etc.; specifically it was done a transversal ethnography where the group of students and professors were studied in the period mentioned before (semester I/2011).

3.5. Population

According to the objective and mission of higher education in Bolivia, all students and professors at higher education have general common characteristics; so they were the universe. They had the task to develop the science and technology in order to leave the name of ‘developing country’. The populations taken for the study were the students and professors of the Agronomy department (“Universidad Mayor de San Andrés”) at the beginning of the first semester of 2011.

3.5.1. Students

As I said before, all tertiary students were the population, but I considered a case study in terms of the Agronomy department. The Agronomy department of ‘Universidad Mayor de San Andrés’ usually has the following quantity of students, table 1 (see appendix 3 for complete data):
Table 1. Statistical data of students

<table>
<thead>
<tr>
<th>Description</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of new registered students I/2010</td>
<td>69</td>
</tr>
<tr>
<td>Number of new registered students II/2010</td>
<td>122</td>
</tr>
<tr>
<td>Number of students enrollment in the department I/2010</td>
<td>1027</td>
</tr>
<tr>
<td>Number of students enrollment in the department II/2010</td>
<td>1059</td>
</tr>
<tr>
<td>Number of undergraduate students (not graduates) in semester I/2010</td>
<td>90</td>
</tr>
<tr>
<td>Number of undergraduate students (not graduates) in semester II/2010</td>
<td>90</td>
</tr>
</tbody>
</table>

(Kardex, 2011).

I will consider the number of students’ enrollment in the Agronomy department in the period of I/2010 as the total student population, because they are still studying in the department. It means a total population of students equals to 1059 students (this number includes students of all semesters from first to tenth semester).

3.5.2. Professors

The population was the professors of the Agronomy department of “Universidad Mayor de San Andres”. The total quantity of them was 69 professors in the academic year of 2011 (see appendix 4 for complete data).

3.6. Sample

In order to take out the sample size for the quantitative point of view, it is required to take into account the following aspects:

a) Population size (determined by the problem’s scope)

b) Distribution of the population (determined by the problem’s scope)

c) Desired confidence level (specified by researcher)
d) Sampling error or level of precision (specified by researcher)
(Vega de la Torre, 2010:26).

In the qualitative sampling it is not important to consider the sample size, so I will take into account a non-probabilistic sampling using the snowball sampling and directed sampling for undergraduate and professionals of Agronomy department (Hernández et al, 2006:567).

3.6.1. Students sampling

When a probabilistic sampling is done, one has to ask if a population is N: What are the minimal unities (people, organizations, articles, etc.) in order to form a sample (n) which ensures a specific level of standard error? For answering that question I will use the following formula:

\[ n' = \frac{s^2}{V^2} \]

Where:
\[ n' = \text{Provisional size of the sample} \]
\[ s^2 = \text{Sample variance} \]
\[ V^2 = \text{Population variance} \]

Sample variance is calculated through:

\[ s^2 = p(1 - p) \]

Sample population is calculated by:

\[ V^2 = \text{se}^2 \]

Where:
\[ p = \text{Estimated percentage of the sample, occurrence probability of the sample (0.9)} \]
\[ \text{se} = \text{Standard error} \]
Replacing the values, we have:

\[ s^2 = 0.9 (1 - 0.9) = 0.09 \]

\[ n' = \frac{0.09}{0.02^2} \]

\[ n' = 225 \]

With the value of \( n' \) is calculated the sample size (n) by the following formula:

\[ n = \frac{n'}{1 + \left(\frac{n}{N}\right)} \]

Where:

- \( n \) = Sample size
- \( n' \) = Sample size without adjusting
- \( N \) = Population size

Replacing the values we have:

\[ n = \frac{225}{1 + \left(\frac{225}{1059}\right)} \]

\[ n = 186 \text{ students} \]

It means that 186 students have to be the sample of the population in order to generalize the data to all population, in this case to all students of Agronomy department. For this reason, 188 students will answer the questionnaire.

I will select them through cluster sampling. Cluster sampling is a random sample which involves surveying whole clusters of the population selected through a defined random sampling strategy. Clusters might be schools or in this case semesters from first to tenth. These clusters are sampled so that individuals within them can be surveyed/interviewed (O’Leary, 2004:108).
Using a calculator ‘Casio’ fx-82MS I have used the cluster sampling. In total I had tenth semesters, from first to tenth semester. Using the formula:

\[ 10 \text{ Ran#} = \]

I have randomly selected students of first semester, sixth semester, forth semester, fifth semester and ninth semester. This process was done up to complete sample of students. All students who were the sample of the research were regular students of Agronomy department in the first semester of 2011.

For the sampling of students from the qualitative point of view was used a non-probabilistic sampling using the snowball sampling and directed sampling for undergraduate and professionals of Agronomy department. (Hernández et al, 2006:568).

Through these snowballs and directed sampling in qualitative terms I have done three open interviews with regular students applying the ethnography as a design, studying the main characteristics of the students of Agronomy in terms of attitudes, needs and objectives for the English language.

### 3.6.2. Professors sampling

Doing the same calculation process for students sampling, the results are the following:

\[ n' = \frac{0.09}{0.015^2} \]

\[ n' = 400 \]

\[ n = \frac{400}{1 + \left(\frac{400}{69}\right)} \]

\[ n = 59 \text{ professors} \]
The research has to collect information of 59 Agronomy professors. The reason to collect this quantity is to generalize the results to all Agronomy professors, because quantitative paradigm has the objective to describe the population through the sample. Because of the difficulty to apply the questionnaire to almost all Agronomy professors I will apply the ten percent of the population. In market studies commonly is used 10% of total population. Many authors consider that a sample size should be a representative quantity of the population, covering at least 10 % of the population (Vega de la Torre, 2010:102; Mamani, 2006:45).

Considering the 10 % of the population the sample size would be 7 Agronomy professors:

\[ 69 \text{ professors} \times 0.10 = 6.9 \text{ professors} \]
\[ 6.9 \text{ professors} = 7 \text{ professors} \]

But for having more data I have considered 10 Agronomy professors. They will be selected by the same process of students’ selection that was described before.

In terms of qualitative sampling I have considered the snowball and directed sampling, by which I applied three open interviews with professors through ethnography, studying the main characteristics of professors of Agronomy in terms of attitudes, needs and objectives for the English language.

3.7. Instruments of data collection

To collect data in the research was applied both paradigms of research. For the quantitative paradigm was used the descriptive design making a description of attitudes, needs and objectives of students and professors through the application of structured questionnaires.
In the qualitative paradigm was applied the ethnographic design. For this design was applied the open interviews and observation of the social group (students and professors of the Agronomy department). These three instruments for data collection are described in the following paragraphs.

3.7.1. Questionnaires

In general the questionnaires had the three requirements of a data collection instrument. It has objectivity (no bias of researcher), reliability (they can be applied to the same person getting the same results) and validity (They are suitable with the objectives of the research).

In terms of reliability, the questionnaire was analyzed through the coefficients; the reliability coefficient used was the alpha (α) which was calculated in the SPSS software version 11.5. This coefficient resulted 0.7171. It is an indicator that the instrument is reliable.

The validity is referred like the level in which an instrument measures the variable that really pretends to measure. The questionnaire has the face validity because it was designed considering the recommendations and questionnaires done by Cariaga (2008); Wozniak (2010), Jordan (1997), and other Linguistics thesis related to ESP.

Besides the proofs of validity and reliability (Hernández et al, 2006:438-443), the factors that can increase the error were avoided. The questionnaire was contextualized to our reality; it used an understandable language; the questionnaire was anonymous; it was applied to students and professors in their classrooms after their classes with the permission of their professors, it indicates that all the interviewees were comfortable with all the conditions; the same questionnaire was applied to all students and professors, so they were standardized. The copies were clear.
Questionnaires were applied to students (people who are still taking courses or subjects) and professors. They were applied in Spanish in both cases. In order to have a complete study of Agronomy department I applied some questionnaires to undergraduate (Agronomy students who already had finished the career but did not get a diploma) using the snowball and directed sampling.

The questionnaires were subdivided into three parts. The first one was labeled as General data. The second one was intended to know the attitude of both students and professors. The final part had the objective to know their needs. You can find the complete questionnaire on appendix II.

3.7.2. Interviews

The quantitative approach has been covered through questionnaires to professors and students. For the qualitative approach I have applied the open interviews with students and professors of Agronomy department and also including professionals of the Agronomy area.

I have applied an open interview considering the needs and attitudes to the English language. The people we interviewed were undergraduate and professionals of Agronomy department and from other departments. In qualitative data is not essential the quantity of interviewed people. Therefore, I have applied six open interviews to professors and students of the Agronomy Department (Appendix VI).

The main characteristic of one open interview is the informality; it is realized through an informal conversation between the interviewee and interviewer where there is a friendly atmosphere. I applied the open interviews to professionals and students, I spoke with them about something general, then I directed the conversation through the English language to create an atmosphere of familiarity, I did not write to avoid the
interruptions, just I listened, and when the interview finished I wrote the main parts related to the research.

3.7.3. Observation and collection of documents

Another important instrument used by the qualitative paradigm, especially for the ethnographic design is the observation and collection of documents. With it I have obtained important data like Agronomy Pensum, professional profile and data of students and professors of the Agronomy Department.

3.8. Statistical method

Statistics were used to analyze quantitative data, because the research is a descriptive research, therefore in order to describe the group of students and professors of the Agronomy Department, it is important to use the descriptive methods of statistics like the frequency table, central tendency (mean) and variability (standard deviation) of data (Hernández et al, 2006:407).

3.8.1. Frequency Table

It is a group of ordered punctuations in its respective categories. This table was applied in quantitative data through questionnaires to professors and students in the Agronomy Department. They are useful to describe the variables; they are used in the Chapter IV. It is calculated through the formula:

\[ h_i = \frac{n_i}{\text{Total}} \times 100\% \]

\( h_i \): Relative frequency  
\( n_i \): Absolute frequency  
(Hernández et al, 2006:419).
3.8.2. Central tendency

One of the most basic questions you can ask of your data centers on the ‘average’ or central tendency. In statistics, there are three ways to measure central tendency: mode, median and mean. In this work was used the average; I have used this statistic on quantitative data, more specifically on Likert scale; they are used in the Chapter IV (O’Leary, 2004:425).

3.8.3. Dispersion/variability

While measures of central tendency are a standard and highly useful form of data description and simplification, they need to be complimented with information on response variability. The most common statistics are variance, standard deviation, etc. I used the standard deviation on data obtained through Likert scale and for quantitative data; which are shown in Chapter IV (O’Leary, 2004:190).
CHAPTER IV: RESULTS AND ANALYSIS

4.1. Frequency analysis

Wozniak (2010:244) recommends to know the characteristics, attitudes and Language Needs Analysis (LNA) of students, undergraduate and Agronomy professors is vital for an ESP course design: The use of systematic means to define the specific sets of skills, texts, linguistic forms and communicative practices that a particular group of learners must acquire is central to ESP, informing its curricula, materials and underlining its pragmatic engagement with occupational, academic and professional realities. And based on them we got:

4.1.1. Students

4.1.1.1. General data

**Figure 6.** Sex of the regular students

**Figure 7.** Identification of Social class
Agronomy had an equal population of men and women (49% for each one). Many of them were identified with the middle social class reaching a value of 80%; the working class was about 12%. Almost all of them were single (90%). And more than the half lived in La Paz city; coming from “El Alto” city about 39% of the students.

Students generally have the necessary quantity of money, because when one professor asks for money they told “there is no money”, so they manage their money for their bus tickets and for their photocopies; every day they have to copy something, so for many of them will be difficult to pay for English courses.
4.1.1.2. Attitude

Figure 10. First language (L1)

Almost all of them have the Spanish as a mother tongue. But some of them had the ‘Aymara’ and ‘Quechua’ as a mother tongue (6 students of ten). With the observation was inferred that some students come from the countryside to study Agronomy, it was even observed students with “pollera” who want to be professionals in the future.
### Table 2. Knowledge of other languages

<table>
<thead>
<tr>
<th>Known languages</th>
<th>hi(%)</th>
</tr>
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<td>Intermediate</td>
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<td>Quechua</td>
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<tr>
<td>Advanced</td>
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<td></td>
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<td>Intermediate</td>
<td>0.00</td>
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<td>Advanced</td>
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<tr>
<td>Intermediate</td>
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</tr>
<tr>
<td>Advanced</td>
<td>0.00</td>
</tr>
<tr>
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<td></td>
</tr>
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</tr>
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<td>Intermediate</td>
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</tr>
<tr>
<td>Advanced</td>
<td>0.00</td>
</tr>
<tr>
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<td></td>
</tr>
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<td>Basic</td>
<td>1.73</td>
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<td>Intermediate</td>
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<tr>
<td>Advanced</td>
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<td>Advanced</td>
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</tr>
<tr>
<td>Total</td>
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</tr>
</tbody>
</table>
20% of students had basic knowledge of English language; nobody had an advanced knowledge of English. 28% of them had basic knowledge of Aymara, 24% of students did not answer the question. It means a lack of knowledge in English language and many of them are monolingual, because they did not have needs of English, as you can read in the following sentence of the interview 4 “At the moment not yet, because all the bibliography is in Spanish, but I have heard that we will need it for searching up-to-date information for doing our thesis”.

**Figure 11.** Most important language at present

For students the most important language is English, because it is a need for many of them, for instance one student in an open interview said “…I want to continue with my M.Sc. and Ph.D. degree through scholarships…” In this point with observation I saw some ads offering scholarship for M.Sc. and Ph.D. degree to other countries, where the main requirement was to speak English.

**Figure 12.** Preferred language as L1 in students’ descendants
Almost all students had as a mother tongue Spanish (L1) with a value of 94%. Students possess knowledge of different languages; 20% and 7% of them reached a basic and intermediate knowledge of English respectively. It ensures the low English level of Agronomy students, so it will be suggested one semester of Foundation course in order to give the basic tools in English language.

‘Aymara’ language got a high frequency, 28% had basic knowledge of that language. Possibly, it is owned to the near contact with native language and new policies in the government. I can infer that nearly a quarter of the students are monolingual because 24.24% did not answer having knowledge about other languages, it means that they know nothing about other languages. If we compare the results of mother tongue in relation to ‘El Alto’ city students, just 50% of them have the Spanish as a mother tongue and in 43% the ‘Aymara’ language is the mother tongue (Castro and Ramos, 2007:109).

There is a good attitude to English language because they stated that the most important language at present is English (70%). Few considered ‘Aymara’ as the most important (14%) but it is increasing surpassing to their own L1. They preferred Spanish as L1 for their descendants (64%) because we are in Bolivia, but 20% of them would rather prefer English. Conversely to mother language, for second language English is the desired
language (54%) for their descendants. It means that about a half of the students would prefer for their children the English language as a second language.

According to contrastive analysis of ‘La Paz’ and ‘El Alto’ city students’ linguistics attitudes, students of ‘El Alto’ city showed a high positive attitude to ‘Aymara’ language and in the second place is the English language; it demonstrates that English is the language of most prestige, its usage is accepted in all kind of society activities (Apaza, 2000 in Castro and Ramos, 2007:151).

The values indicate a good attitude to English language in Agronomy students. It is the seeds of motivation for learning English language. This motivation has to be increased through the use of real materials and accomplishing the real needs of students in terms of English language. So the course design will consider the real materials, real needs, real objectives, etc.

4.1.1.3. Needs Analysis

It is essential to consider the specific needs, which may be of two sorts: target needs and learning needs of ESP students. I mean, what learners will be required to do with the foreign language in the target situation and how learners might best master the target language during the period of training, both of them are considered in the present Needs Analysis (Wozniak, 2010:244).

![Figure 14. Level of English](image)
Many Agronomy students had basic knowledge of English Language (79%). This result ensured the statement that Agronomy students do not have a good knowledge of English language. It is the reason why I am going to include into the course design the Foundation course because it is needed to teach the basic elements of the language.

The same trend was found by Castro and Ramos (2007:138) who found 61% of interviewees had a basic knowledge of English with shortage in all skills; also they found that the majority of ‘El Alto’ city interviewees had knowledge of English with so many shortages in all skills. Therefore, it was necessary to implement modules of General English into the ESP course for Tourism students.

![Diagram showing main problems when learning English language](image)

**Figure 15.** Main problems when learning English language

Speaking was the most problematic aspect for Agronomy students, having this problem a quarter of Agronomy students. In the second position was the grammar (21%). Pre-university students had the same problems when they are learning English. As a consequence of that it will be focused speaking in the course design.

Interviewees in ‘El Alto’ city had the same problems of ‘La Paz’ city students; in ‘El Alto’ 33% had problems with speaking and 20% with grammar and writing (Castro and Ramos, 2007:144).
Figure 16. Reasons for English language learning

28% of Agronomy students wanted to learn English language for going abroad 23% for job and 22% for scholarships. Agronomy students would like to learn English language for continuing their studies (pre and postgraduate courses).

In ‘El alto’ city the main reasons to learn English were to get a job, to communicate with friends and to go abroad with frequencies of 32%, 28% and 15% respectively (Castro and Ramos, 2007:139).

The main need of ‘Nur’ university students was to understand their field of study and to have opportunities of getting better jobs in the future (Pol, 2000:49).

Figure 17. Most important skill of English for Agronomy students
Speaking was the most important skill for Agronomy students (53%). Reading also was considered an important skill for Agronomy students reaching a value of 22%. They indicate that Speaking and reading will be considered in the course design.

Castro and Ramos (2007:151) found that the four skills known as reading, writing, listening and speaking were crucial for interviewees in ‘El Alto’ city.

At private university, students answered in the same trend as Agronomy students. Nur University students preferred to speak in English rather than read texts in English with a value of 70% (Pol, 2000:72). These results can be considered as ‘wants’; students at tertiary level want to speak.

Almost half of Agronomy students (46 %) needed English for understanding specialized texts, it means, texts related to Agronomy sciences like soils, climate, plant, animals, etc. They are signs for including real materials in the course design in order to motivate students.

These results were observed in the interviews, where a student said: “… because the up-to-date bibliography is written in English. There is not so much specialized bibliography in Spanish” Another student said “…some software applied in Agronomy are just in
English and it is too difficult to understand, and their manual are in English, so to understand this kind of information we have to translate and to understand with the consequence of waste of time”.

The results found here, followed the same tendency in private university students. Pol (2000:51) reported that 86% of students preferred English to read material related to their field of study, I mean specialized texts like agronomy students.

**Figure 19.** Adequate time for learning English language

48% stated that English has to be taught in a period of more than three semesters. It was obtained the same trend in Pre-university students. It confirms the duration of ESP in Agronomy department of four semesters. This period has to be included in all Departments at tertiary level in order to improve the higher education in Bolivia. But for practical, economical and political issues I am going to include just two semesters of ESP courses.

**Figure 20.** Preferred hours per week for English classes
Six of ten agronomy students stated that the necessary time of English classes per week is 3 hours, three hours per week means two classes per week. This amount of time should be discussed at tertiary level with all actors of higher education such as students, professors, principals, etc. A language needs more time for being taught.

Some private universities such as ‘Nur’ University possess 3 hour per week of Technical English classes. But students, through interviews, affirmed that 3 hours per week is not enough time to fulfill students’ demands (Pol, 2000:47).

Figure 21. Desired English facilitator

A half of students liked to have English professionals with specializations in Agronomy department as teachers. This result requires facilitators with two professions: English professional and Agronomist. The first course may be given by an English language professional because he/she will teach a Foundation course with social English, but the remaining facilitators have to manage English and have knowledge about the Agronomy department.

In other researches related to needs analysis, 53% of students preferred to have an English professional as a facilitator, 20% a native speaker and 17% a foreign professional (Castro and Ramos, 2007:146).
Teachers have not specialized in the field they teach and contents/techniques used by them are not relevant to the students’ profession and it can result in low motivation. ESP teachers have to struggle to master language and subject matter beyond the bounds of their previous experience (Cariaga, 2008:43; Hutchinson and Waters, 1987 in Wu and Badger, 2009:19).

![Figure 22. Preferred activities for learning English language](image)

It is a variation of preferred activities for learning English language. Nowadays it is used many activities in order to motivate students. All activities mentioned in the figure 22 will be included in the course design adding other activities.

If we use only one activity in all classes, it can be boring. ‘Nur’ university students were trained by reading method and some of students stated: “It is boring”, “We don’t like to read all the time”, “We would like to listen some music or translate some songs instead of reading”, etc. (Pol, 2000:73, 74).
Students use many strategies for better English learning. 29% of them used the practice as a better strategy. Other strategies used by them were listening (23%) and speaking (22%). A facilitator has to take into account these strategies for their class work; so I included these strategies in the course design in chapter V.

29% of interviewees preferred to learn English language through records, 20% by participation and translations and 16% through conversations (Castro and Ramos, 2007:144).

46% would like to work in groups. In teaching of languages is important to work in groups of different sizes because they can use the language in real contexts and they can help each other. The course design focused on group works through tasks, projects, researches, etc.
The ‘El Alto’ city’s interviewees desired to work in groups with a value of 60%, 27% and 13% preferred to work in pairs and individually respectively (Castro and Ramos, 2007:145).

![Desired materials for English classes](image)

**Figure 25.** Desired materials for English classes

Audiovisuals got the highest frequency of 37%, followed by English textbook and specialized texts with values of 23% and 20% respectively. The course design incorporated all materials described in the figure 25 and added other materials according to the student level in terms of English language.

Students preferred audio-visuals, with the highest frequency. It may be reached by www as an academic tool. Nowadays students are skillful users of the net. It is corroborated with the following results: postgraduates using WWW were 19% and undergraduates using WWW were 67%. Therefore the facilitator has to consider the web as a crucial material for learning-teaching process (Slaouti, 2002:105).

Interviewees of El Alto city would prefer to use songs, radio and television programs, internet and news with frequencies of 23%, 18%, 18% and 17% respectively (Castro and Ramos, 2007:145).

All the materials used on an ESP course should be real. It is supported by interviews made to students of ‘Nur’ University; students said “texts for reading are
incomprehensible, “boring”, etc. they demonstrated interest in having more interesting and real topics in their fields (Pol, 2000:84).

Figure 26. Kind of examination that students would like to perform

Agronomy students wanted to be evaluated through oral examinations (51%). Oral and written examinations are vital for students’ qualification. So the course design comprised both examinations. It means that the course design has to take into account the four English Skills: writing, reading, listening and speaking.

Figure 27. Preferred type of evaluation

More than the half of the students (55%) liked to be evaluated in all the classes, it means a formative evaluation. This type of evaluation is applied in all courses of English Area in Agronomy department. Each class will be evaluated in order to leave the antiquated summative evaluation.
There is a diversity of means of evaluation. In general terms 33% desired an evaluation by oral and/or written production; 26% preferred to be evaluated by participation and 16% by tasks. Almost a quarter of students did not answer, maybe because students would like to be evaluated by other means. With the application of those means will be left out the summative evaluation.

In general regular students were male and female in the same quantity, they were identified as middle social class (80%) and single (90%). 94% of them had Spanish as L1 but considered English as the most important language (70%) preferred English as L2 in their descendants (54%). The frequencies show that there is a good attitude to English language in regular students. It increases the motivation of students, so ESP courses have to be included in the Agronomy curriculum as a subject.

Regular students had just basic knowledge of the English language (79%) with problems in all four skills (speaking, writing, listening and reading). They required English for job and study and for understanding specialized texts (46%). The most important skill for them was speaking (53%) with English courses lasting more than 3 semesters (48%) with 3 hours per week (62%). The desired English professor was an English professional with agro-specialization (49%). They preferred to work in groups (46%) with the help of audio-visuals (37%). Regular students liked oral exam (51%) by formative evaluation (55%) through oral and written production (33%).
The results confirm the hypothesis stated that students have necessities and objectives on English that will be given in an ESP course. Students liked to have ESP courses for more than three semesters, but for many reasons it is not possible, so the Preliminary course design on ESP will last just two semesters. But I can suggest that all tertiary level have to include English in four semesters to increase the quality of our professionals, because the English language is the language of science and technology, at least nowadays.

4.1.2. Professors

4.1.2.1. General data

Figure 29. Gender of Agronomy professors

Figure 30: Social class identification
Almost all Agronomy professors were male (90%) and were identified with the middle class (90%). Many of them are married with a frequency of 70%. Agronomy professors were from La Paz city with a value of 60% and 30% of them were from ‘El Alto’ city.

4.1.2.2. Attitude

Figure 33. Mother tongue (L1)
Table 3. Languages’ knowledge

<table>
<thead>
<tr>
<th>Known languages</th>
<th>hi(%)</th>
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</table>

Professors of the Agronomy department were more prepared in terms of languages, because 31% of them had an intermediate level of English, 13% had a basic knowledge and 6% had advanced level of English language. It can be inferred that Agronomy students need the English language, because professionals of Agronomy had more knowledge of English, due to the necessities of professionals. According to the interview 2 he said: “English is essential for writing reports, to search information and to prepare your technical report. Also is necessary for writing books and especially for research.”
90% of the professors established Spanish as a mother tongue (L1) and few of them had ‘Aymara’ as a mother tongue. 31% established an Intermediate level of English language; 12% basic level and 6% advanced level of English language. It means that a half of Agronomy professors had some knowledge of English language.
Through figure 34 we can see a good attitude to English language, because professors stated that English is the most important language nowadays with a frequency of 80%. This good attitude is confirmed in figures 35 and 36, because 40% of them preferred English as a mother tongue abandoning the Spanish as a mother tongue. I can infer through this, that Professors know the importance of English language in the future studies and jobs of their children. 70% of them stated English as a second language for their children.

4.1.2.3. Needs Analysis

Figure 37. English level of Agronomy Professors

Agronomy professors established an intermediate level of English language (50%) 40% had a basic knowledge and a few of them stated an advanced level of English language. It is a good indicator that they can help English professors through specialized bibliography in English.

Figure 38. Main difficulties when Agronomy professors learned English language
The most problematic aspects were grammar and conversation when they were learning English with frequencies of 29% and 22% respectively. On students these items were similar to professors. As I have stated before grammar will be taught by using real materials and tasks and speaking with interaction of students.

**Figure 39.** Reasons for learning English language

Nearly a half of professors wanted to learn English for study purposes (47%). They need the English language for postgraduate studies because they want to get a Master degree and a Ph.D. degree. Like students the main reason for learning English is for studies; as a result of that, it is essential to incorporate English as ESP (English for Specific Purposes) not only in Agronomy department but in all departments at tertiary level.

**Figure 40.** Most important skill for Agronomy Department

Professors had worked as professionals and they already know the most important skills for their jobs, so they have established reading and speaking as the most important skill
for Agronomy performance with a frequency of 46% in both cases. Then speaking and reading will be considered in the course design presented in chapter V.

Professors at ‘Nur’ University stated that the main objective of Technical English courses is “To be able to read and translate in their field of study” (Pol, 2000:64). It supports the tendency that reading is the most important skill for Latin-American students.

The mentioned before is evidenced by Swales (2007) in Celani (2008:420) who said “…how and why EAP varies around the world; after all, South America stresses reading comprehension, Scandinavia specialized translation, Eastern Europe terminology, France semiotics, the US disciplinary teaching by international teaching assistants, and Spain genre analysis.”

![Figure 41. Needs for English language](image)

Agronomy professionals need English for understanding specialized texts related to their field; it is checked by the frequency of 60% in that item. Reading has to be taught to students for their future specialized reading in Agronomy sciences like soils, plant, animals, environment, etc. In EAP course will be used authentic materials of Agronomy sciences.
Figure 42. Required time for learning English language

All groups coincided that English classes have to be of more than 3 semesters; professors with their experience established with 60% of frequency that English classes has to be imparted in more than three semesters.

Figure 43. Hours per week needed for English classes

Both groups, students and professors stated a preference by 3 hours per week for English classes. Many professors (70%) said that English has to be given by 3 hours per week; it means two English classes per week.

Three hours per week were practiced at ‘Nur’ University. But the author said that 3 hours a week are not enough to fulfill students’ demands. There is a necessity of adding at least one more hour per week (Pol, 2000:112).
Figure 44. Desired type of facilitator

Professors would like to have English professionals with knowledge of Agronomy sciences (37%); with the same frequency they would like to have English professional as facilitators (36%). I can infer from the results that the facilitator has to be English professional and it can add a plus with specialization in agronomy sciences.

The English facilitator should increase his/her knowledge in the special field in order to improve the ESP courses at university level. Most of English facilitators at ‘Nur’ University answered positively to this question. “As English facilitator I realized that I had to educate myself with basic subject knowledge, a factor that I had never previously considered a key element for teacher qualification” (Pol, 2000:70; Chen, 2000:390).

Figure 45. Preferred activities for learning English language

Reading, text production and grammar exercises reached the same frequency of 23%. There is no a preferred activity by Agronomy professors. It indicates that the course
design is going to implement those activities in figure 68 and other activities in order to improve the process of learning-teaching.

Figure 46. Techniques applied for Agronomy professors for better English learning

Listening and reading were the techniques applied by Agronomy professors with more frequency in order to have a better understanding of English language (25% for each one). All techniques (figure 69) adding other techniques will be implemented in the course design in order to qualify the English education.

Figure 47. Desired work in the classrooms

Like students, Agronomy professors considered work in groups are the best way to learn English language (60%). Facilitators have to take into account to work inside and outside classroom with groups, because it improves the acquisition of language. It does not mean to abandon the other classroom works but we have to focus our work in groups of students.
Like students, more Agronomy professors liked audiovisuals (40%); with the same frequency of 20% were found specialized papers and English textbook. Facilitators have to concentrate on audiovisuals because through them there is more retention of knowledge. The course design has to implement all the materials on figure 48 adding others according to the level of students.

More than the half of professors has preferred oral examination (55%). 27% stated written examination. Both kinds of examinations will be considered. Oral examination is going to be considered in EOP course and written examination in EAP course.

**Figure 48.** Preferred materials for learning English language

**Figure 49.** Kind of examination desired
With the experience on teaching process, Agronomy professors preferred a continuous evaluation; it means a formative evaluation (60%). English courses at tertiary level want to leave the stress of Summative evaluation and the language can be acquired through practice and evaluation all the classes; so I am going to focus on formative evaluation.

To support formative evaluation I will apply all means of evaluation on figure 74 adding others in order to improve the learning-teaching process. Professors liked to be evaluated by participation (46%), 36% by oral and/or written production and finally 18% of them by tasks.

In general, the Agronomy department had more male professors (90%) belonging to the middle social class (90%) and married (70%). Almost all of them had Spanish as L1 (90%) considering that the most important language is the English (80%). They preferred English as L2 in their children (70%). As pre-university students and regular
students there is a good attitude to English language. It indicates a good time to incorporate English as ESP into the curriculum of the Agronomy department.

Professors had more knowledge of English, considering themselves as intermediate (50%) with problems in all skills. They wished English to study purposes (47%) and for understanding specialized texts (60%). The most important skills for them was reading and speaking with the same frequency (46%). 60% of them preferred English classes for more than three semesters with 3 hours per week (70%). Professors liked to have as facilitators an English professional with agro-specialization (37%) working in groups (60%) with audio-visuals (40 %). Like students they preferred oral exam (55%) with a formative evaluation (60%) by participation (46%).

Agronomy professors have many needs in English language. Then I can confirm the hypothesis that professors and students have needs and objectives in terms of English language which will be given in the form of an ESP course.

4.2. Attitude Scale

4.2.1. Students

In order to answer the hypothesis: “The professors and students of the Agronomy Department of the UMSA have positive attitudes towards English language” it was done 5 questions in relation to Attitude. The questions were 6, 7, 8, 9, and 10.
**Question 6:** “The English language is a subject that should be included in the syllabus (Agronomy Department)”

**Table 4. Frequency of answers in question 6**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>83</td>
<td>44.15</td>
</tr>
<tr>
<td>Agree</td>
<td>65</td>
<td>34.57</td>
</tr>
<tr>
<td>Neutral</td>
<td>26</td>
<td>13.83</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>5.32</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>4</td>
<td>2.13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>188</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

78.72% of students of the Agronomy Department agreed that English has to be included into their syllabus because it is necessary for many purposes of the future Agronomists. 13.83% were neutral and 7.45% disagreed with the inclusion of English as a subject in the syllabus of the Agronomy Department. Students usually agreed with the inclusion of the English language as a subject.

**Question 7:** “The most important tongue is the English language”

**Table 5. Frequency of answers in question 7**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>44</td>
<td>23.40</td>
</tr>
<tr>
<td>Agree</td>
<td>79</td>
<td>42.02</td>
</tr>
<tr>
<td>Neutral</td>
<td>53</td>
<td>28.19</td>
</tr>
<tr>
<td>Disagree</td>
<td>8</td>
<td>4.26</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>4</td>
<td>2.13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>188</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
There is a good attitude to the English language, because 65.42% of the students of the Agronomy Department agreed that the English is the most important language. Just 6.40% disagreed with the English language and 28.19% were neutral. Students often accepted the English tongue as the most important language. It is corroborated with the interview, where students said that all the new materials were written in English language.

**Question 8:** “It is necessary that you know the English language”

Table 6. Frequency of answers in question 8

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>85</td>
<td>45.21</td>
</tr>
<tr>
<td>Agree</td>
<td>82</td>
<td>43.62</td>
</tr>
<tr>
<td>Neutral</td>
<td>16</td>
<td>8.51</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>1.60</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2</td>
<td>1.06</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>188</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Students want to learn English language; the reason to say it is due to the 88.83% of students who should speak the lingua franca (English language). Just 3 students of 100 students consider that they should not speak the English language; and 8.51% were neutral. It means that generally, students considered speaking English as a necessity for them.

**Question 9:** “To know the English language gives you better opportunities to get a job/work”
Table 7. Frequency of answers in question 9

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>88</td>
<td>46,81</td>
</tr>
<tr>
<td>Agree</td>
<td>71</td>
<td>37,77</td>
</tr>
<tr>
<td>Neutral</td>
<td>23</td>
<td>12,23</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>2,13</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2</td>
<td>1,06</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>188</strong></td>
<td><strong>100,00</strong></td>
</tr>
</tbody>
</table>

Students were conscious that knowledge of the English language is a plus to get a job. They agreed with the sentence with a frequency of 84.58%, it indicates that of 100 students, 85 students considered that English is critical to get a better job. Only 3.19% of them disagreed and 12.23% were neutral. Regularly, students considered the English language as a tool to get a better job.

**Question 10:** “To know the English language gives you better opportunities in your studies”

Table 8. Frequency of answers in question 10

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>73</td>
<td>38,83</td>
</tr>
<tr>
<td>Agree</td>
<td>82</td>
<td>43,62</td>
</tr>
<tr>
<td>Neutral</td>
<td>23</td>
<td>12,23</td>
</tr>
<tr>
<td>Disagree</td>
<td>7</td>
<td>3,72</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>3</td>
<td>1,60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>188</strong></td>
<td><strong>100,00</strong></td>
</tr>
</tbody>
</table>

82.45% agreed that the English language is an important tongue which is considered the language of science and technology; it means that English is the international language.
12.23% were neutral and 5.32% disagreed with the statement. Generally, students of the Agronomy Department considered knowing the English language as a medium to have better opportunities in their studies. All the answers confirmed the stated hypothesis.

If we generalize all the information of the questionnaire related to attitude towards the English language, we can observe the following table (table 9):

**Table 9.** Frequency table of attitude towards the English language

<table>
<thead>
<tr>
<th>Likert scale</th>
<th>ni</th>
<th>Ni</th>
<th>hi</th>
<th>Hi</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>3</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>6</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>9</td>
<td>0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>15</td>
<td>8</td>
<td>17</td>
<td>0.04</td>
<td>0.10</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>23</td>
<td>0.03</td>
<td>0.13</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>27</td>
<td>0.02</td>
<td>0.15</td>
</tr>
<tr>
<td>18</td>
<td>16</td>
<td>43</td>
<td>0.09</td>
<td>0.23</td>
</tr>
<tr>
<td>19</td>
<td>16</td>
<td>59</td>
<td>0.09</td>
<td>0.32</td>
</tr>
<tr>
<td>20</td>
<td>32</td>
<td>91</td>
<td>0.17</td>
<td>0.49</td>
</tr>
<tr>
<td>21</td>
<td>10</td>
<td>101</td>
<td>0.05</td>
<td>0.54</td>
</tr>
<tr>
<td>22</td>
<td>15</td>
<td>116</td>
<td>0.08</td>
<td>0.62</td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>140</td>
<td>0.13</td>
<td>0.75</td>
</tr>
<tr>
<td>24</td>
<td>23</td>
<td>163</td>
<td>0.12</td>
<td>0.87</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
<td>188</td>
<td>0.13</td>
<td>1.00</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ni: absolute frequency; Ni: absolute accumulated frequency; hi: relative frequency; Hi: absolute accumulated frequency
By the information given on table 9 and figure 52 I can conclude the following aspects: Regular students of Agronomy department had a better attitude to English language because just 10% of them had a negative attitude to English language; and 90% of Agronomy students got positive attitude to English language. 13% of Agronomy students resulted in totally favorable attitude with a value of 25. Overall there is a favorable attitude to English language in Agronomy students.

4.2.2. Professors

Taking into account the professors of the Department of Agronomy the results were the following:

**Question 6:** “The English language is a subject that should be included in the syllabus (Agronomy Department)”

**Table 10.** Frequency of answers in question 6

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of professors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>7.0</td>
<td>70.0</td>
</tr>
<tr>
<td>Agree</td>
<td>2.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>1.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
90% of professors agreed that English has to be included in the syllabus of the Agronomy Department; just 10% were neutral. Nobody disagreed. These results were corroborated with the interviews. One interviewee said “…English language is needed for future agronomist professionals, because to get funds, to get a scholarship, for doing investigations, etc”. Generally, professors agreed with the inclusion of the English language as a subject in the syllabus of the Department of Agronomy.

**Question 7:** “The most important tongue is the English language”

**Table 11.** Frequency of answers in question 7

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of professors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>6.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Agree</td>
<td>2.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>1.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Professors considered the English tongue as the most important language (80%), only 10% considered another tongue as the most important language and 10% were neutral. In the interviews one professor said: “…nowadays the language of communication par excellence is the English. To communicate with the world it is necessary to speak English” These results indicate a good attitude to the English language because professors usually agreed with the importance of the English language.
**Question 8:** “It is necessary that you know the English language”

**Table 12.** Frequency of answers in question 8

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of professors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Agree</td>
<td>4.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>1.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

90% of professors of the Agronomy Department agreed that it is necessary to know the English language. 10% were neutral and nobody disagreed with the statement. One interviewee said: “English language is essential for writing reports, to search information and to prepare your technical report. Also it is necessary for writing books and especially for investigation”. As you can observe the English language is necessary for the students and professional of the Agronomy Department and for all professionals at tertiary level.

**Question 9:** “To know the English language gives you better opportunities to get a job/work”
Table 13. Frequency of answers in question 9

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of professors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>6.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Agree</td>
<td>1.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>3.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Professors who have experience in the field, agreed that the English language knowledge is important to get a better job (70%); and 30% of them were neutral. With respect to this question one interviewee said: “…another problem was in a meeting to get funds for projects needed in our country with NGO’s, all the meeting was in English, so I couldn’t say anything…” It is corroborated with the ads that require people with knowledge in computer sciences and English language.

**Question 10:** “To know the English language gives you better opportunities in your studies”

Table 14. Frequency of answers in question 10

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number of professors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>6.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Agree</td>
<td>4.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
All professors agreed that the English language knowledge gives students and professors better opportunities in their studies (100%). Nobody disagreed with the statement and nobody was neutral. It is corroborated with the interviews where one interviewee said: “…when I applied to a scholarship on Postgraduate course I was not selected because I could not speak and understand the English language…” It is clear that not only professors and students of the Agronomy department but all students and professors of private and public universities need the English language for different purposes.

If we generalize all the information of the questionnaire related to attitude towards the English language, we can observe the following table (table 15):

**Table 15. Frequency table of attitude towards the English language**

<table>
<thead>
<tr>
<th>Question</th>
<th>Professors</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3 5 5 5 5 4 5 4 5 5</td>
<td>7 2 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3 5 4 5 2 5 5 4 5 5</td>
<td>6 2 1 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3 5 4 5 4 4 5 4 5 5</td>
<td>5 4 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3 3 4 5 3 5 5 5 5 5</td>
<td>6 1 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>4 5 5 4 5 4 5 5 4 5</td>
<td>6 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SA: Strongly agree; A: Agree; N: Neutral; D: Disagree; SD: Strongly disagree

If we see table 15 we can infer that Agronomy professors did not have a negative attitude to English language, more than 50% of professors strongly agree which means that professors had a positive attitude to English language. In general terms there is a favorable attitude to English language in both groups: regular student and professors of the Agronomy Department.
4.3. Central tendency and dispersion

4.3.1. Students

Table 16. Descriptive statistics of members into the family

<table>
<thead>
<tr>
<th>Statistical elements</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Unit</td>
<td>5.82</td>
</tr>
<tr>
<td>Median</td>
<td>Unit</td>
<td>6.00</td>
</tr>
<tr>
<td>Variance</td>
<td>Unit$^2$</td>
<td>5.08</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Unit</td>
<td>2.25</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>%</td>
<td>38.72</td>
</tr>
<tr>
<td>Minimum</td>
<td>Unit</td>
<td>1.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>Unit</td>
<td>16.00</td>
</tr>
<tr>
<td>Missing values</td>
<td>Unit</td>
<td>20.00</td>
</tr>
</tbody>
</table>

5.82 ± 2.25 members into their families was the mean value in Agronomy students. The data were variable reaching a CV of 38.72%; the minimum value was 1 member into the family and the maximum value was 16 members into the family. 10.64% of them did not answer this question.
Table 17. Descriptive statistics of students’ age

<table>
<thead>
<tr>
<th>Statistical elements</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Years</td>
<td>21.81</td>
</tr>
<tr>
<td>Median</td>
<td>Years</td>
<td>21.00</td>
</tr>
<tr>
<td>Variance</td>
<td>Years²</td>
<td>15.62</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Years</td>
<td>3.95</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>%</td>
<td>18.13</td>
</tr>
<tr>
<td>Minimum</td>
<td>Years</td>
<td>15.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>Years</td>
<td>40.00</td>
</tr>
<tr>
<td>Missing values</td>
<td>Unit</td>
<td>34.00</td>
</tr>
</tbody>
</table>

They obtained a mean of 21.81 ± 3.95 years old. 50% of Agronomy students were more than 21 years old. The age was not so variable reaching a CV of 18.13%; with a minimum value of 15 years old and maximum value of 40 years old. 18.09% have not answered this question, maybe because many of them are not comfortable saying their age. ESP mainly is directed to adult learners, and students of Agronomy department are adults, so as facilitators we have to incorporate an education for adult learners.

Adult learners are, in most cases: voluntarily involved in learning; conscious of the learning process to reach their personal/academic/vocational fulfillment; conscious of and reflective on their own learning preferences and difficulties (Sifakis, 2003:203, 204).
Table 18. Descriptive statistics of Likert scale

<table>
<thead>
<tr>
<th>Statistical elements</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Points</td>
<td>20.68</td>
</tr>
<tr>
<td>Median</td>
<td>Points</td>
<td>21.00</td>
</tr>
<tr>
<td>Variance</td>
<td>Points²</td>
<td>12.59</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Points</td>
<td>3.55</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>%</td>
<td>17.16</td>
</tr>
<tr>
<td>Minimum</td>
<td>Points</td>
<td>5.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>Points</td>
<td>25.00</td>
</tr>
</tbody>
</table>

There is a positive attitude to English language with an average of $20.68 \pm 3.55$ points. 50% of the data got a totally favorable attitude to English language because they reached more than 21 points. This variable was not so variable reaching a CV of 17.16%. The minimum point was 5 and the maximum was 25 points. These results are a signal that Agronomy students had a positive attitude to English language.

When a study done a research in students of a Private university the results showed a positive attitude towards the language, because they liked to learn English very much with a frequency of 73% (Pol, 2000:45).
4.3.2. Professors

Table 19. Descriptive statistics of members into the family

<table>
<thead>
<tr>
<th>Statistical elements</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Unit</td>
<td>4.80</td>
</tr>
<tr>
<td>Median</td>
<td>Unit</td>
<td>4.50</td>
</tr>
<tr>
<td>Variance</td>
<td>Unit²</td>
<td>1.96</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Unit</td>
<td>1.40</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>%</td>
<td>29.13</td>
</tr>
<tr>
<td>Minimum</td>
<td>Unit</td>
<td>3.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>Unit</td>
<td>8.00</td>
</tr>
<tr>
<td>Missing values</td>
<td>Unit</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Agronomy professors got an average of 4.80 ± 1.40 members into their families. The data were variable reaching a CV of 29.13%; the minimum value was 3 members into their families and the maximum value was 8 members into their families. 50% of Agronomy professors had more than 4.50 components in their families.

Table 20. Descriptive statistics of professors’ age

<table>
<thead>
<tr>
<th>Statistical elements</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Years</td>
<td>49.22</td>
</tr>
<tr>
<td>Median</td>
<td>Years</td>
<td>47.00</td>
</tr>
<tr>
<td>Variance</td>
<td>Years²</td>
<td>37.69</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Years</td>
<td>6.14</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>%</td>
<td>12.47</td>
</tr>
<tr>
<td>Minimum</td>
<td>Years</td>
<td>40.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>Years</td>
<td>61.00</td>
</tr>
<tr>
<td>Missing values</td>
<td>Unit</td>
<td>1.00</td>
</tr>
</tbody>
</table>
The mean value was 49.22 ± 6.14 years old. 50% of Agronomy professors were more than 47 years old. The age was not variable because CV was 12.47%, with a range of 21 years old being the minimum value 40 and the maximum value 61 years old. Like students, professors are not comfortable saying their age because 10% of them did not answer this question.

Table 21. Descriptive statistics of Likert scale

<table>
<thead>
<tr>
<th>Statistical elements</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Points</td>
<td>22.10</td>
</tr>
<tr>
<td>Median</td>
<td>Points</td>
<td>22.50</td>
</tr>
<tr>
<td>Variance</td>
<td>Points²</td>
<td>7.43</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>Points</td>
<td>2.73</td>
</tr>
<tr>
<td>Coefficient of Variation</td>
<td>%</td>
<td>12.34</td>
</tr>
<tr>
<td>Minimum</td>
<td>Points</td>
<td>16.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>Points</td>
<td>25.00</td>
</tr>
</tbody>
</table>

Finally Agronomy professors had an average value of 22.10 ± 2.73 points. The half of them got values higher than 22.50 points which indicates a favorable attitude to English language. The data were not variable reaching CV a value of 12.34% with a minimum of 16 and 25 as maximum point. These results show a positive attitude to English language.

4.4. Hypothesis testing

This research stated two hypotheses that are described in the following paragraphs indicating if they were accepted or rejected.

First hypothesis: “The professors and students of the Agronomy Department of the UMSA have positive attitudes towards English language”.
On the whole, there is a positive attitude of students and professors of the Agronomy department. It is corroborated with the frequency tables of regular students and professors; and also I have obtained a mean value in the Likert scale of 20.6 over 25 with a standard deviation of 3.55 and 22.10 over 25 with standard deviation of 2.73 of regular students and professors respectively. These results indicated that there is a good motivation to incorporate English as a subject into the curriculum of the Agronomy department. And ESP not only has to be included in Agronomy department but in all departments of public universities and in general in all tertiary education in order to improve the quality of our professionals.

79% and 90% of students and professors respectively of the Agronomy Department agreed with the inclusion of the English language into their syllabus. 65% and 80% of students and professors respectively agreed that the English is the most important language. 89% and 90% of students and professors respectively considered that they have to know the English language. 84% and 80% of students and professors respectively agreed that knowledge about the English language give them better opportunities to get a job and for studies.

According to the previous results, the hypothesis stated in the Chapter I: Introduction, is accepted: The professors and students of the Agronomy Department of the UMSA have positive attitutes towards the English language.

**Second hypothesis: “The students and professors have needs and objectives in terms of an ESP course design”**.

The average age found in regular students and professors were 21.81 with a standard deviation of 3.95 and 49.22 with a standard deviation of 6.14 respectively. It indicates that as course designers we have to teach adult learners, being one of the most important characteristics of ESP courses.
Regular students and Agronomy professors according to the results described before, have needs and objectives in terms of English language, specifically on English for Specific Purposes (ESP). Students and professors had Spanish as a mother tongue (L1) but they considered English the most important language with frequencies of 70% and 80% for regular students and professors in that order.

The knowledge of English in general is low. Regular students had 79% of basic knowledge; professors reached 50% of intermediate level. It indicates that the ESP course design needs to incorporate an introductory course, it will be known as Foundation course, which will include elements of the English language and social English.

Regular students and professors had problems in all skills: speaking, writing, listening and reading. They considered so necessary the English language for their jobs and studies, in the case of professors for their studies to obtain the M.Sc. And PhD level; and they needed English for understanding specialized texts. Therefore the preliminary course design and course designers have to consider the four skills through tasks, skills based curriculum, etc. Also in the future all tertiary level needs to take into account EAP (English for Academic Purposes) and EOP (English for Occupational Purposes).

According to the results, 53% of regular students considered Speaking as the most important skill for being developed; and professors stated that the most important skill for the Agronomy department are reading and speaking with a frequency of 46% for each one, It means 92%. The agronomy department wants speaking and reading but I am going to include the four skills.

61% of students need the English language for understanding specialized texts and for translations. And professors of the Agronomy Department need the English language for
understanding specialized texts (texts related to the Agronomy field like soil sciences, environment, animal production, biotechnology, hydrology, etc.).

They preferred English classes for more than three semesters with values of 48% and 60% of regular students and professors respectively. 62% of students and 70% of professors wanted 3 hours of ESP classes per week having as a facilitator an English professional with agro-specialization. As a recommendation I can suggest that ESP courses at tertiary level have to be made in four semesters to manage the English language.

Regular students and professors liked to work in groups, with frequencies of 46% and 60% respectively. It indicates that ESP courses are not individualistic, they are cooperative and even we can adapt the new trends of ‘Avelino Sñani’ law: the ‘sociocomunitary model’.

Finally the evaluation that they preferred was the formative evaluation with an average of 58%; they liked to be evaluated through participation, oral examinations and oral and written production. Therefore, the evaluation has to be continuous, each class needs to be evaluated in order to leave the stress of examinations period.

With all the previous results found in the Agronomy Department through questions to professors and students in this Department of the ‘UMSA’ (‘Universidad Mayor de San Andrés), the second hypothesis is accepted, therefore: The students and professors have needs and objectives in terms of an ESP course design.
CHAPTER V: PRELIMINARY COURSE DESIGN

5.1. English Area

Most English-speaking universities now require international English language placement tests; I mean International English examination like IELTS, TOEFL, etc. Even people of countries that have another mother language need English to continue their studies. However, from the educational perspective, student’s expectations for learning English are regularly influenced by their secondary school experiences and the Higher Education culture of learning. It is rare that secondary school classes encourage spoken activities and there is no formal evaluation of oral skills, and the overall tendency for traditional, teacher-centered content based mode of teaching in the University, reinforces these expectations (Mavor and Trayner, 2001:346).

Like in many countries, teaching ESP has a marginal status, or it is not taught in many universities, with no clear curricular guidance from institutions or from the Ministry of Education as to expected linguistic or communicative standards. There is little or there are not researches in this new area (Mavor and Trayner, 2001:347).

But, how is the reality in our country? The public university of La Paz – Bolivia (UMSA) is teaching English as a compulsory subject inside its syllabus just in 12 Careers which belong to 6 departments of 13 departments. ESP is not taught in about 78 % of the Careers of UMSA. In an open interview one student said that he would prefer to have subjects of his own field than English as a subject.

For those reasons mentioned before and others it is essential, very important to incorporate an English area in all tertiary level in Bolivia. The higher education has to give the main tools to the students to increase the science, research and technology in our developing country. And it will be reached through the communication with the
world by a common instrument that is the English language, which should be incorporated into the Agronomy department.

The English language should be incorporated as an area into the Agronomy department. One agronomist has to work in the following areas:

a) Free profession development through small-sized enterprises or own enterprises.
b) National and international organisms of animal and plant production planning.
c) The management of animal and plant production enterprises.
d) The generation of technology in Research institutes.
e) In agro-industrial enterprises.
f) Teaching.
g) Research.
h) Technical assistance.
(Carrera de Ingeniería Agronómica, 1997:27).

The curriculum of Agronomy department takes into account science, technology and communication with the world and the new law stated “The education is scientific, technical, technological and artistic developing the knowledge and wisdom from the point of view of native indigenous countrymen cultures, intercultural communities and “afrobolivians” cosmovision that is complementary with the universal knowledge and wisdom in order to contribute to an integral society development (Estado Plurinacional de Bolivia, 2011:4).

5.1.1. Introduction

In the middle Ages, scholars around Europe formed close-knit networks for sharing thoughts and discoveries. This was facilitated by a common lingua franca, Latin. The need for a lingua franca to keep this network going has not changed but in our time the
language is English and the scale of its use is unprecedented. Good English equals that of the educated native speakers; in other words, Standard English. Academic discourse needs to be learned specifically by novices entering to universities or research community, this is part of the secondary socialization that takes place in educational institutions (Mauranen et al 2010:184).

In general, English is the language of science and technology and with it we can communicate with the entire world. But at tertiary level there is a specialization, so learners need to have the ability to acquire the language needed for them in order to communicate with their counterparts; that is, to consider the specificity.

It is impossible to divorce language from context by ignoring specificity; putting specificity into practice can involve considerable challenges. Becoming literate in one’s discipline essentially means developing an awareness of the functions of texts and how these functions are conventionally accomplished. Expertise in a subject means being able to use its discourse in the specific way that our readers are likely to find effective and persuasive. Establishing exactly what are the specific language, skills and genres of particular groups on which we need to base learning priorities may well be extensive, time consuming and skill intensive. We have to consider specificity seriously (Hyland, 2002:393).

Preparing students for international communities of practice requires an integrated comprehension on the part of facilitators. I mean, the discourse of a professional community cannot be addressed without at least some comprehension of its conceptual universe (Mavor and Trayner, 2001:349). The universe of Agronomy department will be described in subsequent paragraphs.

In general terms, the Agronomy department has an academic system divided into semesters; it includes ten semesters of study. Students obtain a degree of Bachelor in
Sciences at the end of 8th semester, and the students can obtain the ‘Licenciatura’ at the end of 10th semester including the thesis. Each academic semester lasts 18 weeks, adding 2 administrative weeks being the total 20 weeks per semester. It is included a winter session (July) and summer session (January) (Carrera de Ingeniería Agronómica, 1997:29).

The new study plan includes three formation levels:

- Basic level
- Professional level
- Semi-specialization level

The basic level comprises from 1st to 3rd semester with 17 subjects and 80 credits. The professional level is located from 4th to 8th semester with 28 subjects and 113 credits and semi-specialization level comprises from 9th to 10th semester with a minimum of 8 subjects and 32 credits. All the subjects from each level are included on the appendix V (Carrera de Ingeniería Agronómica, 1997:29-31).

English needs to be included as a subject in the final semesters, specifically from 9th to 10th semester. It means two semesters for English area. Two semesters will be in the semi-specialization cycle. Because in open interviews students of other departments said that they forgot English because it was in the first and second semester. Another reason to include ESP at the end of the syllabus is that students will need up-to-date information for their thesis and generally it comes in English.

5.1.2. Facilitators

English facilitators through the questionnaire done need to be an English professional with specialization in the Agronomy field. But what happens if facilitators know nothing
about the Agronomy area. In order to answer this question we can apply the recommendations of Jordan (1997:252-256):

a) Asking questions
ESP teachers do not need to learn specialist subject knowledge. They only require three things: a positive attitude towards the ESP content; knowledge of the fundamental principles of the subject area; and an awareness of how much they probably already know of the subject matter. All of this can be summed up as ‘the ability to ask intelligent questions’.

b) Team-teaching
By both the subject specialist and the English tutor. The specialist acts as informants on what goes in the subject discipline. There may be varying degrees of co-operation: the provision of information including description of target situations and identification of problem areas; providing reading lists, recommended journals, timetables, etc.; assistance with writing or vetting teaching materials; recording short talks on audio-video for teaching and self-access purposes; etc.

c) Discipline-specific topics/texts
If students are from several disciplines, it may be possible to group them along broad subject lines, e.g.: plant production, animal production, agro-ecology, engineering, etc. In this case, topics will need to be broader based. One possible solution is to select a topic which may be approached in different ways by a number of disciplines.

d) Individualization/self-access
It can be reached by means of an individual project, selected by students from their own subject area; by the provision of a selection of audio-video tapes on different subjects; by the establishment of a small library of textbooks and specimen journals form some of the subject areas so that students may develop some familiarity with them.
The syllabus of English area will be described later on but for the Foundation course a specialist is not necessary, in the content area but for the one remaining course it is necessary some knowledge of the Agronomy field. All departments at higher education need facilitators with some knowledge of the subject matter. On this matter Cariaga (2008:137) said that English teachers’ status has been lowered by the area teachers’ view; English teachers face the problems of having two lessons of one and a half hour per week, the lack of contact with subject matter professors, the lack of respect and rapport from students.

Finally, I would like to add a comment that said Sifakis (2003:209) for English facilitators: “Successful combination of teacher and counselor role is essential for the planning of ESP classes that enhance adults’ function as learner/participants. ESP as advisors/counselors’ function is finding ways to both appreciate and enhance learners’ learning and studying needs as well as increasing the scope of adult learners’ exploratory behavior by offering psychological assistance where necessary”.

5.1.3. Common and dynamic axes

The common and dynamic axes are knowledge, wisdom, attitudes and practices which articulate the English course design. They are integral, holistic and interrelated that arise to leave the fragmentation of knowledge and wisdom. English area should have the following common and dynamic axes:
   a) Inter-cultural and intra-cultural education
   b) Research
   c) Technologies of information and communication

The English language teaching profession has to consider our own culture; it means to catch examples of other realities and to adapt to our conditions and at the same time to know other cultures like countries where the mother tongue is English. Research has to
be present in all levels and in all groups; students have to do researches in their content areas and facilitators through research can improve the learning-teaching process.

I am including the last common and dynamic axes based on a scientific article written by Slaouti (2002:105, 106). This paper mentioned that the WWW is still in its relative infancy – its beginnings only going back to 1992 – but as its growth has multiplied exponentially, its enormous potential to bring us into immediate contact with a world of global information.

The WWW uses the concept of hypertext (method of organizing information) in which specific parts of the information are highlighted on the screen. This sounds the panacea of the seeker of further knowledge. Here is a resource that takes us from one corner of the world to the other in seconds. It is a potential resource of up-to-date, specialist and generalist content on a range of topics now too wide to imagine.

We could simply view this resource as a tool that helps the English facilitator in the search for stimulating and authentic data to support classroom tasks. The study skills challenge is to acquire the transferable literacies required to successfully exploit this resource by: its texts (to use information) and its tools (to locate information).

5.1.4. Professional profile

The agronomist engineer trained in this unity is a professional with basic, scientific and solid education. The professional has knowledge of fundamental principles that govern the process of animal and crop production. He/she possesses an orientation toward specialization in the last study levels. The engineer when he/she concludes his/her studies, possesses scientific tools and suitable techniques in order to understand and solve with competence and efficiency the problems related to the animal and crop production. Therefore they are generating research and applied technology to the
necessities and reality of our country. The agronomist has the capacity to solve rural sector problems immersed in social production. The professional is trained to plan and manage small and huge animal and crop enterprises. He/she is able to give consultancy and to participate in the solutions into his/her sphere (Carrera de Ingeniería Agronómica, 1997:27,28).

An Agronomist needs to have an integral education, because they will produce the necessary food for the human being; and it is essential to know technologies and models of other countries, for this reason, English is the medium to acquire information to improve our production, and for improving the research related to Agronomy sciences.

5.1.5. Theoretical and practical basis for the preliminary course design

There are four main reasons advanced for taking a general ESP approach often referred to as a ‘wide angle perspective’. First, some ESL experts have expressed doubts about the possibility of identifying and thus teaching, specific varieties at all (language teachers lack the expertise and confidence to teach subject specific conventions). Second, ESP is simply too hard for students at lower levels of English proficiency who need to acquire a general English then ESP. Third, systematic analysis of tasks and texts is an extravagant indulgence in times of cut-backs. And fourth, there are generic skills and forms of language that are the same across a range of disciplines, professions or purposes (Hyland, 2002:387).

The necessity of General English is supported by Basturkmen (2005:2) who said that Specific –purpose language is based on and extends from a basic core of language; it is therefore essential for ESP learners to first have a solid foundation of the basic core.

Also Agronomy students do not have good level of English. It is the same in almost all Bolivian students. The majority of interviewees have knowledge of English with so
much lacks in all skills; it suggested that the English course has to introduce a module to teach the Foundation Course (Castro and Ramos, 2007:151, 152).

For these reasons I am going to include as the first course the Foundation course, which includes the basic linguistic and communication skills in the Agronomy department. Also other departments can include Content-based language instruction, which may have many advantages.

Content-based language instruction has gained wide acceptance in North America undergraduate institutions, especially in ESL programs. Various research studies demonstrate consistently that content-based second language teaching promotes both English language acquisition and academic success. Students receiving linked instruction perform better in language courses than those not receiving such instruction (Kasper, 1997 in Song, 2006:420).

Students enrolled in a content-based instruction reap the benefits of significant improvements in the second language considering receptive and productive skills. They also achieve comparable or even better mastery of disciplinary content than ESL students or native English speaking students not receiving content-based language instruction (Andrade and Makaafi, 2001; Babbitt, 2001; Kasper, 1994; Winter, 2004 in Song, 2006:421).

Therefore, there are many trends on ESP, and we should adapt and implement one of them according to the Needs Analysis and objectives of students and the objectives of the Agronomy department. ESP is based on real needs and objectives of the student’s specialization.

I have identified the objectives of Agronomy department in terms of English language through professionals in Agronomy and students interviews and obviously through the
curriculum of Agronomy Department. According to the curriculum the objective of agronomists is to generate research and applied technology to the necessities and reality of our country. It means the development of science, technology and research.

According to the interviews to professionals in Agronomy they need English to write reports. The first interviewee said: “English is essential for writing reports, also it is necessary for writing books and especially for research” What kind of reports do you do? “If an agronomist works with foreign funds by Non-Governmental Organization (NGO’s) we need to send reports of the projects advance and for doing it I use translators, there are many translators in the web and in the market”

The second professional interviewee said: “I went to a meeting for funds investment with NGO’s, they wanted to know about projects needed in Bolivia, but I cannot say anything because I do not Speak English, all the meeting was in English”.

The third professional said: “I was required to give a work interview in English in order to get a job in one of the most known institutions that work in food and agriculture, but I could not”.

Even students that have finished their studies had objectives in terms of English language. The first interviewee said: “All the subjects of last semester have their bibliography in English language; there is no so much bibliography in Spanish”.

The second student interviewee said: “We want English to understand software and handbooks that are written and explained in English”. And finally the third student interviewee said: “I would like to understand TV programs and movies which are in spoken English”.

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We can assure that objectives of professors/professionals and students in terms of English language is to improve both productive and receptive skills. The next two courses will improve the four skills.

According to the questionnaires and interviews to students and professionals reading and writing are needed for any undergraduate and graduate. Cariaga (2008:24) stated that in Latin America and specifically in Bolivia, the focus on reading has been successful since students need the lingua franca to read technical bibliographies which are mainly in English.

Reading on the one hand satisfies the needs of formal education and on the other, it is the skill that the learner can use in her/his immediate social context. Reading is a crucial way to acquire information (Celani, 2008:417).

Like listening is normally linked to speaking, reading, as a skill, is normally linked with writing. This is a fundamental characteristic of the target academic situation in which students are typically reading books and journals, noting, summarizing, paraphrasing and then writing projects, reports, etc. (Jordan, 1997:58, 59).

The professional success of academics is intrinsically linked to effective language use. Given the fact that English is the predominant language for research and scholarship (Swales, 1990 in Sengupta et al., 1999:S8).

5.1.6. Goal

The Bolivian public universities will develop their activities according to National plan of University development and their mission is to educate suitable professionals with high quality, academic excellence, critical conscience and the ability to create, to adapt, to transform the universal science and technology in order to foment national
development and progress; to promote the scientific research and humanistic studies; to broadcast and increase the cultural heritage; in order to contribute at the defense of the country sovereignty (Bolivian University, 2005:3).

According to the university mission, the following general goal for teaching English at tertiary level is:

- To educate students in an integral way for better performance in their future jobs and for their future post-graduate studies in order to increase the qualification of our students in Bolivia by the use of English as a lingua franca in all skills: speaking, reading, writing and listening in order to create, to adapt and to transform the universal science and technology for national development.

5.1.7. Objectives

The objective of higher education in Bolivia is to develop science, technology and innovation in order to respond to the necessities and social, cultural, economical and productive demands of the Plurinational State articulating the peoples and native indigenous countrymen nations’ knowledge and wisdom with universal ones (Estado Plurinacional de Bolivia, 2011:3).

Based on aims and objectives of Bolivian education, politics on Bolivian university, needs and objectives of students and professors of the Agronomy department and the theoretical and practical basis for the preliminary course design, the following objectives are set:

- To impel our own scientific and technological research by being informed of researches around the world supporting the research in relation to the
cosmovision and culture of the local in complement with the advances of universal science and technology.

- To improve the productivity and plant/animal production by the management of a lingua franca (English) analyzing experiences and scientific researches around the world in order to improve the food production in Bolivia.

- To acquire the survival English applying in simple situations in order to have a Basic English communication.

- To acquire the basic linguistics elements (grammar, syntax, spelling and phonetics) of English language using the language in simple situations to develop basic abilities in the four skills.

- To cope with receptive skills (reading and listening) to analyze specialized texts and different kinds of oral presentations in order to improve these skills and their knowledge.

- To use productive skills (writing and speaking) producing written texts and short talks to improve these skills and their knowledge.

- To improve their content knowledge according to their semi-specialization cycle in order to motivate them to improve their English knowledge.

- To perform verbal communication and nonverbal communication considering all the elements of good communication to convey and interpret messages and to negotiate meanings interpersonally within agronomy context.

- To know the main genres (distinctive types or categories of literary composition) in Agronomy sciences analyzing different types of texts to develop a specialized writing.

5.1.8. Syllabus

There are many experiences in English course design at tertiary level around the world. In Taiwan the best pattern was General English in the freshman year, followed by
specific elective English courses in the sophomore, junior and senior years (Chia et al., 1999:114).

Even Social countries like Cuba made changes into its medical undergraduate courses: The 2 year’s undergraduate English program was extended to 5 years. The curriculum became multi-skill and included both General English and medical English. Class sizes were reduced from 30 – 40 to 15. Because of the larger courses and the smaller class size, the number of English teacher was increased from about 150 to 500 (Maclean et al., 2000:20).

ESAP/FL (Teaching English as a Foreign Language for Specific Academic Purposes in higher education) courses in Portugal often take place early in undergraduate studies and can last from only one semester to a rare maximum of 3 years, leaving the student with no further language support until the end of the 4 year degree course (Mavor and Trayner, 2001:347).

A number of UK universities organized one year, full time EAP courses. These are typically divided into three ten-week terms. There are various approaches to the question of balance between EAP/study skills and general English. One big determining factor is the language level of the students at the beginning of the course: the lower the level, the more general English that is needed (Jordan, 1997:2).

All these experiences included General English in the first courses, and then ESP courses were included. It is another reason to include a foundation course and ESP course, because they were applied and performed good results in other countries around the world.

As you can see, there are many ESP courses around the world, but in Bolivia there is little experience in this field in higher education. For those reasons, we need to
incorporate ESP in all universities around Bolivia including both private and public universities, as a result of that; I will design preliminary ESP courses for the Agronomy department.

Cariaga (2008:120) stated that all students, in general, consider English very useful for their studies and work; most of the students of those UMSA areas (Tourism, Engineering, Aviation and Mechanics, Topography, Business Administration, Law, Biology, Medicine, Psychology, Computers and Librarianship) require at least two years of English. But for many reasons indicated before, I am going to establish a preliminary course design made up of two ESP levels, each one lasting one semester, doing one year of ESP levels, they are the following:

- Foundation Course
- English for Specific Purposes (ESP)

The Foundation course will be taught at 9th semester. It is included because the results showed a low level of English in Agronomy students, even in Agronomy professors. The level of Bolivian students is low since they were taught little English at school. It is supported by results found in students at schools in ‘El Alto’ city, who are considered as false beginners; public school students are not well prepared in English (Cariaga, 2008:45; Mamani, 2006:148).

The Foundation course has the aim of preparing students to enter mainstreams courses and is therefore pitched low, but it is not what might be called a General English course. It is as tailored to specific students needs. And it includes the basic linguistic and communication skills. And generally it is used a task based learning approach (Payne, 1986:105).

To summarize the task based learning approach of the foundation course; it is recognized that there are three dimensions to any task a student may be asked to carry
out: a physical dimension (what a student will do, e.g.: reading a book), a conceptual dimension (about what subject, e.g.: ecology) and a linguistic dimension (with what language, e.g.: the English needed to express the concepts) (Payne, 1986:105, 106).

English for Specific Purposes will be taught on the 10th semester. ESP syllabus design is restricted, also ESP course design is usually innovative, while TENOR (Teaching English for No Obvious Reason) syllabus design is essentially conservative (Sifakis, 2003:200).

There are many reasons to incorporate ESP levels at 9th and 10th semesters in the curriculum of the Agronomy department. In the interviews one student said “I have forgotten all the English that I have learnt three years ago” It indicates that if students learnt English at first semester they will forget English, because they will not use English. Another reason is that Agronomy students need up-to-date information for their thesis and it comes on English language. Also students at last semesters use specialized machines or instruments and the specifications and the use comes on English, etc.

For the syllabus of English for the Agronomy department all types of syllabi mentioned in the Theoretical framework will be considered. Content or product based syllabus includes the following models: grammatical/structural language form (based on aspects of grammar rules); notional-functional (based on conceptual meaning and communicative purposes such as space, descriptions, greetings, etc); situational (based on situations or contexts in which the English language will be used); topic (topics are selected from the students’ specialist studies and the language analyzed); and content based (the specific requirements of particular academic disciplines) (Jordan, 1997:250).

The use of content or product based syllabus will be used because it is essential to evaluate the product, I mean the English at the end of the ESP levels. Also, many topics will be extracted from the original books or original scientific articles related to
Agronomy sciences. English will be used in different situations with different functions. All are models of Content or product based syllabus.

Another type of syllabus items that will be included in the preliminary course design is the skills based ones. It is based on one or more of the four traditional language skills: receptive skills (listening and reading) and productive skills (speaking and writing) (Jordan, 1997:61, 62).

When students learn a specific language, they are learning the receptive and productive skills; so reading, speaking, writing and listening are in all languages course design implicit or explicitly. According to the content one or another skill will be focused. Also, both productive and receptive skills are objectives to be reached through the ESP levels.

And finally I include the items of the process syllabus. It includes the following models: process based syllabus (the focus is the learner and learning processes and preferences); procedural/task based syllabus (the main goal is learning by doing); and learning centered/negotiated (it focuses on the learner) (Jordan, 1997:62, 63; Pineda and Espejo, 2009:23).

I am including the process syllabus because this preliminary course design is flexible; therefore students have to suggest the content, materials, methodology, etc. I mean students are the center of this preliminary course design for the Agronomy department. Students learn by doing and it is achieved by task based-syllabus, a model of process syllabus. You can see a column for students’ suggestions and another column for the tasks on table 22 and table 23.

This combination of syllabi may be known as a ‘multi-syllabus’. Thus the syllabus can be designed and integrated into a multi-syllabus, which include all types of Syllabi to
increase the process of teaching and learning of the English language (Jordan, 1997:63; Cariaga, 2008:35).

A ‘multi-syllabus’ uses all the types of syllabus, this is the reason I am including this approach. The reasons to use all types of syllabus are described in preceding paragraphs. The syllabus of the foundation course and ESP course include columns for all types of syllabi (table 22 and table 23).
<table>
<thead>
<tr>
<th>Unit</th>
<th>Task</th>
<th>Functions</th>
<th>Structures</th>
<th>Skills work</th>
<th>Students’ suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Linguistic knowledge</td>
<td>Describing the features of English</td>
<td>Making a comparison between L1 and L2</td>
<td>It is, It has, There is, There are</td>
<td>Reading, Listening</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>2. Social English</td>
<td>Greetings and talking about yourself</td>
<td>To greet and speak of oneself and others</td>
<td>My name is, His, Her, What?, How?</td>
<td>Speaking, Listening</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>3. Survival English</td>
<td>Asking for useful information</td>
<td>Getting to places, Ordering food</td>
<td>Where is?, How many?, How much?</td>
<td>Speaking, Listening</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>4. Verbalizing data</td>
<td>To describe numbers in specialized texts</td>
<td>Reading data, Understanding tables, figures, etc</td>
<td>This, That, They have, It was, It will</td>
<td>Reading, Speaking</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>5. Use of dictionaries</td>
<td>To be a good user</td>
<td>Searching words</td>
<td>Nouns, Adjectives, etc.</td>
<td>Reading, Scanning, Skimming</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>6. Physics</td>
<td>To understand general Physics</td>
<td>Describing physical phenomena, Using units</td>
<td>The, A, An, equals</td>
<td>Reading, Writing</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>7. Chemistry</td>
<td>To understand general Chemistry</td>
<td>Describing chemical phenomena, Using units</td>
<td>It is formed, It does not, They do not</td>
<td>Reading, Writing</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>8. Biology</td>
<td>To identify life and things</td>
<td>Asking questions</td>
<td>Why?, It is not, Such as</td>
<td>Reading, Writing (short sentences)</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>9. The plants</td>
<td>To describe a real plant</td>
<td>Describing features</td>
<td>It has, They have</td>
<td>Reading, Speaking</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>10. The animals</td>
<td>To describe a real animal</td>
<td>Describing features</td>
<td>It belongs, Its</td>
<td>Reading, Speaking</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td>Unit</td>
<td>Task</td>
<td>Functions</td>
<td>Structures</td>
<td>Skills work</td>
<td>Students’ suggestions</td>
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<td>----------------------------</td>
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</tr>
<tr>
<td>1. Reading comprehension</td>
<td>To understand a specialized text</td>
<td>Summarizing</td>
<td>To conclude</td>
<td>Reading</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paraphrasing</td>
<td>Finally</td>
<td>Skimming</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Synthesizing</td>
<td>As a result</td>
<td>Scanning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inferring</td>
<td></td>
<td>Summarizing</td>
<td></td>
</tr>
<tr>
<td>2. Academic writing</td>
<td>To write a thesis profile</td>
<td>Organizing information</td>
<td>However</td>
<td>Writing</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Using language functions</td>
<td>But</td>
<td>Grammar</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Therefore</td>
<td>Linking devices</td>
<td></td>
</tr>
<tr>
<td>3. Oral presentation</td>
<td>To support the thesis profile</td>
<td>Presenting information</td>
<td>I am going</td>
<td>Speaking</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asking questions</td>
<td>I will</td>
<td>Listening</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>They were</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Engineering area</td>
<td>Doing an investigative seminar</td>
<td>Introducing a topic</td>
<td>Which?</td>
<td>Reading</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concluding</td>
<td>They have been</td>
<td>Listening</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Speaking</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>5. Plant production area</td>
<td>To do a project</td>
<td>Making inferences</td>
<td>It is derived</td>
<td>Reading</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Making mathematics</td>
<td>You can</td>
<td>Listening</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>You might</td>
<td>Speaking</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>6. Animal production area</td>
<td>To do a project</td>
<td>Describing facts</td>
<td>So</td>
<td>Reading</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To make decisions</td>
<td>Then</td>
<td>Listening</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>One, first</td>
<td>Speaking</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>7. Rural development area</td>
<td>To do a project</td>
<td>Analyzing data</td>
<td>Higher than</td>
<td>Reading</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Making inferences</td>
<td>Lower than</td>
<td>Listening</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Speaking</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>8. Agro ecology &amp; sustainable development</td>
<td>To educate in sustainable development</td>
<td>Deducing the future</td>
<td>Probably</td>
<td>Reading</td>
<td>At the end of the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Presenting the causes and effects of pollution</td>
<td>It will cause</td>
<td>Listening</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>As a consequence</td>
<td>Speaking</td>
<td></td>
</tr>
</tbody>
</table>

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5.1.9. Methodology

Many activities and strategies for learning English will be used; hence, in general terms I am going to include observation activities, intellectual activities, expression activities, manipulation activities, activities of socialization and productive activities (They are explained in Chapter II). Also as facilitators we can apply many strategies like: meaning construction strategies, expositive strategies and group work strategies. Because now learning has to be in groups in order to collaborate each other, to enhance the learning and motivation.

According to the Agronomy Area needs. I will use many techniques based on the communicative approach, structural and register analysis approach, etc. They are developed for the Foundation and ESP course. Some strategies that will be used are conferences or oral presentations, demonstration, group debates, discussion, project methods, independent work with the text book, role playing, problem solving, activated conferences, situation methods, written tasks, etc.

5.1.9.1. Foundation Course

It is known that the human being acquires the first language through the listening of sounds, words, utterances and sentences; to acquire all the sound patterns of the language then they try to imitate them emerging the speaking. For this reason the Foundation Course will focus on listening and speaking, like the natural learning. And reading and writing will be secondary.

In terms of approaches it would be useful to incorporate the communicative approach and the task-based approach. All with collaboration; that is a process through which English professors and Content professors see different aspects of a problem can
constructively explore their differences and search for solutions that go beyond their own limited version of what is possible (Barron, 2003:303).

Also, we can use the methods mentioned by Castro and Ramos (2007:217): oral presentations, project works, brainstorming, short discussions and providing a demonstration. Project works can develop both skills productive and receptive skills if it is selected in a right way, for more information you may read Jordan (1997:255).

For the Agronomy students the Foundation Course will be divided into three terms. In the first term it will be explained the English language itself, making a comparison between English and Spanish and giving the importance of the lingua franca to increase the motivation on students for learning English. Facilitators have to mention the main necessities of English for the Agronomy department, like scholarships, up-to-date information, to get international funds for projects, jobs, etc. With it students will feel that English is an essential subject into their syllabus.

In this first part a magisterial class and task based approach will be used, where students will be explained the English language and its importance. The task based approach will be to get information for scholarships, up-to-date information, postgraduate requirements, etc. where the English is the most important language nowadays. The conceptual aspect of the task is the importance of English; the linguistic aspect is the use of language items for the scholarships, jobs, etc.; and finally the physical aspect is the requirements for scholarships, job instructions, up-to-date information, etc. that is, the written texts.

In the second term students will be in contact with the language through basic and social English, every class they will listen and incorporate into their minds the English language. Then they will speak little by little the basic and Social English. Here the work will be in pairs and then into groups to acquire the basic and social English. Here the
communicative approach will be used, where the students communicate with each other; the facilitator will give patterns for greetings, asking for information, etc., then the students will practice with one classmate, and finally in groups. Facilitator will ask students, who have to answer with practice. Students have to use the language with the help of gestures, observation, examples, realia, and other activities and methods.

As you can see, there are many methods, strategies, techniques, etc. that you can use on ESP classes, focusing in one or another skill using passive or active methods. The selection depends on the context, but the most important thing is to use real material, I mean books, scientific articles, lectures, etc. related to Agronomy department. Furthermore they can be complemented with lectures of the topic.

Lectures can be more effective through the following recommendations: speak loudly and clearly... don’t go too fast; plan, prepare, structure every lecture; make it understandable (explain, emphasize, recap, repeat and summarize main points and relate to current examples and applications); watch out for reaction and feedback, invite questions and ask questions, encourage participation, involve your audience; be adequate do not try to cover everything; know your subject; keep time; look at the audience; assemble... materials to which the students won’t have easy access; don’t read from your notes; be interesting and humorous but not too much; prepare handouts (Jordan, 1997:193-195).

As facilitators, we have to read and to know real material about Agronomy department. The English facilitator needs to search authentic and up-to-date materials to teach ESP, he/she can ask the content professor. When facilitators have the material in their hands he/she needs to understand the entire topic, at least the basic things in order to give a lecture with the recommendations explained before and for doing activities with students.
Lectures will be the method for the last term of the Foundation Course. The topics of the lectures will be on the basic subjects of Agronomy sciences, like Chemistry, Physics, Biology, Plants and Animals. Facilitator will anticipate the topic for the next class and students have to read and remember the topic in their classes of Agronomy subjects; after students know the topic the facilitator will explain it in English; students can ask just in English if they do not understand and facilitator can explain by uses of other methods like realia, exemplification, etc. We have to apply the recommendations mentioned before. All the lectures should be in English language, it can be complemented with lectures on the web with topics related to the basic subjects of the Agronomy department.

As you can see, there are many methods for teaching ESP to Agronomy students, you can select one or another method according to the level of students, to the topic, etc. And nowadays new methods are emerging to teach subject content and language, for instance the Research Seminar (RS) that we can adopt and adapt to the classes of ESP.

One way to join research and class is by RS. In the RS a group of people is met to talk about a specific topic and to share achievements, successes and mistakes found in the research road. RS contributes to the development of personal qualities such as: abilities to perceive and recognize the essential, to do comparisons, to value, to arrange, to define, to found, to probe, to refuse, to conclude, to apply, to analyze, to synthesize, to include, to deduce and to identify problems.

Research Seminar is a group of people, who guided by a person they intercommunicate with each other:

a) Explaining a specific topic (The ‘relatoría’)
b) Complementing and evaluating it (the sequence)
c) Contributing among all (the discussion)
Taking out conclusions and giving new questions, all registered in the written memory (the protocol) (CEPIES, 2010:164, 165)

Listening cues are also important; into them are the Micro-markers and macro-markers. Micro-markers are lower-order markers of segmentation and intersentential connections. Macro-markers are higher-order discourse markers signaling major transitions and emphasis in the lectures.

**Listening comprehension and note-taking** and for academic speech it can be used

Short-term Target activities:
- a) Plenary lectures/group seminars (by guest lecturers)
- b) Tutor seminars
- c) Students seminars
- d) Interview/questionnaire project


Facilitators have to teach note-taking. It involves several processes: the ability to distinguish between important and less important information; deciding when to record the points; the ability to write concisely and clearly in a kind of personal shorthand which will probably make use of various devices; the ability to decipher one’s own notes at a later date and to recall the essence of the lecture (Jordan, 1997:180).

Other methods to use in the last term are debates and group discussion. Debate is a technique that with frequency is used to discuss about a specific topic. There are many ways to perform this technique. One way is to divide the course in two groups, for instance one group can agree with transgenic food and another can disagree with this kind of animal and plant production; both groups have to give their advantages and disadvantages or arguments on this topic. In this case each group will try to convince to another group with objective and scientific information. Here the facilitator will be the
guide. Some Chinese students suggested that debates should be organized as a post-reading task (CEPIES, 2009:151; Yun-Zhu, 1999:S65).

Group discussion may have some possible roles for teachers and students like: initiating, seeking information, giving information, giving opinions, elaborating, controlling, clarifying, encouraging, setting standards, harmonizing, relieving tension, coordinating, orientating, testing, consensus testing and summarizing (Jordan, 1997:10).

Debates and group discussion about topics relevant to Agronomy department will motivate students. Facilitators can bring up-to-date English material related to Agronomy and students can read it analyzing the text carefully. When students know the topic, they can discuss it by debates, group discussion, etc.; this will increase the oral ability of students.

To sum up, the third term of the Foundation Course, first we have to give seminars on basic subjects on Agronomy sciences, with it, students will be in contact with the language ever class and we have to apply other methods like realia, induction, deduction, etc. After seminar students have to participate in Research Seminars, debates and group discussion. All supported by tutoring and counseling of facilitators.

A content-linked ESL curriculum built on learning communities and supported by strong counseling and tutoring services is a model of instruction that meets the linguistics and needs at tertiary level. It enhances cross-curricular academic achievement in both language and content courses and promotes academic growth and success over time (Song, 2006:435). So we can adapt learning communities (social and academic events such as on-campus speeches, lectures by faculty or guests, etc.) and tutoring (bridges connecting students with instructors).
5.1.9.2. English for Specific Purposes

In the Foundation Course listening and speaking were the core of the course, but in the English for Specific Purposes reading and writing are the most important skills being the listening and speaking secondary. Because according to the needs analysis students and professors considered reading and speaking the most important skills for the Agronomy department.

English for Specific Purposes will be divided into two terms. The first term will focus on reading and the second one on writing. They will be based on task based approach and methods for reading comprehension.

Task based learning exploits problems of the first kind, but the purpose of the task is not to solve a problem but to be a carrier for the language items to be taught. And in problem-based learning language and knowledge are inextricably interwoven; there is no distinction between carrier content and real content (Barron, 2003:300).

For the first term students of Agronomy department will read authentic material related to Agronomy field. They need to have a comprehensive reading. Hence they will receive a text related to each of the five areas of Agronomy department. They will read it three times. The first time to get the general idea of the text; the second one to understand carefully and with detail using a dictionary, and the third one to have a clear understanding of the text without using the dictionary.

Before the third reading, students may ask about some words or sentences that are difficult to understand. The facilitator with the help of other methods like realia, exemplification, observation, etc will explain the word or words with examples of using in different contexts.
As facilitators we can apply one or more than one of many memory strategies: connecting the new word to a previous personal experience, using semantic maps, using physical action when learning a word, grouping words together within a storyline, using scales for gradable adjectives, paraphrasing the words’ meaning, studying the spelling of the word, grouping the words, connecting the word with its synonyms and antonyms, saying new word aloud when studying, imaging words’ meaning, imaging word form, context, etc. (Atay and Ozbulgan, 2007:46).

After the third reading students will answer questions related to the text; the questions will be of true/false type, complete with the right word type, matching one column with another column type and multiple choice types. Because the goal of this term is to understand the text. And also we may add the reading skills mentioned in the following paragraph because it showed improvements in the comprehensive reading of students.

Pritchard and Nasr (2004:428) used the following reading skills: understanding the gist of a text (skimming); locating specific information (scanning); understanding explicit and implicit information stated in a text; understanding information from figures, diagrams and tables; understanding imperative and instructional language; understanding referents; recognizing synonyms in similar contexts; inferring meaning by prefixes, suffixes and word families; recognizing and understanding nominal compounds and summarizing and drawing conclusions about a text.

The strategies mentioned before can be complemented with the Reading comprehension strategies. This method of reciprocal teaching teaches students in small groups: a) questioning the meaning of a text; b) summarizing a text; c) predicting what the text will state in the next “few” pages and d) clarifying confusing text. Questioning a text’s meaning generally encourages students to elaborate on authors’ messages by retrieving and activating students’ background knowledge by the question why is this true? (Smith et al., 2010:365).
In all classes students need to learn new words because a language is the addition of both vocabulary and the grammar. For this reason, students will get out unknown words of all the texts giving the meaning of them and giving examples of use in different contexts.

Vocabulary is essential for learning a language. ‘Vocabulary knowledge is the single most important area of second language competence’. Hence as facilitators we can adopt and adapt many memory strategies, because they are found to facilitate second/foreign language vocabulary learning and recall. Successful vocabulary learners were found to be active strategy users who were conscious of their learning and took steps to regulate it, whereas poor learners displayed little awareness of how to learn new words. But what memory strategy can we use? It depends on the student’s proficiency level, their motivation, their purposes in learning the L2, the texts and tasks being used, etc. (Atay and Ozbulgan, 2007:40; Jordan, 1997:153).

Nowadays there are more active strategies that can be applied to the ESP classes, for instance specialists on ESP are using the metacognitive strategies. But what does it mean? The metacognition is the knowledge about our own knowledge processes, I mean the consciousness of the people of their own cognition and how it functions?

Poor readers read all types of texts in the same manner. Good readers use metacognitive strategies. It has two components: first, knowledge of cognition (what strategy, when and how); second, regulation of cognition (monitoring, planning and transferring processes) (Dhieb-Henia, 2003:391).

“The metacognitive strategies were of high value for students who receive this training. The study confirms the usefulness of training advanced level ESP students in a variety of reading styles so as to empower them with the flexibility required to operate under various real-life constraints” (Dhieb-Henia, 2003:411). The experimental course was:
Table 24. Summary of the training program using the metacognitive strategy

<table>
<thead>
<tr>
<th>Part</th>
<th>Schedule</th>
<th>Focus of unit</th>
<th>Capacity developed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I: Genre sensitization (15 h)</td>
<td>Week 1</td>
<td>The genre and macrostructure of research articles</td>
<td>Declarative knowledge of research articles</td>
</tr>
<tr>
<td></td>
<td>Week 2</td>
<td>Titles: Nominal construction</td>
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<td></td>
<td>Week 3</td>
<td>Abstracts: Personal and impersonal forms</td>
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<td></td>
<td>Week 4</td>
<td>Introductions: The CARS model</td>
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<td></td>
<td>Week 5</td>
<td>Results: The relationship between the verbal and non-verbal information (tables, figures, etc.)</td>
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<tr>
<td></td>
<td>Week 6</td>
<td>Discussion: The macrostructure of argumentative expository texts</td>
<td></td>
</tr>
<tr>
<td>Part II: Strategy training (15 h)</td>
<td>Week 7</td>
<td>Expeditious reading (skimming and search reading)</td>
<td>Procedural knowledge of SRAs</td>
</tr>
<tr>
<td></td>
<td>Week 8</td>
<td>Scanning</td>
<td></td>
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<td></td>
<td>Week 9</td>
<td>Careful reading (identify text macrostructure)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Week 10</td>
<td>Revision of different reading styles</td>
<td></td>
</tr>
</tbody>
</table>

(From Dhieb-Henia, 2003:412).

This methodology can be adapted to the context of Agronomy department and all departments at university level, using scientific articles related to Agronomy department, where you may find other genres. The adaptation process is vital to the success of any course design. It is developed in more detail in the final remarks.

In the second term the ESP course will give texts to the students like the first time. The first reading to have a general idea, the second one to discover the meaning of words
with the dictionary and the third one to have a clear understanding without using a dictionary. All the process with the collaboration of the facilitator.

After the reading process, students will summarize, synthesize and comment about the specialized text with the help of a bilingual and monolingual dictionary. This process will be graded from sentences to paragraphs up to texts using appropriate connectors where writing skills will be practiced.

For the writing skill it can be used a strategy implemented by Kuteeva (2011:48). Here the students wrote a paragraph, then posted on the wiki page for collaborative writing and editing of texts. Another major task to be carried out on the wiki concerned the writing of an argumentative essay, it could be for each student, then peer review and finally discussion pages. They have to be contextualized.

A method that can use both skills reading and writing is Information problem solving. It can have six stages: a) Task definition; b) information seeking strategies; c) location and access; d) use of information; e) synthesis and f) evaluation (Sliaouti, 2002:105).

There are other methods for developing reading and writing skills, such as: Projects at the end of the course, essays, comprehension strategies, problem solution, etc. I can suggest for a final work for Agronomy students to present their thesis profile or researches projects in English, because they are in the last semester (tenth semester).

According to one interviewee, he needed to give the main projects needed for his region, but he could not. Hence we can adapt the methodology implemented by Shi, et al. (2001:281-284) for English meetings to get funds for projects related to Agronomy sciences. This methodology includes three strings: Illustration and recognition (short segments of video recording and tape transcripts to focus students’ attention), development (to provide opportunities for the students to practice functions that they
should by now have recognized as being significant and problematic) and role-play and simulation (to provide students with opportunities to rehearse the full range of language and cognitive functions in an uncontrolled context).

As you have seen there are many methods, techniques, etc. that you can use to achieve the objectives of the course. You can use the preceding methods and other methods such as realia, didactic video, oral presentations, short discussions, seminars, communicative activities such as describe and draw and pyramid discussion (discussion in pairs, small groups and with the whole class), etc.

In this context, the facilitator has to be a researcher, it will be discussed in the final remarks, and therefore according to the specific context the facilitator adopts and adapts methods. If students cannot understand anything of English, the facilitator has to apply the grammar-translation method, if they know something; he/she can apply communicative method or direct method. It means a combination of passive and active methods; this method is called the eclectic method.

Finally I can say that it is much better to use an eclectic methodology, selecting and using one of the strategies, activities, methods and approaches mentioned above or others; the facilitator has to adopt and to adapt many methodologies in order to improve the learning-teaching process using an eclectic methodology.

5.1.10. Materials

The Result section showed a diversity of materials being the most frequent audiovisuals, specialized texts, English textbook and specialized scientific articles. It indicates that students need real/authentic materials for English learning.
Facilitators have to construct materials according to the real needs of undergraduate students. It can be achieved by many ways like knowing the academic vocabulary in a specific field. Vocabulary has four sub-areas: high frequency words, academic vocabulary, technical vocabulary and low frequency words. The high frequency words and the academic words have been collected into word lists and are considered useful for materials development (Martínez et al., 2009:185).

It would be interesting to teach Agronomy’ students specialized vocabulary through different methods, for instance the ‘realia’ would be very useful, showing a plant and naming the different parts of the plant. Technical vocabulary is very important, so to teach names of plants we can use the scientific name of the species; e.g. *Solanum tuberosum* is the potato, *Oryza sativa* is the rice, etc.

Martínez et al. (2009:189) found the following most frequent academic words in Agro-corpus research: significant, analysis, data, site, area, variation, response, similar, sequence and environment. We may use these words and other words specified in the research of Martínez et al. (2009:189) in order to construct contextualized materials for Agronomy students.

Hutchinson and Waters (in Jordan, 1997:259, 260) consider that good materials contain: interesting texts; enjoyable activities which engage the learners’ thinking capacities; opportunities for learners to use their existing knowledge and skills; content which both learner an teachers can cope with. Then they present a model for writing materials which consists of four elements: input, content focus, language focus and task.

It is worthwhile to use many materials in the process of learning-teaching; In general, they can be classified into didactic materials, audio-visual materials and bibliographic materials.
They have to be authentic. Content professors will select the most important topics in relation to the area of specialization of the Agronomy’s students. To select the appropriate materials, if the English facilitator does not know about Agronomy sciences, he/she has to be in communication and collaboration with other Agronomy professors. All materials like books, scientific articles, audiovisual, lectures on the web, conferences, realia, etc. will be divided in the following semi-specialization areas:

a) Engineering area  
b) Plant production area  
c) Animal production area  
d) Rural development area  
e) Agroecology and sustainable development area  
f) General area

In each area real objects can be used for describing and guessing about the object. One student has to describe the main characteristics of a plant (object) and another student has to identify it. It may be useful for facilitators to explain objects related to Agronomy sciences like instruments, plants, animals, etc.

Other materials to include into the course are:

a) Videos  
b) Short seminars  
c) Short lectures  
d) Tape recordings  
e) Business meetings  
f) Etc.

All of this real/authentic means can be found in the web. Therefore to find them it is necessary to have a laboratory with computers with higher capacity than “Pentium IV” and with connection to the internet. It is not a problem, because all departments of the
“UMSA” have “hi-fi”. Another advantage in Agronomy department is that they possess a laboratory with enough computers for the last semester courses.

The listening skill is obviously vital to communicative performance and has been charged with having a key role in SLA (Second language acquisition) as it gives a channel for input. Multimedia fits well into moves to make learners more autonomous and it develops listening skills (Rost, 1990 in Brett, 2000:273).

Multimedia might provide an environment rich in opportunities for learners to negotiate their comprehension. It can deliver learner-controlled video with tasks to be complemented while watching. Feedback on tasks success may be presented instantaneously. The provision of written subtitles should help to ameliorate any problems of decoding fast, authentic streams of speech, the limits for elements to include is infinite (Brett, 2000:271).

The materials for using in the ESP course are without limits. We can use texts with different genres; for instance in Agronomy department are used more frequently the following genres: Scientific articles, textbooks, technical reports and scientific reports.

A researcher found that students interviewed immediately after an EAP genre-based reading course reported paying greater attention to rhetorical features in texts than before the course, and also they improved their confidence and speed. Also that knowledge gained through explicit instruction can be remembered by ESP students more specifically by EAP students over an extend period of time and facilitate aspects of L2 reading and writing (Hyon, 2001:434). This researcher used the following materials and features.
Table 25. The course genres implemented by Hyon (2001:421)

<table>
<thead>
<tr>
<th>Genre</th>
<th>Hard news</th>
<th>Feature article</th>
<th>Textbook</th>
<th>Research article</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>Recent events of some importance or interest</td>
<td>Various factors involved in a large current issue</td>
<td>Concepts in a particular field</td>
<td>A new scientific research carried out by the author(s)</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Inverted pyramid structure (information presented in descending order of importance)</td>
<td>1. Anecdotal lead 2. Connection of anecdote to larger issue 3. Discussion of various factors involved in the issue</td>
<td>Cyclical patterns for presenting concepts</td>
<td>1. Introduction a) establishing research area importance b) indicating a gap c) filling the gap 2. Method 3. Results 4. Discussion</td>
</tr>
<tr>
<td><strong>Language style</strong></td>
<td>“Objective”: writer attributes opinions to other sources using quotations and citations; balanced with dramatic and emotional language</td>
<td>Subjective: writer may express opinion to appeal to readers’ emotions and to offer an interpretation of the issue</td>
<td>Sure and authoritative: characterized by lack of hedging and lack of reference to evidence or controversy</td>
<td>Cautious: characterized by hedging and reference to experimental evidence</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>To report newsworthy events in the most efficient and objective way</td>
<td>To draw readers into the whole article; to entertain readers and offer an interpretation of the issue</td>
<td>To present the “facts” of a particular field in a patterned manner</td>
<td>To present an interpretation of a timely research</td>
</tr>
</tbody>
</table>
Another material using collaborative learning supported by social web applications, would be the wikis, they may contribute to creating a more natural reader-oriented environment for developing effective and transferable writing skills such as audience awareness. Because the wiki software allows any reader to edit or comment on the text. Most wiki engines are open source such as: wikis paces, Pm wiki, Twiki and the Wikipedia engine, Media Wiki (Kuteeva, 2011:45, 46).

Also, we can use Learner diaries; they can be used as a manner to get insights into students’ learning experiences, as they are based on introspection. They need to be written in English in all ESP classes. They can inform about items that students enjoyed, found difficult, did not understand, teacher performance, external factors affecting study, etc (Jordan, 1997:34, 35).

Finally, I can say that materials are the most important way to be in contact with real/authentic language. So as facilitators and course designers we have to use and combine the appropriate materials for our learners and to the context; all the materials described before can enhance the motivation to the learning of the receptive and productive skills stated into the objectives.

5.1.11. Evaluation

The course design takes into account curricular contents; it implies evaluation of conceptual, procedural and attitudinal contents. Also it is crucial to implement the three techniques and instruments of evaluation: Informal evaluation techniques (Observation of activities and exploration through questions), Semi-formal evaluation techniques (works and exercises that students carry out inside the classroom, tasks and works that students carry out outside the classroom and evaluation of ‘portafolios’), and Formal evaluation techniques (objective assessment, oral examination, execution assessment, etc.).
Because the evaluation has to be integral and to include students with all different learning styles. Australia (1988) in Cariaga (2008:50) stated four learning styles: the concrete learners, the analytical learners, the communicative learners and the authority-oriented learners. The Agronomy students can have one or another learning style, so they need to be included in the learning-teaching process through different tasks, evaluation, projects, etc.

The projects in the six areas of specialization in the Agronomy department will be evaluated through the four skills using observation, the project itself and with oral examinations. The project itself will be an indicator of writing skills and the oral presentation for speaking skill. Listening and reading are included because they have to answer to questions and to read a lot in order to do the project.

For the receptive skills students have to read specialized texts of whatever specialization areas for a specific time and then he/she will answer questions related to this text, here will be evaluated both content and language skills. Students will listen to specialized lectures and conferences and then they will answer questions related to this short speech.

For the productive skills students have to write a thesis profile, projects, essays, summaries, comments, etc. of a topic related to the specialization areas in the Agronomy department which is of most interest for the student. Speaking production will be evaluated through short discussion, debates, explanation of the project, thesis profile and so on.

It is essential to mention that the evaluation mentioned before have to be applied in all the classes, it means each class is related with an evaluation leaving the summative evaluation.
To conclude the English area, I can assure that almost all educational institutions, it means: schools, teacher training schools, universities and institutes, are focusing on summative evaluation. With this Agronomy course design I would like to leave the summative evaluation because it divides any course in two periods: exams period and classes period; the evaluation has to be continuous, the evaluation has to be applied in all the classes, and it means each class is related with an evaluation leaving the summative evaluation. Hence the present course design will focus on: Diagnostic evaluation and formative evaluation.

5.2. Final remarks

5.2.1. Research

A great amount of everyday teaching and dealing with learning problems is ad hoc and based on intuition, common sense, experience and trial and error. To some extent, this will always be so; one cannot anticipate every possible contingency. Put formally, research is “a systematic process of inquiry consisting of three elements or components (1) a question, problem or hypothesis, (2) data and (3) analysis and interpretation of data”. (Nunan, 1992 in Jordan, 1997:274).

Why do research? For some facilitators in universities, the answer may well be that they are expected to as part of their contract of employment and that it is essential for promotion. Some facilitators have experienced difficulties in their teaching, or observed that students have particular problems and they try to find the possible solutions (Jordan, 1997:274).

In the class there are many problems that facilitators have to confront. In a class of Agronomy department many students did not understand how to do calculations of
fertilizers, so the mission of the professor was to search a new method for teaching but he did not do it. Here we can see a problem and it needs to be solved through research.

ESP is, in essence, research-based language education. The success of this marriage of theory and practice has been achieved because of clear emphasis on the idea of Specificity. It has also meant the development of both ethnographic and text analytic research methods to help us get what is going on in specific contexts (Hyland, 2002:386).

With the previous paragraphs one should understand the importance of research in English for Specific Purposes (ESP). The preliminary course design presented has to be improved just by the research in the process of learning-teaching. To do research facilitators can apply mainly the action research which main objective is to improve the educative process through improvement of methods, materials, evaluation, pedagogy and so on (Hyland, 2002:385).

The term research is also understood from the point of view of the specific field. There is a rapid decline in recent years of publication in Spanish-language journals- from 5309 articles in 1996 to 2744 in 2006 and a correspondingly substantial increase in English language publications in international journals-from 19820 papers in 1996 to 39115 in 2006 (COTEC, 2008 in Pérez-Llantada et al., 2011:19).

The Spanish academic reward system confers greater recognition on international as opposed to national level publications. Spanish scholars seeking academic recognition are forced to publish in English or perish; because one of the most important criteria for academic promotion is publication in indexed journals. A secondary factor on the increase of English publications is the growing internationalization of teaching and research in Spanish universities, leading to increased academic exchange and collaboration between Spanish and overseas academics (Pérez-Llantada et al., 2011:20).
Bolivian researchers are invisible internationally, because there are few researches translated into English language; if you search recognized scientific researches on the web you will not find Bolivian researchers or maybe few researchers because one of the requirements to be published on international journals is the English language.

Pérez-Llantada et al. (2011:25) made interviews to know how Spanish researches cope with English. Scholar #9 complained about the quality of many translation services, implicitly suggesting that the ideal situation is to resort to a language professional who specializes in academic writing and is an expert in the disciplinary field.

As you can see, English is the language of science and research. Bolivia is not known at an international level in terms of research, therefore is essential to incorporate specialized courses for papers writing in English to achieve the main basis, goals and objectives of Bolivian education that is science, technology and research.

5.2.2. Curriculum process

It is the group of integrated and interrelated actions of different demands presented in the curricular construction. These demands are located in specific moments in the process of curriculum operativization (Gutiérrez, 2006:34).

This curriculum process is done in order to achieve the general goals of Bolivian education and they answer the specific multiple necessities in the various students’ development level, their abilities and cultural, social and economic demands of the society which have to be covered by the curriculum. The curriculum process possesses four moments:
   a) Curriculum design
   b) Curriculum implementation
   c) Curriculum execution
d) Curriculum evaluation
(Gutiérrez, 2006:34-36).

The present work has been made on the first moment of the curriculum process, the curriculum design. It has to be implemented, executed and evaluated not only in the Agronomy department but in the whole tertiary education in Bolivia, doing some changes according to different departments of universities.

An ESP approach has to be designed, implemented, executed and evaluated to improve our education. “Small groups of facilitators and Edinburgh scholars convinced of the relevance and value of an ESP approach through the experiential workshops/courses”. The movement into ESP is having its effects on the undergraduate curriculum in Cuba (Maclean et al., 2000:27).

As in Cuba and other parts of the world all specialized people on ESP with professors at tertiary level need to build a curriculum on ESP for all departments at higher education to improve the quality of our professionals through research, science and technology.

5.2.3. A flexible curriculum

It is a kind of curriculum. The whole curriculum proposed in this research for the Agronomy department (tertiary level) is in terms of flexible and open curriculum. It is a basic curriculum with minimum and essential contents. It permits the creativity of professors, modification and enlargement in accordance with the context; it is developed by course designers and facilitators; it is centered in formative evaluation; you can apply qualitative and ethnographic research; the professor is critical and reflexive and facilitates the significant learning (Gutiérrez, 2006:32).
“I realized that the syllabus have to remain flexible. It could be supplemented by a variety of existing authentic material and relevant topic based activities such as role plays”. An effective and flexible ESP course design can be derived from the facilitators own practical experiential knowledge and from the students themselves (Edwards, 2000:293).

All the things are continuously changing; we are living in a globalized world; so ESP curriculum has to be in accordance with these changes and obviously according to the context. For this reason the preliminary curriculum proposed is flexible to the time and space of application.

Constructivism dissolves dualities and differences, but it requires ontological flexibility so that the negotiating parties can move towards each other through interaction and interpretation. It is also important to remain flexible once the course has been developed and the materials and methods selected (Bosher and Smalkoski, 2002:75; Barron, 2003:302).

Researchers mentioned the importance of flexible curriculum. The curriculum has to change with the time, to be contextualized, not rigid. So that, I propose a flexible and open curriculum for the preliminary course design of the Agronomy department. The curriculum has to change according to the science and technology development.

5.2.4. Sustainability of ESP projects

I would like to mention two cases on ESP projects at worldwide level. The first one was done in Brazil with a period of 25 years of implementation and execution (1980 - 2005). The project was sustainable in the period of 25 years being the crucial decisions for the project design the following:
a) No central or national textbook would be produced (professional development of ESP facilitators as course designers materials writers; the focus of the project had changed from product based to process based). A textbook for the department of Agronomy has to be implemented, considering the context and needs analysis of the Agronomy department.

b) No ready-made 'imported' methodology would be used (it was done a national Needs Analysis). With this research a Needs Analysis was done on students and professors of the Agronomy department considering the needs and objectives of students and professors.

c) Materials production would be based on local resources (the topics had to be of interest to the students and accessible to them of ideas and background knowledge). Materials described on the preliminary course design were of the six specialization area of the Agronomy department; authentic material can be downloaded by anyone who wants to learn up-to-date information.

d) No one-to-one counterparts would be identified or trained (one-to-one counterparts were not needed because there was a critical mass of active participants or local ESP professionals and on-going program of facilitator development). It is essential to create post-graduate courses on ESP in La Paz city, because there are not specialized centers on ESP, as a consequence of that, there is a lack of professionals on ESP who can improve and implement ESP courses.

e) A centre of communication or an ESP hub would be established (central point of contact and exchange among facilitators). Even professors of the Agronomy department do not exchange information of the process of teaching-learning. So for ESP courses it is necessary to implement a center of communication and interchange among facilitators.

f) The project would be open to the admission of other institutions and people (the variety and diversity of institutions within the project is crucial which has strengthened it and enabled it to promote a richer exchange of experience).
Agronomy department has many institutions related to researches, in one of them can be established an ESP project for the Agronomy department to do contacts with NGO’s, governmental institutions, etc. to share the results to other departments at tertiary level.


g) There would be no anxiety to obtain central support at the Ministry of Education (it adopted a broad-based support avoiding the huge political changes in Brazil that can affect the project). The political issues have to be divorced from ESP courses. The agronomy department is autonomous like the public university, so the ESP courses need to be established institutionally.

They had used a fairly consistent methodology based on local knowledge needs and approaches. It immediately established the ‘ownership’ of the project. It is needed to use the ‘synergy’ between local and universal approaches to ESP methodology and project design (Holmes and Celani, 2006:112-116).

The second case belongs to Tunisia. They have Arabic as their first language, French is the second and English is the third language. The 1998 Reform generalized the teaching of English at the undergraduate level in all higher education institutions. The authors made a comparison between Brazil and Tunisia cases being the results:

a) Like in Brazil reading was the priority
b) Local materials for local needs: in Tunisia very few ESP teams coordinated their work, the process was not good because low level of facilitators.
c) Local methodology: in Tunisia most ESP teachers have been using commercial textbooks, methods.
d) Use of local resources: ESP in Tunisia has been, ever since its introduction, homeless. There are low own textbooks, audiovisual materials, etc.
e) A critical mass of local ESP professionals: It has not been met. Some professionals on ESP are not working as ESP or EAP teachers but teach linguistics to English language specialist.

f) Involvement of several institutions: Tunisia does not rely on highly-qualified graduates. In under-resourced countries, ESP projects may not be a priority, so it will be difficult to find easily funds for ESP project.

g) Assistance to promote ESP campus prestige: the fact that most ESP practitioners are initially secondary school teachers recruited to teach at tertiary level does not enhance the campus prestige of the discipline and its staff.

h) An ESP hub: the Tunisian ESP centre has become part of one institution, so the centre lost its national status. (Labassi, 2010:23-26).

I have mentioned some recommendations to maintain sustainability on ESP curriculum. If Bolivia wants to incorporate ESP in all tertiary education, it needs to consider the experiences done in Brazil and Tunisia mentioned in preceding paragraphs.

According to the experiences in Brazil and Tunisia I suggest the following aspects to maintain sustainability at tertiary level in Bolivia:

a) We have to adopt and to adapt books to our reality and context. Each department of the university has their own necessities and objectives.

b) There is a need to do a Needs Analysis in all departments to know the methodology to apply, to review the curriculum of the higher education and to determine the objectives and profiles of our professionals.

c) Libraries at universities have to change the bibliography, because they are antiquated, we need the newest bibliography and they are in the English language. It will motivate the students to learn English to read up-to-date information.
d) Professionals on ESP are needed. There are few expertises on ESP in Bolivia. We have to specialize our human resources with postgraduate courses.

e) To create an ESP centre in the Linguistics and languages Departments in all universities to communicate the failures and success in the process of learning and teaching.

f) ESP needs to be a state policy; the change of governments and politicians should not affect the ESP institutions. And it needs to receive the support of various institutions and international funds.

g) To increase researches centers in all departments to solve problems in our country and to increase publications at international level.

h) To regulate the incorporation of references in English language, at least 10 references in English must be required for thesis and other works to get the ‘Licenciatura degree’.

i) To increase scholarships through the national government where the main requirement should be to know the English language.
CHAPTER VI: CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

The most important language nowadays in the Department of Agronomy is the English language, because frequently students and professors answered that English is the most important language nowadays. These good attitudes towards the English language were reinforced since two of ten liked to have the English language as L1 in students’ descendants and four of ten preferred to have English as L1 in professors’ descendants. Students and Agronomy professors sometimes would like to have the English language as a second language (L2) in their descendants.

Usually regular students had a favorable attitude towards the English language. The Agronomy professors always had positive attitudes towards the English language. Those results found in this study in terms of Likert scale were confirmed with the descriptive statistics; regular students got an average of 20.68 over 25 with a standard deviation of 3.55 and Agronomy professors a mean value of 22.10 over 25 with a standard deviation of 2.73. These values indicated a positive/favorable attitude towards the English language because the Likert scale goes from 5 (totally unfavorable attitude) to 25 (totally favorable attitude). With these results, I could confirm the hypothesis stated: “Professors and students of the Agronomy Department have positive attitudes towards the English language”.

Most of the students did not have a good level of English, because frequently they had basic knowledge of the English language. Professors are more prepared in the English language than students, because they occasionally had a basic knowledge of English. But in general, students and even professors are beginners because of the results found in the questionnaire. And the main problems identified in their English learning were speaking and grammar; students rarely had problems with listening and writing. The
Agronomy professors identified grammar and conversation as the main problematic items.

Both students and professors needed to learn the English language to study, go abroad, jobs and scholarships. Occasionally, students liked to learn English to understand specialized texts, but professors gave to this question more importance than students, because often professors needed English in order to understand specialized texts. More than the half of students considered speaking as the most important skill for Agronomy department. But professors who had worked in Agronomy stated that reading and speaking were the most important skills for the Agronomy department.

Almost the half of students thought that is necessary more than three semesters for learning English language. Agronomy professors coincided with students. Six out ten students stated that 3 hours per week of English classes are enough and frequently Agronomy professors agreed with students. The cause of these results is that students have 3 hours per week of their content subjects. If we speak of teachers, the Agronomy students preferred to have an English professional as facilitator with agro-specialization reaching a mean frequency of 46%. It means that the ESP facilitator must know both the English language and issues of Agronomy sciences. For the foundation course the facilitator can be an English teacher but for the ESP the facilitator needs to have knowledge of Agronomy sciences, because the topics are specialized.

Both professors and students of the Department of Agronomy would like to have a diversity of activities in order to learn the English language; for instance grammar exercises debates, facilitator explanations, reading, translations, record listening, text production, etc. Students and professors learn English through many strategies such as practice, reading, speaking, listening, translations and so on. The strategies have to be applied according to the context and level of students. They are related to the learning style of students. These activities and tasks have to be in groups, because sometimes
students and professors would like to work in groups. A good way to work in groups is through tasks; this is the reason why I included it in the syllabus of the Agronomy Department. In groups students can be in a collaborative environment. Both the Foundation course and the ESP course take into account the work in groups and pairs.

Both students and professors preferred to use a great deal of materials such as: audiovisuals, English textbook, specialized texts in relation with agronomy sciences, scientific articles, World Wide Web, realia, etc. To motivate them it is necessary to include materials for the six areas of specialization in the Agronomy Department: Engineering area, Plant production area, Animal production area, rural development area, Agroecology and sustainable development area and the combined area.

Oral examinations are preferred to written examinations for students and professors of the Agronomy Department. Professors rarely preferred written examination. It means that students and professors want to improve aural skills which imply speaking and listening skills. But the evaluation will be integral including both skills productive and receptive skills. Both students and professors agreed with continuous evaluation that is known technically as formative evaluation, for these reasons, I have focused on diagnostic and formative evaluation.

The needs analysis, educational goals and objectives of the Agronomy department demonstrated that the Agronomy Department has necessities and objectives in terms of ESP; it confirms the hypothesis stated in the present research and I accept the hypothesis: “Students and professors have needs and objectives in terms of ESP (English for Specific Purposes) course design”.

There is a crucial necessity to incorporate English area in the whole tertiary level in the nine regions of Bolivia in order to accomplish with the objectives, goals, needs and
wants of regular and higher education. I mean to include an ESP curriculum for all departments at higher education level in public and private institutions. According to the results and the bibliography, the English course should have at least four semesters. To improve the English language learning it should be included in the last semesters of each department at tertiary level. In the case of Agronomy Department two semesters are incorporated in the semi-specialization cycle, that is, in the ninth and tenth semester.

The general goal of the proposed preliminary curriculum design is: To educate students in an integral way for better performance in their future jobs and for their future post-graduate studies in order to increase the qualification of our students in Bolivia by the use of English as a lingua franca in all skills: speaking, reading, writing and listening in order to create, to adapt and to transform the universal science and technology for national development. The preliminary course design for the Agronomy department is incorporating two courses for the English area with the following subjects or modules: Foundation Course (ninth semester) and English for Specific Purposes (ESP) (tenth semester). Each one with duration of one semester; they will be given in the semi-specialization cycle.

The combination of different methods (communicative approach, task-based approach, project works, research seminar, problem-based learning language and knowledge, etc.) is called eclectic method, which will be used in the preliminary course design for the Agronomy department. In terms of materials for the course design we have to use: Didactic materials, audio-visual materials and bibliographic materials. The tasks to be performed in the ESP course would be the pedagogic tasks (to get information for scholarships, to do a summary, research seminars, answering questions, etc) and the real world tasks (to fill an application, a scholarship form, to understand specialized texts, etc.).
According to the results and new educational theories, the evaluation in the present preliminary Course Design will be based on diagnostic evaluation at the beginning of the module or semester and a formative evaluation, there should be a continuous evaluation in each class. The evaluation will value the four skills: listening, speaking, reading and writing; by the application of oral and written examination, by the composition of texts and analysis of specialized text.

6.2. Recommendations

In this research, I applied a preliminary and flexible ESP course design to all tertiary education in Bolivia, including both private and public universities; as a consequence of that, I suggested a curricular design on English for Specific Purposes at higher education level with the case study of the Agronomy Department. But the main problem in higher education is the academic hours dedicated to ESP, in public universities it only has one or two semesters; to solve this problem the facilitators have to adapt all the modules of English area proposed here to one or two semesters. Other aspects to consider on ESP curricular design are:

The curriculum of any Department needs to be flexible; it indicates that content professors, English professors, students, specialists on ESP, etc. need to make changes in the curriculum with the objectives to improve the process of learning-teaching. The ESP curriculum needs to change according to changes of technology and science.

There are few courses as post-graduate training for ESP English facilitators, especially in La Paz region; as a result of that, the majority of ESP English facilitators has low level for teaching ESP to the whole Departments at tertiary level. It is necessary to implement ESP courses for graduate students of Linguistics and languages Department of Bolivian universities.
The research, intra-cultural and inter-cultural education and technologies of information and communication need to be common in all Departments at higher education level. They are the common and dynamic axes of the present preliminary Course design for the Department of Agronomy.

ESP is dynamic, so facilitators need to apply their ability to do research into the classroom in order to redesign materials, methodologies, means, tasks, evaluation, etc. One of the most used types of research could be ‘Action Research’.

If the English facilitator is not a specialist in the students’ field, like Agronomy topics, he/she should work with the assistance of professors or specialists of the Agronomy department doing an inter-disciplinary job to get real materials and to enhance the motivation of students.

ESP at tertiary level ought to be sustainable, in order to accomplish it, I can suggest the recommendations done by Holmes and Celani (2006): No central or national textbook would be produced; no ready-made ‘imported’ methodology would be used, because they are not tested to our conditions and they were done in other contexts with other students; materials production would be based on local resources; no one-to-one counterparts would be identified or trained; a centre of communication or an ESP hub would be established; the project must be open to the admission of other institutions; and there would be no anxiety to obtain central support at the Ministry of Education.

Finally, I have observed in the Agronomy professors some failures of English language knowledge. So an ESP for the fourth education level may be implemented, I mean to adopt an ESP course for Postgraduate students, because they need the English language to do their M.Sc. and Ph.D. thesis with the last references. With them we can adopt the ESP course, specially the reading and writing skills to send their scientific articles to indexed journals in order to get a M.Sc., Ph.D. and post-Ph.D diplomas.
REFERENCES


Mamani, F. (2010). Design of an EAP Course centered on the communicative Language Teaching. CLT methodology Project addressed to the staff of lectures at San Francisco de Asis University. Trabajo Dirigido. La Paz – Bolivia, UMSA – Facultad de Humanidades y Ciencias de la Educación. 49 p.


Pineda, J., and Espejo, L. (2009). Syllabus design, regarding interactive and audiovisual educative software developed according to the students’
necessities as supporting material, to teach basic English to children and teenagers of the “Jilañataki Project of Fundación La Paz”. Trabajo Dirigido. La Paz – Bolivia, UMSA – Facultad de Humanidades y Ciencias de la Educación. 217 p.


APPENDICES
## APPENDIX I: UMSA’s DEPARTMENTS WITH ENGLISH INTO THEIR SYLLABUSES

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<th>DEPARTMENT</th>
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APPENDIX II: QUESTIONNAIRE

CUESTIONARIO

DATOS GENERALES

Nº de encuesta: 

GÉNERO: Masculino ☐ Femenino ☐

Nº de componentes en tu familia: __________________________ Edad: __________________________

Clase Social con la que te identificas: Alta ☐ Media ☐ Baja ☐ Estado Civil: __________________________

Zona y ciudad donde vives: ______________________________________________________________

Buenos días (tardes):

Quisiéramos pedir tu ayuda para que contestes algunas preguntas que no llevarán mucho tiempo. Tus respuestas serán confidenciales y anónimas. De antemano agradecemos tu valiosa colaboración.

I. MARCA CON UNA “X” O ESPECIFICA LA RESPUESTA A CADA UNA DE LAS SIGUIENTES PREGUNTAS

1. ¿Cuál es tu lengua madre (Primera lengua que aprendiste y manejas)?
   a) Aymara ☐ b) Castellano ☐ c) Inglés ☐ d) Quechua ☐ e) Otro_______________

2. Además de tu lengua madre, ¿qué otras lenguas conoces?

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<td>Avanzado</td>
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   b) Aymara ☐ c) Castellano ☐ d) Inglés ☐ e) Quechua ☐

3. ¿Cuál consideras que es el idioma más importante en la actualidad?
   a) Aymara ☐ b) Castellano ☐ c) Inglés ☐ d) Quechua ☐ e) Otro_______________

4. ¿Cuál idioma quisieras para tus hijos como primera lengua?
   a) Aymara ☐ b) Castellano ☐ c) Inglés ☐ d) Quechua ☐ e) Otro_______________

5. ¿Cuál idioma quisieras para tus hijos como segunda lengua?
   a) Aymara ☐ b) Castellano ☐ c) Inglés ☐ d) Quechua ☐ e) Otro_______________

6. El inglés es una materia que debe incluirse en la malla curricular de la carrera (Agronomía).
   Totalmente de acuerdo ☐ De acuerdo ☐ Neutral ☐ En desacuerdo ☐ Totalmente en desacuerdo ☐

7. El idioma más importante es el inglés.
   Totalmente de acuerdo ☐ De acuerdo ☐ Neutral ☐ En desacuerdo ☐ Totalmente en desacuerdo ☐

8. Es necesario que te sepas inglés.
   Totalmente de acuerdo ☐ De acuerdo ☐ Neutral ☐ En desacuerdo ☐ Totalmente en desacuerdo ☐

   Totalmente de acuerdo ☐ De acuerdo ☐ Neutral ☐ En desacuerdo ☐ Totalmente en desacuerdo ☐

    Totalmente de acuerdo ☐ De acuerdo ☐ Neutral ☐ En desacuerdo ☐ Totalmente en desacuerdo ☐
II. ENCIERRA EN UN CÍRCULO EL INCISO O COMPLEMENTA EN LOS PUNTOS SUSPENSIVOS A LAS SIGUIENTES PREGUNTAS.
(PUEDE HABER MÁS DE UNA RESPUESTA).
1. ¿Cuál crees que sea tu nivel de inglés?
   a. Básico      b. Intermedio    c. Avanzado

2. ¿Qué dificultades tienes al aprender el idioma inglés?
   e. Comprensión en la lectura   f. Conversación   g. Falta de comprensión del inglés hablado

3. ¿Por qué desearías aprender el idioma inglés?

4. ¿Cuál destreza lingüística del inglés es más importante para tu campo de estudio (Agronomía)?
   a. Escuchar   b. Leer   c. Hablar   d. Escribir

5. ¿Para qué necesitas el idioma inglés?
   a. Para realizar traducciones   b. Para comprender textos especializados de mi área
   c. Para manejar programas de computación especializados   d. Otro

6. ¿Cuánto tiempo crees que necesitas para saber inglés?
   a. Un semestre   b. Dos semestres   c. Tres semestres   f. Más de tres semestres

7. Según tu opinión. ¿Cuántas horas a la semana es necesario para pasar clases de inglés?
   a. 3 horas   b. 6 horas   c. Más de 6 horas

8. ¿Qué tipo de docente de inglés te gustaría tener?
   a. Hablante nativo de inglés   b. Profesor normalista de inglés   c. Profesional del idioma inglés
   d. Profesional del idioma inglés con estudios en tu área de especialización   e. Otro

9. ¿Qué actividades te gustarían para aprender el idioma inglés?
   e. Escuchando grabaciones   f. Traduciendo   g. Producción de textos   h. Otro

10. ¿Cómo aprendes mejor el inglés?
    e. Traduciendo   f. Practicando   g. Hablando   h. Otro

11. ¿Cómo te gustaría aprender el idioma inglés dentro el aula?
    a. Individualmente   b. En pares   c. En grupos   d. Con toda la clase

12. ¿Qué tipo de materiales te gustaría usar?
    a. Texto de inglés   b. Libros de tu área de especialización   c. Artículos científicos de tu área de estudio
    d. Audiovisuales   e. Páginas web   f. Otro

13. ¿Cómo te gustaría ser evaluado?

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APPENDIX III: STATISTICAL DATA (STUDENTS)

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La Paz, 14 de febrero de 2011.
# APPENDIX IV: REGISTRATION OF PROFESSORS

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APPENDIX V: AGRONOMY PENSUM

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CADA MENCION TIENE UN NUMERO INDEFINIDO DE ASIGNATURAS ELECTIVAS ABINDE DE LUCRATIVAS. EL ESTUDIANTE DEBE CURSAR ENTRE 13 A 18 CREDITOS PARA COMPLETAR EL CREDITAJE CORRESPONDIENTE EN LA MENCION DE SU PREFERENCIA.
PLAN DE ESTUDIOS DE LA CARRERA DE INGENIERÍA AGRONÓMICA

La Carrera de Ingeniería Agronómica, es una unidad académica de la Facultad de Agronomía dependiente de la Universidad Mayor de San Andrés, brinda la oportunidad de concretar la vocación hacia la noble carrera de profesionales en el campo de la agronomía, para contribuir al desarrollo del país y de la región, mediante la recuperación y actualización de la tecnología científica en el marco de la práctica de la agropecuaria a nivel de equilibrio con la ecología.

PERFIL PROFESIONAL DEL INGENIERO AGRONOMO

El Ingeniero Agrónomo, formado en esta unidad, es un profesional capacitado a través de una sólida formación científica básica y de conocimiento de los principios fundamentales que rigen los procesos de producción agrícola y pecuaria, además posee una orientación hacia la especialidad en el último ciclo de estudios, así mismo se apoya a su formación con prácticas en nuestras Estaciones Experimentales de Chaquenar y Belén. La Facultad cuenta con una biblioteca especializada y laboratorios mínimamente equipados; el ingeniero Agrónomo al concluir sus estudios, posee las herramientas científicas y técnicas adecuadas para comprender y resolver con solvencia y competencia los problemas agrícolas y pecuarios, generando investigación y tecnología aplicada a las necesidades y realidad del país. Como parte integrante en la producción agrícola, está en la capacidad de solucionar los problemas del sector rural, incremento en la producción agropecuaria, está capacitado para planificar y administrar pequeñas y grandes empresas agropecuarias; está capacitado para dar asesoramiento y participar en la solución de problemas en la esfera de su acción.

DURACIÓN DE LA CARRERA

El Plan de estudios contempla la formación de un grado intermedio, el cual concluye el octavo semestre, el estudiante puede optar por el grado de BACHILLER EN CIENCIAS con 192 créditos equivalentes a 4.088 horas, más dos semestres adicionales con 32 créditos (en total 225 créditos, más la tesis y otra modalidad de graduación, aproximadamente 572 horas) obtendrá la LICENCIATURA EN INGENIERÍA AGRONÓMICA, todo enmarcado en un sistema semestral.

ADMISIÓN DE ALUMNOS NUEVOS

La modalidad de ingreso a la Carrera de Ingeniería Agronómica (incluido el Bachiller en Ciencias) está normalizada y establecida en los Reglamentos de la Universidad, que contempla como únicas formas de ingreso a través de la Aprobación del Curso Pasantías, el Examen de Desempeño o la Admisión Especial.
APPENDIX VI: OPEN INTERVIEWS

Interview 1: To a professor of the Agronomy Department

1. Good morning professor, may you help me with some questions related to your department?
   R.- Eh... what for?
2. This is an investigation related to the state of the curriculum of the Agronomy Department.
   R.- Ahh... well, but I do not have so much time.
3. Do not worry, it will last few minutes. For you, which is the most important language in the world?
   R.- Nowadays the language of communication par excellence is the English. Mm... all the people need a language to communicate with the world and other language to communicate in the country. To communicate with the world it is necessary to speak English.
4. An agronomist does need the English language?
   R.- So, If one wants to go to other country to study or for doing specialization courses, he/she needs the English. A Chinese, a Japanese,... all the people know the English. Even peasants in Japan speak in English. In the schools of Japan students leave the primary education speaking English, but this situation does not happen in our country. When somebody goes to the farm of peasants, they demand to be spoken in their native language. I am a “quechuista” and one “aymarista” demands me to speak in “Aymara”, but I have said him to speak in “Quechua”. Ahh..., ehh... The government has retrograde politics with the inclusion of many native languages; the solution would be to standardize to all people with a national language and other language to communicate with the world (English). Ehh...with these politics we can not to communicate even among Bolivians.
5. In your point of view what are the solutions?
   R.- The new tendencies in many countries is the reduction of languages. In Japan streets there are ads in Japan and in their side the translation into English, they manage the English with overseas people. In Indonesia there were many islands with their native languages, but they couldn’t communicate each other; so it was adopted a national language to communicate into their country and a language of globalization such as the English language.

Even in cultural terms, Japanese people run every day, so for this they need the occidental suit for their comfort and dressing with their ‘kimono’ into their houses, they love their culture but they are with the development of science and technology. Ehh... when I went to the international course in another country all of them spoke English and Spanish, but participants of Africa said that they knew the culture language, they knew the French language; they said that they are in advantage in comparison of us, because they speak the language of culture.
6. Thank you for your cooperation
   R.- You are welcome.
Interview 2: To a professor of the Agronomy Department

1. Good afternoon Engineer, please can you answer some questions related to Agronomy Department?
R.- Of course.
2. English is an important language?
R.- Eh… yes, you need the language for investigation.
3. An agronomist what do need English for?
R.- English is essential for writing reports, to search information and to prepare your technical report. Also is necessary for writing books and especially for investigation.
4. In the field with peasants, do you need English?
R.- No, we do not use English. The native language is more important. Sometimes, the peasants wanted detailed explanation in their mother tongue, I mean, in “Aymara”.
5. Do you know English?
R.- Mmm… the technical things.
6. How do you bear the necessities of English when you need to do your reports?
R.- I use translators. There are many translators in the web and in the market.
7. Do you consider that English has to be included in the Agronomy Department syllabus?
R.- English was included in the syllabus before 1992. But it was taken out; I don’t know the causes.
8. What skills are more important for Agronomists?
R.- Ehh… you have to read and acquire information in order to write reports for projects.
9. Is it important to learn English for an Agronomist?
R.- Yes, but you will forget it with the pass of the time; it would be better if you have a friend who speak in English in order to practice the English language.
10. Thanks, good bye.
R.- Good bye.

Interview 3: To a professional of the Agronomy Department

1. How are you Engineer, please, can you answer me some questions?
R.- I am ok, thank you. What are your questions?
2. Do you speak English?
R.- I know a little bit, but in general I do not speak English.
3. Do you need English?
R.- English is very important, yes of course I need English.
4. What do you need English for?
R.- I need English to understand books, scientific articles, to fill in the correct way forms and to interchange information in formal meetings with foreign people.
5. What problems do you face, may you describe them?
6. R.- Ahh… well, when I applied to a scholarship on Postgraduate course I was not selected because I could not speak and understand English, the scholarship was in Japan. Another problem was in a meeting to get funds for projects needed in our country with No governmental organizations NGOs, all the meeting was in English,
so, I could not say anything, so even when you know the technical aspects of your work it is impossible to communicate it in international meetings.

7. Do you consider that English has to be included in the syllabus of Agronomy Department?
R.- Yes, English language is needed for future agronomist professionals, because to get funds, to get a scholarship, for doing investigations, etc.

8. Thank you
R.- Good bye.

Interview 4: To a student of Agronomy Department

1. Hello, do you have time, I want to ask you some questions related to Agronomy Syllabus?
R.- No problem.
2. Do you have English classes in agronomy department?
R.- No, we have basic subject up to fourth semester and then the subjects related to Agronomy and in any level is thought English.
3. Do you have necessities of English language?
R.- At the moment not yet, because all the bibliography is in Spanish, but I have heard that we will need it for searching up-to-date information for doing our thesis.
4. What do you need English for?
R.- Because the up-to-date bibliography is written in English. There is not so much specialized bibliography in Spanish.
5. Do you think that English has to be included in the syllabus?
R.- Ahh… I think yes, but it does not to imply to take out important subjects for our training, These English course have to be taken in the last semesters for doing our thesis in order to include up-to-date information in our bibliographies.
6. Thanks, bye
R.- You’re welcome

Interview 5: To a student of Agronomy Department

1. Hi, how are you, Can you answer me some questions in relation to Agronomy syllabus?
R.- Hello, I think yes.
2. Do you speak English?
R.- No, but I want to do.
3. Do you think that is important to include English into your syllabus?
R.- ‘Este’… if it includes to have more tasks No,… (laughs). Seriously speaking I think it has to be included because I want to continue with my M.Sc. and Ph.D. degree through scholarships. Therefore, I am going to study English in other institutions like ‘Centro Boliviano Americano’. Some classmates are taking these courses as an extra courses, specially for somebody who wants to reach a higher performance in their works.
4. Do you have other necessities of English?
R.- Yes, for instance some software applied in Agronomy are just in English and it is too difficult to understand, and their manual are in English, so to understand this kind of
information we have to translate and to understand with the consequence of waste of time
5. Thanks, see you later
R.- It was nothing.

Interview 6: To a student of the Agronomy Department doing another major like Chemistry
1. Hello, excuse me; can you help me with some questions?
R.- Ehh…, yes
2. Do you have English classes?
R.- In Agronomy Department no, but in my other department yes.
3. Are you studying two majors?
R.- Yes, even though I am a little bit stressed.
4. I think yes, because it is too hard to duplicate your responsibilities. What majors are you studying?
R.- I am in Agronomy department and in Chemistry department, both belongs to “Universidad Mayor de San Andrés”.
5. In what semester do you have English classes?
R.- Well, in Chemistry we have English classes at last semesters. Chemistry department just has 8 semesters to get the “licenciatura” degree and it is not necessary to do a thesis.
6. What kind of English is thought?
R.- The technical English
7. Why Technical English?
R.- In last semesters, the bibliography is in English and there are many technical terms used in those specialized books. Also the Master in Sciences degree is free and terminal; and there are scholarships for doing Ph.D. courses away of Bolivia
8. Good look with your two majors, bye.
R.- You’re welcome.