

UNIVERSIDAD MAYOR DE SAN ANDRÉS
FACULTAD DE HUMANIDADES Y CS. DE LA
EDUCACIÓN CARRERA DE LINGÜÍSTICA E IDIOMAS



Creación de Memorias de traducción y terminología recolectada durante el segundo semestre del 2013 en el CETI (Centro de Enseñanza y Traducción de Idiomas) para ser usados en un sistema de traducción de los textos académicos del español-inglés, inglés-español

Trabajo Dirigido para obtener el Título de
Licenciatura

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FACULTY OF HUMANITIES AND EDUCATIONAL
SCIENCES
LINGUISTICS AND LANGUAGES DEPARTMENT



**DEVELOPMENT OF TRANSLATION MEMORIES AND
TERMINOLOGY IN CETI-UMSA (CENTRO DE
ENSEÑANZA Y TRADUCCIÓN DE IDIOMAS) DURING
THE SECOND SEMESTER OF 2013 TO BE USED IN A
SOFTWARE AS A TOOL IN THE SAME INSTITUTION
FOR THE TRANSLATION OF LEGAL AND ACADEMIC
TEXTS SPANISH-ENGLISH AND ENGLISH-SPANISH**

Supervised Work to obtain the “Licenciatura”
Degree

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LA PAZ- BOLIVIA

2016

This work is dedicated to our family, who supported us, took care of us, and mainly loved us.

*“If we start
something without
a misconception
we would discover
our big skills”
Takarai Hideto*

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RESUMEN

El presente informe de trabajo dirigido: "Creación de Memorias de traducción y terminología recolectada durante el segundo semestre del 2013 en el CETI (Centro de Enseñanza y Traducción de Idiomas) para ser usados en un sistema de traducción de

los textos académicos del español-inglés, inglés-español”, plantea la recolección de toda la terminología obtenida durante el periodo que duró esta modalidad de graduación, es decir, del 27 de mayo de 2013 a diciembre del mismo año, así mismo la creación de memorias de traducción de los documentos traducidos en el mismo periodo para luego ser agrupados en un corpus y ser sistematizados dentro de un software. Como un antecedente, podemos decir que dentro del CETI no existía algún sistema de centralización de este tipo de componentes importantes en toda traducción, como lo son las memorias de traducción y la terminología, por lo que estos mismos eran repetidos y hasta cambiados constantemente por los diferentes traductores lo que hacía que las traducciones no sean estandarizadas, entonces, luego de un análisis FODA (Fortalezas, oportunidades, debilidades y amenazas) se llegó a la conclusión de que un sistema así no era sólo necesario sino imperioso. Así, durante esos seis meses se realizó la colección de terminología y la creación de las memorias de los documentos académico-legales del inglés al español y viceversa, para finalmente ser reunidos en un software que luego fue alojado en el servidor de la Universidad UMSA con el nombre de “*CETI electronic corpora*”. Este software se realizó con la ayuda de un ingeniero en sistemas, quien luego de oír nuestros requerimientos estructuró y desarrolló el sistema para luego ser presentado al director del CETI para ser usado dentro de la institución y cumplir la misión para la que fue creado Entre las virtudes de este software está el hecho de que no sólo centraliza y ayuda a estandarizar las traducciones presentes, sino que también es apto de alojar mucha más terminología así como memorias de traducción para ser usadas en traducciones futuras y poder así estandarizar las traducciones que se realizan dentro del CETI.

ABSTRACT

This report of Supervised work called: “*Development of translation memories and terminology in CETI-UMSA (Centro de Enseñanza y Traducción de Idiomas) during the*

second semester of 2013 to be used in a software as a tool in the same institution for the translation of legal and academic texts spanish-english and english-spanish” shows us the development of our project, it means, to collect all the terminology collected during the second semester of 2013, and to create Translation memories of the translated texts in order to be systematized inside a software. We can say that in CETI there was no any system that gathers these important tools of translation, then, the translated texts were no standardized because any translator used to use their own terminology and their own translation memories. As a consequence, and after doing a SWOT analysis, we concluded that CETI needed this kind of software by all means. So, after we collected the terminology and created the translation memories of the academic and legal texts translated during our work of 6 months in this institution, we put them into a software in order to be uploaded into the server of UMSA (Universidad Mayor de San Andrés). This software was developed by an engineer in computational sciences, who after hearing our requests, he structured and developed it. Finally we displayed this system to CETI’s head in order to be useful for him and the current translators, this software not only stores the gathered terminology and the created memories, but it also can store future terminology and translation memories for standardizing future translations.

**DEVELOPMENT OF TRANSLATION MEMORIES AND
TERMINOLOGY IN CETI-UMSA (CENTRO DE ENSEÑANZA
Y TRADUCCION DE IDIOMAS) DURING THE SECOND
SEMESTER OF 2013 TO BE USED IN A SOFTWARE AS A
TOOL IN THE SAME INSTITUTION FOR THE
TRANSLATION OF LEGAL AND ACADEMIC TEXTS
SPANISH-ENGLISH AND ENGLISH-SPANISH**

INTRODUCTION

Translation could be one of the earliest practices on earth, if we assume that the Biblical story of Babel was true, the translation history was initiated in that moment too. Though the translation of the Holy Book by Saint Jerome, showed that the translation process became a matter of study. It increased its relevance in the World War II because many people had to be judged for their crimes in various languages, so, translators had an important role in that period of history.

Hence, what exactly is translation? We can take into account this quotation: “¿Se entiende ésta como una manipulación mágica en virtud de la cual la obra escrita en un idioma surge súbitamente en otro? Entonces estamos perdidos.” (Gasset, 1937, pág. 1), then, we can conclude that translation is a very complicated matter to define because it has a lot of approaches and because translation is immersed in culture, and consequently into humanity. If we do not take into account this anthropological side, we can use the definition of (Newmark, 1987) who says that translation is a science because it involves knowledge and verification of languages, it means what is wrong, what is a mistake of truth, or what can be identified; in addition, translation is a skill because it claims the appropriate and acceptable usage of a language; an art because it detects the creative, intuitive, and inspired level of the undistinguished writing.

Therefore, taking into account these concepts, and as under graduated students of “Mayor de San Andrés” University (UMSA) in the Linguistics Department, we were so interested in translation, that we applied for this supervised work in CETI¹, which belongs to UMSA and which translates any legal and academic texts of people who require them. The present Supervised work was developed in the translation offices of CETI at Grover building on J.J. Perez Avenue and Urdininea Street, second floor. The period of work was from May 27 to December 27, 2013.

When we initiated our activities in this institution, we made a need analysis based on an S.W.O.T.² diagnosis survey, and also by observing the material that was used in the Translation Center. We concluded that CETI translation Center has a lack of organization and standardization of terminology, and it did not use translation memories. Briefly we can define a Translation Memory as a storehouse of texts in a source language with its respective translations into one or more target languages, so, a

¹ Centro de Enseñanza y Traducción de Idiomas.

² Strengths, weaknesses, opportunities and threats diagnosis survey. It is based on an analysis of the whole characteristics of an institution.

translation memory is a special kind of database of translated texts that could be used in other translation processes in order to save time. Furthermore, we can define Terminology as the corpus in which we store any useful word translated into a target language and it is used to make future translations.

In that way, our proposal is a software that stores the terminology and the TMs created and collected during our activities at CETI. Thus, with this software we sought the modernization of the translation process as well as the standardization of translations, it means, the translations could be based on a stored translated text, thereby, time might be saved and consequently CETI can answer the customer's requests for faster and reliable translations.

It is important to explain that this project just involved the translation of legal and academic texts – which were the most requested – to get terminology and develop their translation memories (TMs) for being used in our software. It does not include other areas or other kinds of texts.

On the other hand, we want to explain why we considered that this software is important for CETI. It is important for a translation Center to be organized and to have its own terminological databases in order to create good quality translations. Then, we can say that the globalization and the expansion of technology is nowadays a matter of all the sciences, consequently, translation is not the exception and because it is a related issue to CETI, it is important for translators of this institution to be updated and to develop this kind of new technology.

Now, it is important to detail the content of this report in order to present it, then, in each chapter of this report we will find the followed steps in order to get the object of developing this software called “*CETI electronic text corpora*” with the terminology and the TMs. In chapter I we can read all the CETI characteristics; it means the general aspects such as the historical, geographical, demographic and economical aspects. In the other hand, it contains a detailed description of the SWOT analysis taking into account all the strengths, weaknesses, opportunities and threats of CETI.

In chapter II it could be found the work proposal that represents the basis of this work, and it includes the justification as well as the description of the main problem that establishes this report, thereby, it contains some theory that supports the proposal. In

this chapter we will describe the objectives and the indicators that delimitates them in order to make this work reliable, as well as the action plan and strategies followed for reaching our goals.

In chapter III is displayed the proposal development that we followed in order to collect terminology and create any TM, it could be shown the steps that traced the final templates stored in the software, it contains some examples of documents and how they were drawn and filled with the main fields of information. Thus, in this chapter we will show the achievements that were the result of the previous steps of collection and creation of terminology and TMs, as well as the main acquired experiences in this period of the Supervised work as part of our professional development.

In chapter IV the results are going to be displayed, it means, the presentation of our software and the steps to follow in order to use it. Finally in chapter V there are the conclusions and recommendations that conclude this report.

CHAPTER I

LANGUAGE TEACHING AND TRANSLATION CENTER (CETI)

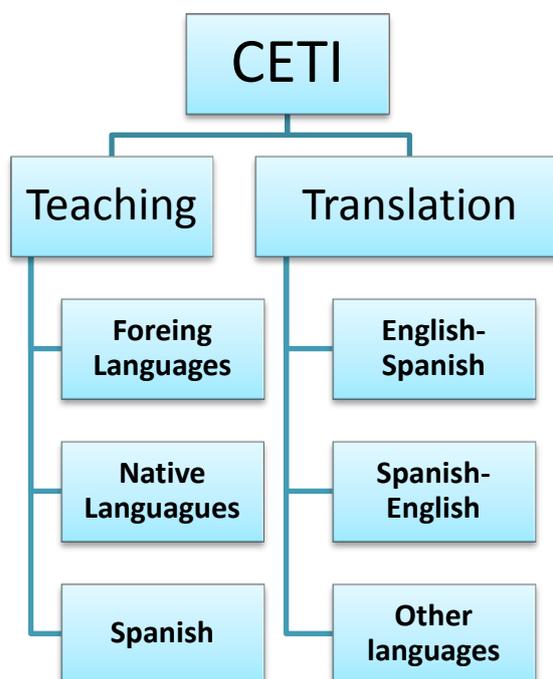
1. GENERAL ASPECTS

Now we are going to explain what CETI is, and what their functions are. The Center of Teaching and Languages Translation (CETI) is an academic unit that depends on the Linguistics and Languages Department under the control of the Mayor de San Andrés University (UMSA). It was created in 1993 with the H.C.U³. resolution 173/93 of December 13, as an effort for supporting the traditional process in language teaching and translation. Since its foundation, its main tasks involved training and specialization in teaching languages to students of all the UMSA faculties and the public at large.

³ Honorable Consejo de Carrera

In order to be didactic, we display the next schema of the structure of CETI in both areas that it covers:

Figure 1.1. CETI's Function Structure



Talking about language teaching, CETI offers a specialized training in foreign languages as English, French, Chinese, etc., and in native languages such as Aymara and Quechua as well as Spanish for foreigners or native people, it develops this function with quality and efficiency to everybody who has a language requirement. Each area is Supervised by experienced professionals. CETI also promotes and strengthens language training services to different UMSA departments; it consolidates self-financed courses to achieve autonomy in the management of economic resources and encourages different workshops reinforcing the language that is studied by students of Linguistics and Languages Department.

On the other hand, CETI also offers translation services through a Translation Center. At first, translations were only focused on fulfilling the requirements for scholarships. Nowadays, however, the Translation Center is open to public and private institutions requirements, mainly in the area of legal and academic texts (e.g. certificates, degrees, transcripts, etc).

The languages that are frequently use in translations are: English, French, Russian, Aymara Portuguese, and Spanish, being the last ones very important at the level of academic and legal texts. Besides, the Translation Center has the service of interpretation in all the languages mentioned above.

Over the years, CETI is known as an important institution, and is recognized by governmental institutions such as SEDUCA⁴. This institution established an agreement with CETI, because for people it is necessary to translate their documents in some foreign languages from Spanish and vice versa, these texts could be academic or legal, and CETI gives them a legal value. Likewise, people who want to apply for a scholarship in any foreign country should translate their documents into the required languages in order to make them valid.

1.1. GOALS

In its resolution No 173/93, the H.C.U⁵ of the Linguistics and Languages Department of UMSA established the following goals:

- a) It follows the goal of teaching some native languages such as Quechua and Aymara, as well as the eventual instruction in other native languages.
- b) This institution provides the service of teaching Spanish as a foreign language as well as a second language.
- c) CETI teaches foreign languages such as, English, French, Russian, Japanese, Arabic, etc., not only to students from different Departments of UMSA, but also from other institutions.

⁴ Servicio Departamental de Educación

⁵ Honorable Consejo Universitario

- d) **It is an important agency in UMSA because it became the official translator of the whole university, by translating legal texts into foreign languages and vice versa**
- e) **Its mission is helping in any translation requirements of any particular person or institution.**⁶

We have to highlight the last two because those clauses are related to the translation area.

1.2.CETI'S CHARACTERISTICS

CETI is a known institution in our city, that is why these aspects are important to be taken into account. The external environment of the institution is divided into:

1.2.1. HISTORICAL ASPECTS

The CETI was created in 1986, but it was recognized by H.C.U. in 1993 with a very strong presence in La Paz city and throughout the country because of its growth through the translation history at a professional level. This aspect makes it the main institution with an agreement along with SEDUCA. The agreement mentioned involves translation of any academic document that is written in other foreign language.

1.2.2. GEOGRAPHICAL ASPECTS

CETI is located at Grover Building between 20 de Octubre Av. and 6 de Agosto Av. In front of Juan José Perez Av., it is where any translation service requirement is made. On the other hand, the director office is located on 6 de Agosto Avenue in Casa Montes building, where the registration and all the reports are made.

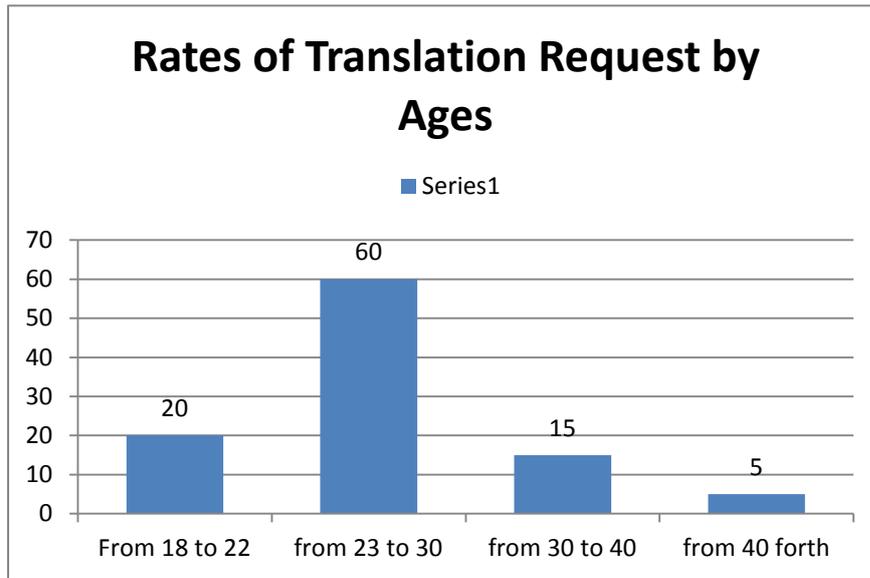
1.2.3. STATISTICS

1.2.3.1.DEMOGRAPHIC ASPECT

Based on a review of checklist of translations during 2013, almost all the people that required a translation are young people from 23 to 30 years old, with a 60% of demand, as we can see in the graph 2 where it is shown the percentages of the demand in ranges of age. It is necessary to clarify that this statistics does not have the classification of gender because of the lack of difference between translation requirements among them.

⁶ Own translation

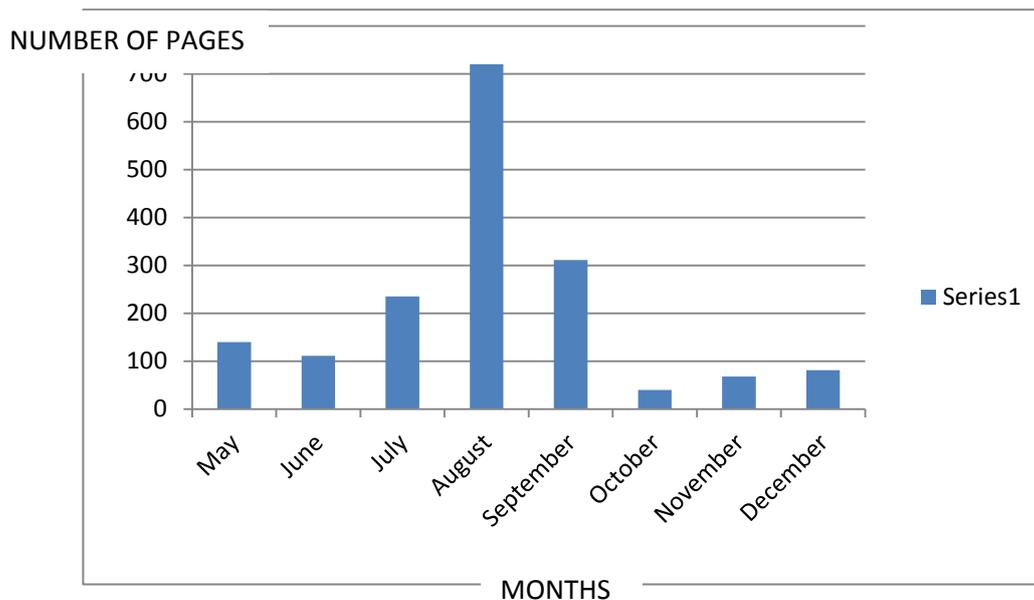
Figure 1.2. Rates of translation according clients' age



1.2.3.2. DEMAND OF TRANSLATIONS

Based on the reports, the demand of translations made during our period of working was:

Figure 1.3. Rates of Translation demanding



As we can see, the demand of translations were increased in August and September, it is because this is the scholarship's season.

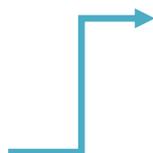
1.3. THE TRANSLATION CENTER OFFICE

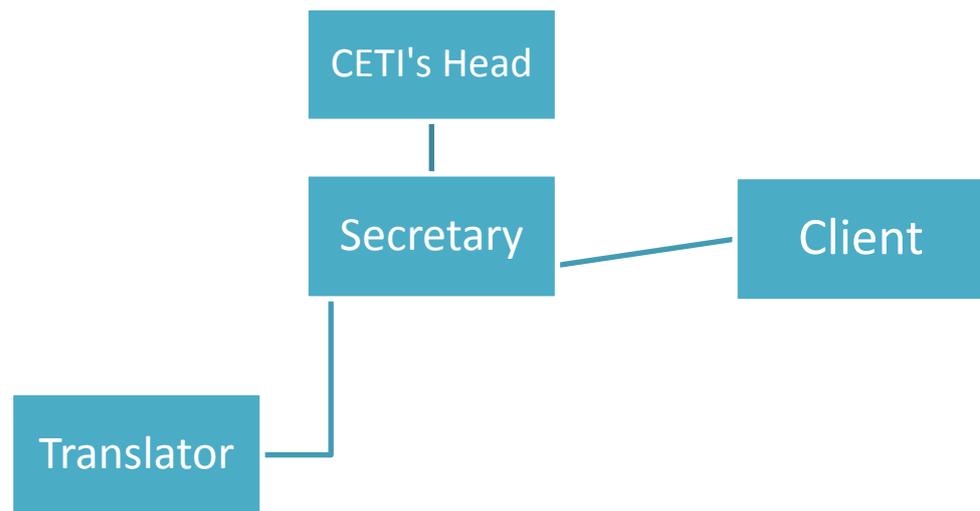
Now we are going to describe the main area of CETI that is important for the development of our Supervised work.

This area of CETI started its functions since the decade of 80's in order to cope the demand of translations from departments of UMSA such as "Unidad de Diplomas" and the section of Legal counsel, but, because of administrative problems there were no more a place designed for translators inside CETI.

In 1993, it was established the Translation Center Office, after a resolution of H.C.U., but unfortunately it was only a name, because there was no any physical office in which professors could work. However, it is from this decade of 90's that CETI translation Center Office was opened for other public, it means, other particular people who have any requirement of translation. It is during this period that CETI reached the agreement with SEDUCA, hence, CETI was able to translate any academic or legal text in foreign for students who came from other countries and wanted to continue their studies in Bolivia, or people who want a scholarship, etc. Consequently, it was the structure of the Translation Center Office in that time:

Figure 1.4. The 80's and 90's structure of CETI





Describing it, the structure of working in CETI Translation Center Office was quite basic because the Head of the whole institution was the director, so, if any client required a translation, he or she had to give the document to the secretary, and this person gave the same document to the translator, he or she translated and gave back it to the secretary who delivered the translated text to the client. This structure continues even in the first ten years of the XXI century or the 2000's.

For many years, professors of English area from Linguistics and Languages Department were the official translators and who were hired per year, it means, they have a contract for working for the lapse of a year, hence, translated texts were part of any translator making impossible sharing or standardizing them. But, due to an initiative of the Head of CETI along with the Linguistics Department Head's Office decided to implement a new project in the second semester of 2012. It was mainly for the high demand of translations that cannot be cover by professors and for some administrative problems, because some translators did not agree with the payments, we could investigate that some translators gain just the 20% of the total price of the translation, then, some of them demitted or did not translate documents in the established time.

Therefore, students of Linguistics who finished their studies will achieve their Degree by developing a Supervised Work focused on the needs of the Translation Center Office; thereupon a physical office was finally settled. In this office the students could work in the translation, with the use of some computers connected to internet and

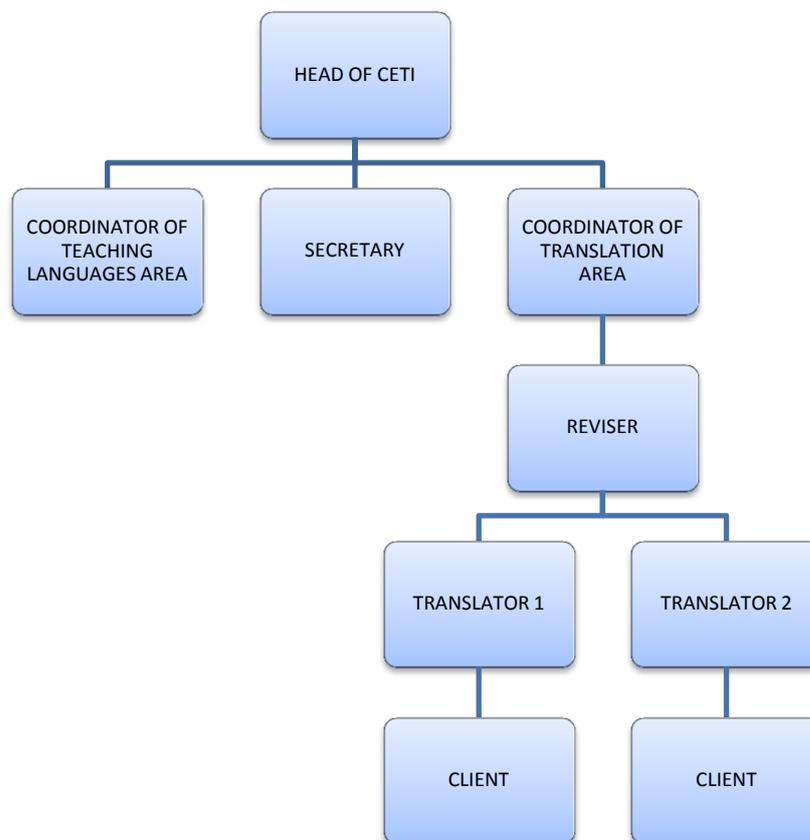
dictionaries, but in this first group of applicants, who were just two students, followed the same structure of the 90's functions, e.g. the secretary took the text and gave it to students, students translated it and finally it was delivered to the client. After the second generation of applicants, clients could be in contact with the clients, then the translations were more reliable because if any doubt or misunderstanding were emerged, translator could ask for some clarifications, this fact were no possible in the former structure of working. Thus, new dynamics of work were implemented where students were in charge of translation services. So, they translated texts as a part of an individual project that aims to help their academic knowledge development in the field of translation and at the same time, to help the Translation Center Development. The institution provides a reviser⁷ who was in charge of the evaluation of each student. The translation editor was a professor of the Linguistics and Languages Department or a professional related to the field. The main goal of the Supervised Work was the translation of any academic or legal text from a second language (L2) into a first or mother language (L1) or vice versa. Common languages required for translation are Spanish, English, Portuguese, Aymara, etc., but students' role is focused only on Spanish, English and Portuguese, besides other languages could be known by the students.

By checking the final translation works, the translation editor assessed each student and gave them a score. His role involved the testing and guidance, the latter provided a high quality in translation by means of essential theories and techniques as well as his experience in the area.

Furthermore, from 2013 to 2014, a coordinator was assigned and took part in this project along with the reviser. He was in charge of guiding applicant students in developing new projects that would help the growth of the Translation Center. In addition, a coordinator should assign the respective mission and tasks of everybody in the area. In the following graph, the organization of the Translation Center during the period of 2013 is shown:

⁷ Translation editor is any program specialized in translating, helping management of texts and documents in translation process. A reviser, however, is responsible for checking the accuracy of translations and concordance with the original text, for ensuring consistency of terminology and improving style. For more info see: http://portal.unesco.org/en/ev.php-URL_ID=13221&URL_DO=DO_TOPIC&URL_SECTION=201.html

Figure 1.5. Organization of the Translation Center in 2013



Now, we are going to explain this figure, all of the functions of CETI were regulated by the Head, who was in charge of the both coordinators (One of the area of teaching languages and one of the translation area), the secretary did not get any text such as the 80's and 90's structure, hence, the texts or any project were just responsibility of the coordinator. The reviser was the head of the translators, in this case, students of the last year of study, this person assessed the translations and the abilities of translators, and as a new fact, the translators were the responsible of getting and delivering the translated texts to the client.

Now, during 2013, we worked at CETI based on the model at Mgs. Ruddy Espinoza who was the coordinator of the translation area, this model was named: "Gabinete de Traducción", which included the same services already know from the beginnings in the 80's as well as some other services used in other Translation Centers abroad. This kind of services answered to the main competences that a translator must have, as (Espinoza, 2012) said: "the translator's competence is the union of the linguistics and extra linguistics competences, as the same as techniques, strategies and

searching information competences, and technological tools related to translation.”⁸ So, we can find the next services:

a) TEXT TRANSLATION:

In which we can find translation of legal and academic texts, as (Comunidad de Madrid, 2009, pág. 4) explains: “This is an specialized translation of sciences, technology and humanistic texts (Except literature)”, CETI has the a big quality in legal and academic texts translation, it translates transcripts, diplomas, certifications, etc.

It is providing services of translation of different kinds of texts. Two main groups are involved:

- **GENERAL TRANSLATION**

General translation is understood as all the texts in which specialized vocabulary of any field is not required (Comunidad de Madrid, 2009, pág. 7). This kind of texts can be known as “Literary” texts, mainly poetry, tales, etc., it means any text except the scientific ones.

- **SPECIFIC TRANSLATION**

In this group, the texts that required specialized vocabulary of specific field of study are involved, texts such as medicine, accounting, archeology, etc. (Comunidad de Madrid, 2009, pág. 8) documents. Concerning the specialized translation we can mention that the Center of Translation has more experience in academic texts. As an academic institution, it has been offered translation services of all academic texts that the university requires in order to validate education status of students coming from and going abroad for academic reasons. The most required ones are:

- ❖ Academic Certificates
- ❖ Academic Transcripts
- ❖ Diplomas
- ❖ Academic Curricula
- ❖ Study Programs

⁸ Own translation

- ❖ Notarial Certificates for Authentication
- ❖ Authentication of signature
- ❖ Letters of recommendation, accreditation, certification, etc.

b) INTERPRETATION

It is called “Oral translation” because it is developed in an oral way, so, there are two different kinds of interpretation, the simultaneous and the consecutive one: “Simultaneous interpretation: It means oral translation at the same time the speaker is speaking. Consecutive interpretation: It is oral translation made after a break in the speaking of the locutor” (Comunidad de Madrid, 2009, pág. 12).

c) VERIFICATION AND AUTHENTICATION

It is a very interesting matter in CETI, because it has the approval of SEDUCA, CETI can verify the translated texts in other Translation centers and certificate them in order to be legally used.

d) TEXT CORRECTION AND EDITING

The Translation Center is an important office of the Linguistics Department, so, there are a lot of qualified linguistic professionals in this filed documents such as books, thesis, etc. can be corrected.

e) AUDIOVISUAL TRANSLATION

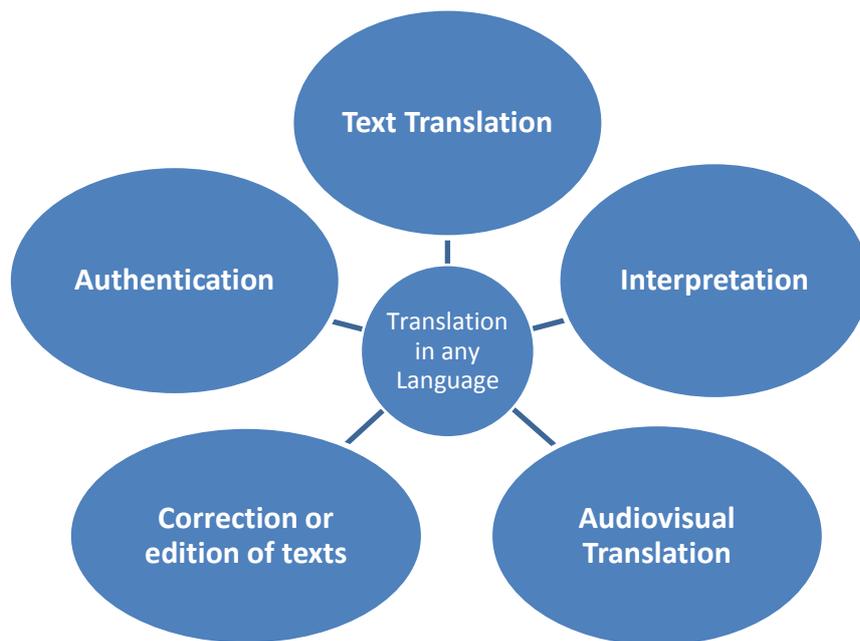
“It is the translation of information of one language to another because the audio track is in a foreign language and the subtitles are in a mother language. It is the most common combination when a movie or TV show is distributed in a country with a different language” (Cintas, 2012, pág. 2). It is a modern branch of translation, and nowadays it is required in our context because of the new tendencies of communicative expansion. Then, these are the areas of CETI:

- ✓ Text Translation
- ✓ Interpretation
- ✓ Verification and Authentication
- ✓ Text Correction and Editing
- ✓ Audiovisual Translation

Audiovisual Translation was recent. It is still in the process of implementation. However, there is a raising interest of costumers that already required for this kind of services.

This is the figure that illustrates Espinozas' model applied in 2013:

Figure 1.6. Espinoza's Model



2. NEEDS OF SUPPORT

Now, we need to specify which aspects are more remarkable. In that respect, the strengths, weaknesses, threats and opportunities (S.W.O.T.) of this institution are going to be described. Each of the following points is based on an S.W.O.T diagnosis survey, considering the applicant students, the reviser and the coordinator's comments who worked before we joined the institution.

2.1. STRENGTHS

Inside the strengths, we can mention that the best strength is the agreement with SEDUCA which points out that: all the people who need to follow the necessary procedures in the Ministry of Education, they have to make CETI translate their L2 certificates, diplomas, etc., that is why everybody has to go to this institution, and this is the main economical income of the Translation Center. So we can conclude that:

- The Translation Center is recognized as the unique institution of Mayor de San Andrés University to translate or authenticate translations of Diplomas, Transcripts, under or post Degree Programs or alike.
 - It is recognized as one of the main units of translation over Bolivia.
- It can provide translation services to the state's public units, ministries and educational institutions at undergraduate and postgraduate levels, and private institutions or public in general.
 - It can innovate and implement new programs and equipment.

2.2. WEAKNESSES

Now talking about the weaknesses, we can see that because of the lack of TM designed in charts designed in the word processor software, and an automated glossary, the job tends to take a lot of time in its delivery. In that way, both characteristics are related to each other. If the Center had a software with the TMs of legal and academic texts, and as a bonus an automated Glossary that could be in net, the strength of the Center would increase in its velocity of delivery of client documents, because clients sometimes requires an urgent translation, an at the same time without imposing too much pressure on the staff of translators.

The main problem is the lack of use of technologies according to the age, although in this institution the service of internet is used for the respective search of terminology, this itself is not fast enough to give translators a prompt reply, because in internet there is a lot of terminology that is not separated into fields or specialized vocabulary, that is why a person is not able to select the correct one. This makes the job become slower. On the other hand with the TMs and a glossary joined in same software, searching and translating will be faster.

Then one of the biggest weakness is the limited use of technology that does not let the job be accomplished in a shorter time with the same high-quality level. In that sense, in order to make this institution more recognized by the society, it is imperative to automate the whole functioning of CETI through the use of its own systems.

Therefore, three important aspects are considered proper for analyzing and describing the weaknesses by which the development capacity of the Translation Center may be limited or reduced:

a) HUMAN RESOURCES

- CETI, due to the demand of translation services, requires more applicants of English area with a high English level or other languages proficiency that (if possible) have had the opportunity to be in contact with the culture of the target language, facilitating and making the translation process better.
- There is lack of translation teams specialized in each language that may work full time playing the role of reviser or head translators at the office. Also providing the students the knowledge, they need in order to do a high quality translation work.
- An administrative specialized staff such a computer technicians, secretaries, etc. that can help to a call center.

b) TOOLS AND ORGANIZATION

- Word alignment. It is necessary to have an alignment of every translation work to avoid repetitive work.
- Implementation of new technological tools such as: Glossary of terminology of many different fields of study.
- Creation of TMs⁹ and to save them into a data base software.
- Information searching using technology tools rather than just books.

⁹ Translation Memories

- Lack of systematization of translated documents.
- Lack of implementation of translation programs, technical glossaries, dictionaries and TM.

c) **INFRASTRUCTURE**

- Lack of a larger space for the implementation of more equipment and translators.
- Lack of furniture to warrant a better work condition.
- Lack of implementation of a website for information about the service offered by the translation center.

2.3. THREATS

- Lack of economical support to implement technological tools, to hire professional translators and to improve infrastructure.
- Lack of academic support in the development of new projects about translation and the implementation of new translation services such as translation of websites.
- Many Institutions and Independent translators that offer translation services at very low prices.
- Without implementation of technology the Translation Center would stop being a recognized Institution.

2.4. OPPORTUNITIES

Taking into account the opportunities, the problem to delimit is the lack of a specialized, automatic software glossary in net and a corpus of the TMs. This could create a corpus from the translation Memories and a data base of the terminology developed on the period from May to December of 2013. This is the problem that will be solved in the present project.

Thereby, these are the main opportunities that we can take into account:

- It can improve the economy of the whole CETI institution due to the high demand of translation services.
- It can expand its services wide world through internet connections.
- It can boost UMSA's public image according to the quality of services.
- It can be an important institution that is in charge of Academic Translations in the whole Bolivian Academic system.

It is clear that the Translation Center has with many positive aspects that can help it grow and be one of the most qualified institutions providing translation services. Nevertheless, we cannot avoid mentioning the weaknesses that seriously harm the Institution. Of course, they can be improved with hard work. This Supervised work aims to overcome at least one of the weaknesses and help the Institution to take a step forward in order to succeed as a well-known Bolivian translation office.

We are going to expose the S.W.O.T. analysis in more detailed way in the following chart:

CETI as a constantly growing institution has consolidated its teaching services of languages, mainly in English and Aymara. In the last five years, the increment of students demand is part of its basic pillars and its main strengths. Furthermore, very recently, the publicity on TV and radio is spreading its presence in La Paz city.

However, the branch of the institution in charge of translations has not had the same growth. Services were frequently directed to the university customers or other restricted groups. Evidently, its marketing presence did not spread until the signature of an agreement with the Bolivian Ministry of Education. This agreement is the fundamental driving force for its growth, guaranteeing and assuring a constant income (Documents of academic nature) during the year. Nevertheless, other aspects can be

improved. The absence of far-reaching projects is one of the problems that should be faced.

In that respect, we can summarize the outcomes of SWOT analysis as follows:

1. Notice that the outstanding part in the strengths and opportunities analysis is focused on the fact that CETI has a good agreement with SEDUCA. Furthermore, the great opportunity that CETI has, compared with other institutes, it is the ease of accomplishing agreements with other public and governmental entities.

Even this part is omitted in this project because of its administrative nature, we handled with this weakness solving it the time it is required.

2. Second, we identified weaknesses and threats in the lack of creation and handling of technologies related to translation, and the inexperience when using them. We can mention that the lack of TMs and a terminological automated database make the translation work and the delivery too slow in contrast to other worldwide translation centers. In that sense, we are going to describe the quantity of documents and the time spent in its processing and delivery. These data were obtained from the economic reports made by the applicant students during the last two months of the 2012 period and the first semester of the 2013 period; the data gotten from the admission and delivery records saved in the Translation offices were also taken into account. It is imperative to emphasize that any report or record of the previous period before 2012 was found the offices of the Translation Center. For that reason, previous data was omitted.

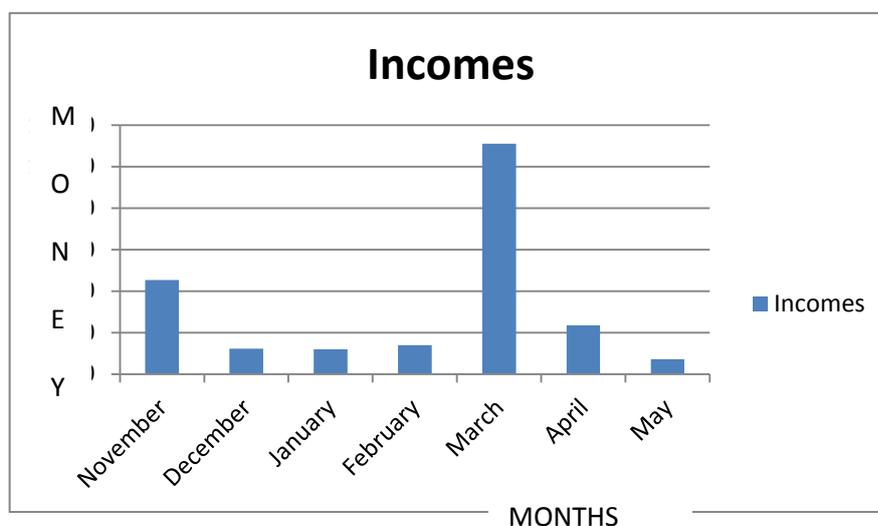
Chart 1.2. Dates of job development from November 2012 to May 2013 Rates of Translation demanding

Month	Documents Quantity between:	Delivery Time between:
--------------	------------------------------------	-------------------------------

November	3 to 10 pages	2 days to 2 weeks
Decembre	1 to 5 pages	2 days to 1 week
January	1 to 5 pages	2 days to 1 week
February	1 to 10 pages	3 days to 2 weeks
March	3 to 20 pages	4 days to 2 weeks
April	1 to 5 pages	2 days to 1 week
May	1 to 5 pages	2 days to 1 week

Consequently, this is the register of incomes:

Figure 1.7. Incomes according to the quantity of translated documents



Nevertheless, the capacity of the Translation Center to face up the customers demanding or a big translation project is too restricted due to time factor. This unbalanced work provokes a collapse in certain periods of the year, when faster deliveries are required. Currently, the Translation Center does not have the necessary technological tools. There is an absence of tools for assisted translation and machine translation. The translations are made with online tools or web pages, but this supposes a double effort. The repetitive terminology is not appropriately registered and its search should be constant - there is not a digital bank of data. Furthermore, when TMs are not

used, and for example when a Birth Certificate arrives to the Center, the translator has to repeat the work of designing the structure of it, or just he has to write it as a letter making a lot of spacing or tabulation format. This process spent many time, but if the Center had a TM corpus, the translator could open it and change just the important data instead of making the whole document again. Those negative aspects make a immediate response slower in the translation process.

It should be considered that the more required texts are Transcripts, Birth certificates, Diplomas and Certificates of professional Degrees, etc. This kind of texts is the base of this Supervised work. A digital corpus of TMs and a database glossary that collects the frequent terminology in translation of academic certificates and legal texts of Spanish to English language and of English to Spanish language will be created.

In summary, the specific problem is focused on the fact that the Translation Center (CETI) does not have a database of the glossary that can be used in net and a corpus of the TMs ready to use in future translations. So, the terminology checked and approved is just left with the translator that uses it without making other translators know it, and it generates a waste of time by looking for it again for the same document.

Using a program in net through a computer as a server, it is guaranteed that all the translators may have precise and more exact terms and TM only with searching the word or the TM in the software. Once the word had been introduced the rest of the members of the Translation Center will be able to locate the word, an image (If it is required) and a link where the source has been extracted. For that objective, we are going to develop new translation memories in charts developed in word text processor software and collect the necessary terminology found in the period of the Supervised Work.

CHAPTER II

WORK PROPOSAL

Since its establishment, the Translation Center has been using a monotonous translation work. The process goes like this: the document arrives in the Center, it is given to any translator who is work-free; he/she translates, checks and finally delivers it to the client. The Translation Memories (not standardized) used in each translation are distributed according with each translator's work time. Those translations are stored in digital format (CD). Due to this way of individual work, the translations are hardly shared with the translator's staff. The situation is worse for terminology because translators do not save or share them. This means the process for developing a new terminology starts all over again each time a new translator works in his/her own corpuses. This is the main problem we face when searching terminology, it becomes unnecessary repeated, making the job of translation slower than expected.

In this sense, the lack of TM in common with the socialization of terminology has to be handled. We propose to develop the TM of legal documents such as Birth Certificates, Transcripts given by SEDUCA, Transcripts of UMSA, criminal record certificates, etc. by using charts designed in word processor software. In addition, a corpus of standardized terminology, which would be shared with the rest of the translators, is proposed as well. As a contribution to the institution, the terminology would be put into a database which will make part of our electronic text corpora for the future translators. In this way, we want to increase the productivity and efficiency of the translation process.

1. JUSTIFICATION

1.1.BACKGROUND

Nowadays, we are living in a technological era, where the great worldwide explosion of technology has lead the creation of devices, programs, applications, etc., never seen before. Science has advanced in a high degree; it is so unbelievable that it would not be surprising that one of these days we could listen that diseases like cancer might be already healed. In that sense, many of the branches of the worldwide knowledge have acquired several types of technology, because today it is impossible to conceive the development of a task without using current technologies. The science of the translation cannot be exempt of this fact.

According to the web pages of some Translation Centers, we notice in other countries (mainly Latin-American ones) that the translation field is starting to implement technologies, such as virtual or on-line dictionaries, Databases of TM, localization and globalization of web pages, etc. Unfortunately, in Bolivia this kind of fields is hardly well-known, even ignored. In addition, CETI in the role of one of the most representative institutions at a national scale in the area of translation does not make use of these technologies doing its job slower but not deficient. If CETI did it, CETI could be the best Bolivian Translation Center, being able to compete with other ones at a South American level. Of course, this project is not expected to be reached so easily, but we may start by implementing this little change in order to make CETI grows in a technological and inventive way.

In theory, this project is based on:

- a) Translation Memories (TM)
- b) Terminological corpus
- c) Information-technology systems in the area of translation

As stated above, The Center of Translation that belongs to CETI had obtained an agreement with SEDUCA, which perhaps is still the most important since its foundation. For that reason, translations of academic texts (Transcripts, diplomas, etc.) abroad and from all along our country come to this institution for being translated. The most required texts are those needed for scholarships. Therefore, CETI needs to have a very high profile to answer these requests with great efficiency.

Unfortunately, the lack of any of the stuff mentioned above makes translations not efficient. It is important to emphasize that we do not mention the professional capacity of the translators, but the non competent handling certain technology accordingly to the era. The Center of translation cannot be compared at least with other Centers of Translation in South America, because these ones have services with the already mentioned characteristics. This means usage of technologies like TMs, Glossaries, etc., it affects the period of delivery as well as their guaranteed quality.

Some examples of the web pages are following:

1. Center of Translation “Traducciones Urbanas” from Argentina¹⁰

Image 2.1. Example of a foreign Translation Center

The screenshot shows the website for Traducciones Urbanas. At the top left is the logo, a stylized 'U' with a globe. To the right, the text reads: "De Silvina V. Lambruschini y equipo", "Av. Corrientes 1386 Piso 9 - Of. 27 - CABA - Argentina", "Tel. 5272 7200 | Cel. 15 6607-3040", and "Lunes a Viernes de 09:00 - 19:00 info@traduccionesurbanas.com.ar". A small flag icon and "English version" are in the top right. Below this is a navigation bar with buttons: "¿Quiénes Somos?", "Traducciones", "Interpretación", "Otros Servicios", "Cotización", and "Contacto". The main content area has a heading "Traducciones" and two columns. The left column has a red box around the text: "Para cada cliente y área de práctica se utiliza un glosario y base terminológica específica. Tenemos un contacto directo y personalizado con cada cliente." Below this is a section titled "* Traducciones Públicas" with a paragraph and a list of services: "Certificados de nacimiento, defunción, matrimonio y divorcio." and "Pasaportes y demás documentos personales." The right column has a section titled "* Traducciones sin Carácter Público" with a heading "Áreas de especialización:" and two bullet points: "Legales:" (listing various legal areas) and "Economía y Finanzas:" (listing financial documents).

2. Center of Translation “Traducciones ZENONI” from Peru¹¹

Image 2.2. Example of a foreign Translation Center

¹⁰<http://www.traduccionesurbanas.com.ar/espanhol/traducciones.html>

¹¹<http://www.traduccioneszenoni.com/contacto.html>



su sector.

Es precisamente este grado de conciencia profesional, combinado con un gran dominio de la terminología especializada, lo que nos convierte en un referente en traducción técnica.

Nuestros traductores y revisores cuentan con una experiencia acreditada en:

- Documentos legales y jurídicos (contratos, legislación, etc.).
- Documentos notariales (escrituras, poderes, actas, etc.).
- Documentos financieros (informes económicos, cuentas anuales, memorias, etc.).
- Documentos técnicos en los campos de ingeniería, telecomunicaciones y construcción.
- Documentos farmacéuticos y médicos.
- Documentos de RR.HH. (CVs, diplomas, etc.).
- Documentos corporativos (actas de consejos, juntas de accionistas, etc.).
- Documentos para licitaciones.
- Manuales de uso, guías, instrucciones técnicas y catálogos.
- Presentaciones en PowerPoint®.
- Contenidos Web.
- Documentos para publicidad y marketing (cuestionarios, encuestas, folletos, etc.).
- Patentes.
- Notas de prensa, artículos, boletines internos, correspondencia.



3. Center of Translation “DECIPHRA ” from Mexico¹²

Image 2.3. Example of a foreign Translation Center



[inicio](#) [traducción](#) [interpretación](#) [nosotros](#) [contacto](#)

» ¹² [Traducción/www.deciphra.net/traducion-traductores-mexico.php](http://www.deciphra.net/traducion-traductores-mexico.php)

Ahorre tiempo al recibir sus traducciones en los mismos formatos de sus documentos originales: procesadores de palabras, hojas de cálculo, paquetes de diseño, presentaciones, bases de datos, herramientas de dibujo, correos electrónicos y documentos de solo lectura.

Pida una cotización

Nombre



These are just some examples of Translation Centers of South America. We can see the society is changing and so its requirements are more technologically competitive because they do not only require translations of texts but also of web pages, databases, etc. In that sense, due to CETI is a specialized Center in legal and academic texts translation, it has the duty to have a terminological database for this area as well as generalized TMs.

1.2.DESCRPTION OF THE PROBLEM

Once the main need has been established, we will focus on the appropriate procedure to give an alternative solution. Since the guidelines linked with the realization of this supervised work are based on the TMs design as well as the compilation of terminology of academic and legal texts, our area of work will be extended just across the developing of TMs the same as the terms used in these areas. There are several files that do not belong to the mentioned categories. In this sense, we did not take them into account. Once the type of sample has been delimited, we will just describe the characteristics of the selected texts.

At first, we should consider that the TMs and terms are, in many instances, repetitive. In this way, we focus on putting the TMs of the legal documents and the technical terms together, accordingly they were found in the course of the supervised work project, if they have appeared more than once or not. The recollection was made by using files such as *txt files* and sheets of *Word* and *Excel*, so, the links of the web pages where they were found will be included. Each certificate is classified according to

the language and issue, following a similar order to the previous translators used, although making some modifications.

Format of saving files based on the order proposed by previous translator:

Chart 2.1. Organization of texts according to former translators

Nombre	Fecha de modifica...	Tipo	Tamaño
 Cartas	09/08/2014 21:40	Carpeta de archivos	
 Certificados	10/08/2014 19:39	Carpeta de archivos	
 Convenios	09/08/2014 22:26	Carpeta de archivos	
 Formularios	09/08/2014 21:40	Carpeta de archivos	
 Página de texto	09/08/2014 21:40	Carpeta de archivos	
 Refrendaciones	10/08/2014 19:48	Carpeta de archivos	
 Títulos	09/08/2014 21:40	Carpeta de archivos	

Chart 2.2. New Organization of texts

▸ Equipo ▸ Data (D:) ▸ CETI ▸ Entrega escaneos ▸ QUEMAR ▸ Certificados

Nombre	Fecha de modifica...	Tipo	Tamaño
 Certificado de Conclusión Estudios	09/08/2014 21:40	Carpeta de archivos	
 Certificado de Matrimonio	09/08/2014 21:40	Carpeta de archivos	
 Certificados Académicos	09/08/2014 21:40	Carpeta de archivos	
 Certificados de Nacimiento	09/08/2014 21:40	Carpeta de archivos	
 Certificados de Notas	09/08/2014 21:40	Carpeta de archivos	
 Certificados Notariales	10/08/2014 19:40	Carpeta de archivos	
 Certificados Otros	09/08/2014 21:40	Carpeta de archivos	

Chart 2.3. Classification of files according the Language

▸ Equipo ▸ Data (D:) ▸ CETI ▸ Entrega escaneos ▸ QUEMAR ▸ Certificados ▸ Certificados de Notas ▸

Nombre	Fecha de modifica...	Tipo	Tamaño
 esp-ing	10/08/2014 19:37	Carpeta de archivos	
 ing-esp	10/08/2014 18:12	Carpeta de archivos	
 por-esp	10/08/2014 19:36	Carpeta de archivos	

About the extensions, we did not make any modifications. All files keep the following order of information: *Initial letter of the source language and the initial letter of the target language; kind of document; Full name of the customer and number of pages.*

Chart 2.4. Example of the files located in the folder of transcripts: ENG-SPA

Nombre	Fecha de modifica...	Tipo	Tamaño
 02 Certif bachiller notas Sra. Eileen (anverso).jpg	21/03/2014 12:38	Imagen JPEG	159 KB
 02 Certif bachiller notas Sra. Eileen (reverso).jpg	21/03/2014 12:42	Imagen JPEG	253 KB
 02 Certif bachiller notas Sra. Eileen.docx	13/06/2013 5:36	Documento de Mi...	25 KB
 03 Historial académico Sra. Eileen (anverso).jpg	21/03/2014 12:44	Imagen JPEG	202 KB
 03 Historial académico Sra. Eileen (reverso).jpg	21/03/2014 12:44	Imagen JPEG	215 KB
 03 Historial académico Sra. Eileen.docx	13/06/2013 6:00	Documento de Mi...	38 KB
 06 Expediente académico Escuela Park View - Camila F...	20/06/2013 6:45	Documento de Mi...	36 KB
 06 Expediente académico Escuela Park View - Camila F...	01/02/2014 15:02	Adobe Acrobat D...	301 KB
 15 Certif Notas Deinor Paniagua (1).pdf	01/02/2014 16:21	Adobe Acrobat D...	227 KB
 15 Certif Notas Deinor Paniagua (2).pdf	01/02/2014 16:22	Adobe Acrobat D...	315 KB
 15 Certif Notas Deinor Paniagua.docx	02/10/2013 9:36	Documento de Mi...	49 KB
 18 Certif Notas Yali Murillo.docx	29/11/2013 10:17	Documento de Mi...	30 KB
 18 Certif Notas Yali Murillo.pdf	01/02/2014 16:23	Adobe Acrobat D...	469 KB
 19 Certif. Notas Adriana Velasco.docx	23/09/2013 7:45	Documento de Mi...	21 KB
 19 Certif. Notas Adriana Velasco.pdf	01/02/2014 16:30	Adobe Acrobat D...	293 KB

The diagram of every text follows the patterns of the original ones. This is due to the policies of services that the Center of Translation has defined. The processes of manual template (currently the Center does not have any software to design them) take almost one half hour of the scheduled time for a translation. Obviously, this estimate is variable according to the complexity of each text. It is not feasible to compare the *translation* and *template* of a transcript of an American high school, with the *translation* and *template* of, for example, a birth certificate.

1.3.PROPOSAL IMPLEMENTATION

Facing this main problem in CETI, the lack of a specialized database as well as the TMs collected during the supervised work period, we consider developing a database in order to increase the productivity and efficiency of the translations. These fundamental needs are the goal of our project, due to its nature as facilitator. In order to develop it, the work will begin with a brief story of the different processes that solve the translation of those legal texts and the methodology applied to systematize them. Three essential steps were followed: 1) design of the templates or TMs 2) recollection of the recurrent terminology in certificates, diplomas and similar texts, and 3) translation of the texts.

1.4.CONCEPTUAL DESCRIPTION OF THE PROPOSAL

For the correct development of the proposal, it is essential to explain some concepts:

1.4.1. COMPUTATIONAL LINGUISTICS

First of all, we have to explain that this project and the concepts that it follows are part of a combination between the linguistics and computational sciences, it is known as: Computational Linguistics. According (Sandoval, 1998, pág. 13) “This area of study is basically related to: languages and computers” and it is an very ancient science, in fact, this is the result of the implementation of the computer aided translation, then, according to this author the first projects in Computational Linguistics appeared in the 50’s and the *Association for Computational Linguistics ACL*, were created on 1962. Thereby, according to (Sandoval, 1998) “Computational Linguistics and Natural Language processing are: the development of any computer software that pretends to be similar to the human linguistic ability”. This science is closely related to the Artificial Intelligence or AI that studies some programs or codes that can imitate some human behaviors and learn of them. There are two kinds of Computational Linguistics, the theoretical and the applied. According to (Wikipedia, 2010) Theoretical Computational Linguistics is based on Theoretical Linguistics and cognitive sciences such as the cognitive psychology and mainly the psycholinguistics, the objective of this area is to develop computable and linguistic theories that could be applied in computers. It could be seen mainly in the automatic analysis of linguistic corpuses. On the other hand and according to (Wikipedia, 2010) too, the Applied Computational Linguistics is oriented to the technology, it is focused on the practical aspects that could be applied in some computational instruments for emulating the linguistic behavior. There are a lot of characteristics of this branch, but the most important for this report and project are: The Applied Computational Linguistics searches automatically any piece of text in form and meaning, it could be applied in MTs, and it supports automatic and computer aided translation. This is the important part we are going to take into account.

1.4.2. COMPUTER AIDED AND AUTOMATIC TRANSLATION SYSTEMS

As we said above, it could be considered that translation is the origin of Computational Linguistics, so it is important to detail what are this specialized branches of translation nowadays. “The CAT¹³ tools give us the opportunity of improving the quality of translations and they save time and translators effort when they are translating scientific, technical and legal texts.” (Facultad de Traducción e Interpretación, Universidad de Las Palmas, 2012, pág. 5) This information and technology tools allow the translator to have a more productive system of working, improving the coherence and, as a consequence, the quality of their projects. To understand how this systems work conceptually, it will allow us to choose the most convenient tool for our work.

a) AUTOMATIC TRANSLATION

It is known as machine translation, so, “Machine translation is the application of computers to the task of translating texts from one natural language to another” (Lao, 2013, pág. 15). These tools, that can be bilingual or multilingual, translate texts in a single block in an automatic way and without intervention of the user in the process. These tools include:

- The above mentioned systems of automatic translations translate stored documents in the computer (through devices used in different applications or through localization by searching) such as fragments of a text inserted manually (terms, sentences or paragraphs) websites or e-mails. “This process determines the level of full and fuzzy matches in the text.” (Lao, 2013, pág. 15).
- Systems of automatic translation with speech recognition and three possible scenes, these ones include:
 - ✓ A dialog between two people who speak different languages, who set up communication through a system of automatic translation that translates in the two ways (entrance and exit with voice).
 - ✓ Transformation of a written text into oral language with natural voice of another language (entrance with text and exit with voice). This option is included in certain indexed tools as automatic translation systems.

¹³ Computer Aided Translation

- ✓ Transformation of oral language with natural speech into written language (entrance with voice and exit with text). (SDL Trados, 2011, pág. 2)

b) COMPUTER AIDED TRANSLATION

“They are referred to the Information technologies that help the translator, according to the text coherence, and the speediness of his/her job” (Facultad de Traducción e Interpretación, Universidad de Las Palmas, 2012, pág. 18). These kinds of tools are related to: Translation management systems, and terminology management systems, and localization systems.

- **TRANSLATION MANAGEMENT SYSTEMS**

“They are databases that contain segments of a text in a source language and its respective translations into one or more languages (Translation Memories)” (Lao, 2013, pág. 22). Those segments can be terms or sentences.

- **TERMINOLOGY MANAGEMENT SYSTEMS**

“This database allows a search of terms that is synchronized with the translation unit where the translator is working.” (Lao, 2013, pág. 22). It can be added to a TM system. The translator has the opportunity to increase the database with new terminology even to define new fields of term classification.

- **LOCALIZATION SYSTEMS**

“These ones are systems that support translation software or webpages including any of their items (dialog boxes, menus and messages), also their adjustment size processes or web interfaces and its match with a culture of a determined country or region.” (SDL Trados, 2011, pág. 3). TMs can be part of a localization system, even though in this section we will just mention the translation and management systems and the TMs.

1.4.3. TERMINOLOGY CORPORA

As a consequence, nowadays the computational sciences make a big difference in any profession, area or science, hence, the terminology is an important area of translation and then it has to be applied to this new trend.

First of all we have to define what a terminology corpus is, taking into account what a linguistic corpus is. “It is a broad and structured set of real examples of the language usage. It is a big set of texts created for specific necessities” (Wikipedia, 2010)

The computational sciences as (Sandoval, 1998, pág. 27) says, it has many important applications of this science, the one we need to explain is the backup extraction of information: “...their objective is to process the information stored in a textual database. The backup of information process the request of a user in a database and chose between all the texts according to his necessity... on the other hand, extraction of information is the area that “reads” big quantities of texts and recognize the important information inside them”. Then, some tools of Computational Linguistics sciences are necessary for the management of a terminology corpora: “Corpus management tools: the most prominent applications are the category labelers which give a syntactical category to any word of the corpus, and the syntactical analyzers which allows us to have a big collection of structured linguistic data” (Sandoval, 1998, pág. 28).

It is important to explain the relation of the terminology corpus according to the Computational linguistics “the necessity of process the collected terms in a reliable and economical way is the basis of some branches of the future of linguistics: the Computational linguistics. Nowadays, the corpora are collected and stored electronically.” (Wikipedia, 2010)

• CLASSIFICATION

- a) **Degree of generality:** It depends on the scale in which the terms were selected according to the different varieties of a language. It could be oriented to a restricted domain (legal, medical, etc)
- b) **Size:** It is determinate by the quantity of words in the case of the written language and the quantity of hours in the case of the oral one.
- c) **Representativeness:** it provides a model of the linguistic properties of the language analyzed in a credible way.

- d) **Authenticity:** This corpus is created in natural communicative conditions; it means poems, subtitles, etc.
- e) **Equilibrium:** It establishes the proportions of different sources according to certain criteria.

- **METHODS TO COLLECT TERMINOLOGY**

- a) **General:** It includes a broad variety of oral and written examples.
- b) **Specialized:** It is used in order to create corpora less broad, and represent a particular area of a language. This method establishes a especial codification in order to answer the necessities of the researchers.
- c) **Synchronic and Diachronic:** the synchronic method collects the terms in a unique period of time, an example of a product of this method is the Spanish corpus collected at the beginnings of the XIX century. The diachronic collects terms in different periods of time.
- d) **Mono-/bi and multilingual:** Monolingual pretends to collect all the terms in just one language, Bilingual and multilingual collects the next corpora:
 - **Comparatives:** terms can be compared in size and content
 - **Parallels:** all the terms have their equivalent in many languages
 - **Aligned:** It includes a fragment of the context of the term.

1.4.4. MACHINE TRANSLATION BASED ON CORPUS

According to (Wikipedia, 2010) “Machine translation from corpus linguistics is based in the analysis of real samples with its own translations”, then we can describe the two main kinds of methods:

- a) **Statistical Methods**

“The main objective of statistic machine translation is to generate translations from statistical methods based on corpus of bilingual texts.” (Laviosa, 1998, págs. 1-2) It means that if a software contains many corpuses it could make translations excellent because we can compare them and choose the appropriate one.

- b) **Based on examples**

“Machine translation based on examples is well known for using a bilingual corpus as the main source of knowledge” (Laviosa, 1998, pág. 2). It basically creates an analogical translation which solves a problem based on solutions of other similar problems.

1.4.5. TRANSLATION TOOLS

As exposed above, the principles of this Supervised Work are based on the use of translation tools — it means a specialized database— as a support for the translation process. It is essential to analyze each of them, taking into account their use and importance inside the frame of the central need of the institution. All the terms used in the course of our project have to be the basis of our proposal based on the use of technology as help for the translation.

The translator takes into account the materials and different pieces of knowledge that have an instrumental function and the ones that we refer as “tools”. First, we show a brief and concise classification of the traditional tools and the new ones. This basic selection will help us to define better the guide of this work.

1.4.6. BASIC RESOURCES OF DOCUMENTATION

In theory we talk about monolingual and bilingual dictionaries, encyclopedias, previous translations, internet, etc. As (Samuelson-Brown, 2004, pág. 52) says: “...there are excellent dictionaries that provide terminology in specialist subjects. The best advice I can offer with regard to what dictionaries you should acquire is to talk to experienced translators”, and it is very important for translators not only to take into account bilingual dictionaries, physical and online dictionaries, but also monolingual dictionaries, “Do not overlook the value of monolingual dictionaries in the source languages and their corresponding companion volumes in the target language. Although you may not immediately know the translation of a word and cannot find it in a bilingual dictionary, the explanation or definition in a monolingual dictionary is often very helpful particularly if it provides a simile that may be more familiar.” (Samuelson-Brown, 2004, pág. 52). Here, we should take into account that these tools can be of physical or digital nature. It is important to say that we are taking into account the most reliable ones such as Linguee, Proz.com, WordReference among others. Dictionaries are the most voluminous components. It is common to use specialized dictionaries for the translation of specific documents within a determined domain, mainly of:

- ✓ Medical domain
- ✓ Information-technology domain
- ✓ Financial domain
- ✓ Juridical domain

Electronic dictionaries, on the other hand, make possible:

- ✓ Faster information access.
- ✓ Better maintenance: Bringing up to date and enlargement of the entries of the dictionary.
- ✓ Capacity for different kinds of searching: Precise or by approximation through filler words/petwords (such as: *,?).
- ✓ Capacity of consultation of related information with the entries of the dictionary. For example the RAE dictionary checks the conjugation of the verbs
- ✓ Capacity for translation of specific texts
- ✓ Capacity for different kinds of search: *Search in entry, searches in list, assisted search, multiple searching, intervening related words search, search of anagrams and search by using abbreviations and check marks.*

We have to add, to these habitual manners of searching, more punctual ones, they, little by little, are going to be put into the electronic dictionaries. These searchers locate more specific information elements and more complex consultations based even on a semantic understanding of consult of the user and of the lexical information of the dictionary. Then, we are talking about a semantic improvement of the information.

1.4.7. TECHNOLOGICAL AND INFORMATICS TOOLS (TAO)

Here we distinguish the systems of computer-aided translation (i.e. Translation Memories and systems of terminological management).

1.4.7.1. TRANSLATION MEMORIES (TMs)

The TMs allow us to texts already stored in the database (Espinoza, 2012, pág. 74). They offer a good translation of total or partial coincidence between fragments of the new text and the saved fragments. The fundamental notion of the TM is that it

allows the translator to reuse or recycle segments translated previously. “A translation memory is a storehouse of texts in a language with its translations in other languages”¹⁴ (SDL Trados, 2011, pág. 3). The systems of TM show many advantages, compared with the traditional method to save the texts translated texts in paper even in an electronic format, just as a backup file, but not as a base for a later job “the Translation memories are shared between two or more translators and it allows them to translate the same project using the same translation memory in order to recover the previous translated units”¹⁵ (SDL Trados, 2011, pág. 3). However, one of the conditions in order to succeed in using TMs is repetitiveness. In this way, we shorten the working time and include the possibility of adding more projects within a determined period.

One stage makes us waste more time, and it is, without any doubt, the template of a document. We have superficially pointed out the guidelines that the development of a translation involves. So, we consider that it is better to take into account this aspect now.

We are going to show some examples of the translations that were developed during the course of this supervised work, where we show the way in which we made a translation pondering its characteristics. In addition, the Translation Center offers quality and commitment in its job, and it manages the politics of preservation of the original format of a document. This means that the similitude of the files translated with its original counterparts is a standard that should be done. Of course, we are talking about template.

But how is a translated document developed? What does template stand for? Answering these questions, we should have to take into account some definitions of the computational area. The template is the technique of formatting a text according to the pattern established by the graphic designers; in our case there are not qualified people to reach that issue.

Some basic and well-known programs are HTML and Word, this last is the most known. However, in our particular case, when a client gives us a designed text in template, the original ones or the scanned, and they want us to do the correction in the maquette they must have the files in Quark or InDesign (or perhaps Illustrator or

¹⁴ Own translation

¹⁵ Own translation

Freehand software) right done, that is to say, with the adequate format: Typographies, sizes, images, graphics, schemas, etc. Usually, it is not common in our country. It is not common to see customers that take their documents in a digital format. But it does not mean that this kind of services does not exist.

Translators have to extract the texts from that template graphic in order to translate and put the texts translated in ¹⁶*Quarkexpress* o ¹⁷*Adobe InDesign*. In order to be able to correct these proofs, the Revisers work in paper form or in *Word* or *PDF* (Acrobat Professional program).

Translating or correcting in the stage of template is a bonus that a good translator or a reviser could take advantage. However, in Bolivia there is not a Translation Center offering these kind of services. In fact, we have just some specialized and prestige entities of translation in our country. The application of this system and its use can be somewhat interesting and beneficial for the Translation Center because it is able to make it emerge on the market, not only in the academic area but also in unscientific areas. We were based on the present-day request and not in the potential request. In fact, the center of translation lacks a strong organization and a growth according to the requirements of the national market, even of the international one.

With the use of the translation tools, the vast majority of the translations could be made from template graphics or TMs already done and checked. Nevertheless, the majority of these works are not organized neither classified. There is a provisional record of the customer's name, number of reception, date, cost and other important data, but this kind of record is not put into a system, but registered in a specific notebook. At first, only there was only a single computer, nowadays there are at least four.

It is not only a problem of being able of making the layout, but also of translating or correcting it in a template. It is something that many people can learn in their way, but it is necessary to instruct them adequately in its use. We consider this error as a

¹⁶ **QuarkXPress** is a program of design with a graphic interface called WYSIWYG. The text and the graphs are managed as different elements (text and graphs boxes). Both kinds of boxes are changeable in a huge quantity of ways. It has two ways of operation: content (the commands are applicable inside the boxes) and a object (characteristics and location of the boxes).

¹⁷ **Adobe InDesign** (ID) it is an application for the digital composition of the pages, it is pointed to de graphic designers and experts in template.

point to take advantage and in this sense it could be helpful in the systematization of files and the implementation of technological issues in order to assist the translation.

This supervised work does not pretend to take all the elements of the use and development of TMs and template of texts, but the essential ones we believe. In the course of work at CETI, we have implemented the use of charts in Word software a primary referent for the elaboration of a TM. Each translated text has made up TM in Word, and its list of terms in Excel. This material is the basis of the glossary in legal and academic translated texts.

a) CHARACTERISTICS OF A TM SOFTWARE

According to (SDL Trados, 2011, pág. 18), a TMs software allows translators to translate a same project using the same TM in order to recover the pre translated units. It is miscellaneous because there are many providers and software programs and one finally it reduces the expenses that a translation involves.

b) SOME EXAMPLES OF TMs MANAGEMENT SYSTEMS

- **SDL TRADOS:** It is a very known software which works with TMs, and it contains a broad TM database called “translator’s Workbench”, as well as a terminological data base “Multiterm”, a converter of projects: “SDL Multiterm Convert”, an work interface: “SDL Tag Editor” and a library of quality control: “QZ Checker 3.0”
- **Déjà vu:** It includes filters of importation and exportation of TMs, and it supports a huge variety of formats or extensions in TMs. It contains an integrated tool of alignment, it could create a translation from many incorporated segments in different sentences.

1.5. TOOLS USED IN THE DEVELOPMENT OF THE SOFTWARE

Now we are going to explain the main technological components that compose our electronic text corpora, for this purpose we are going to take into account the concepts of (Facultad de Informatica Universidad Computence de Madrid, 2004, pág. 15):

- a) **Database:** It is a collection of many kinds of electronic information such as words, numbers, songs, etc. “The process of design of a database is involved in the life cycle of any software”, as we can see, it is maybe the most important part of our software. In this case, PostgreSQL program was used for developing the database.
- b) **HTML:** This kind of language of programming allows programmers to develop dynamic web pages, it could be modified, such as in the case of a requirement in the database.
- c) **SERVER:** It is the center of communication between the database and the webpage managers and the internet. It is the non physical tool in which we can host any program or system in order to be used or accessed from anywhere.
- d) **PHP:** It is a script Language of free codification. It is highly used in Apache web servers.
- e) **JSP:** It is a script Language based in JAVA technology, it could work with different users no matter if they have or not virtual machines of JAVA.

2. OBJECTIVES

Now, we are going to show the objectives that are the basis for this project and delimitate it.

a) GENERAL OBJECTIVE

To develop an electronic text corpora of the Translation Memories (TM) and the recollected terminology in the process of translating legal and academic texts from English into Spanish and vice versa, in order to be used at CETI for future translations and make them more reliable.

b) SPECIFIC OBJECTIVES

- To show the common problems in the standard translation design of TM at CETI.
- To draw word charts as basis for developing TMs in WORD processor software in order to create a corpus from the TMs of legal and academic texts.
- To build a corpus of all terminology and acronyms used in the supervised work in EXCEL software taking into account the most essential technical words obtained in recognized virtual dictionaries.

- To storage the TMs and the collected terminology in a database as a part of the electronic corpora.
- To upload this software in the server of UMSA
- To implement the electronic corpora into CETI in order to assess it.
- To adjust some possible errors in the software.

As mentioned before, we have the most important objective that has lead this supervised work, the other objectives, which are not less important, support realization of this work. On the other hand, we have to mention in the third objective an important issue, and it is related to the use of web pages or virtual dictionaries recognized as good sources of terminology, these tools are important for translating and giving them a high standard level, the pages used in this process are: Linguee, Proz and the TMs The European Union. Thanks to this kind of terminology, translators can growth in their translation standards instead of just their knowledge acquired in their education.

And finally these objectives are joined in order to reach the more reliable and of faster translation process as the same as a faster delivering of the translated texts through a specific contribution to the institution that will consist of a TMs corpus and a virtual glossary with the terminology checked and approved by the reviser, and it will be available for the consultation of any of the translators without searching the same terms again because it consumes more time.

Chart 1.1. SWOT Analysis

	WEAKNESSES	STRENGTHS
	Internal circumstances that restrict the growth capacity of CETI	Internal circumstances that help the growth
	Human Resources: 1. Lack in training	Institutional: 1. CETI has the institutional acknowledgement

<p>INTER NAL ANAL YSIS</p>	<p>about:</p> <ul style="list-style-type: none"> • Translation Tools • Text alignment • Glossary Creation • Development of Translation memories TM • Systematization of translation process. <p>Operational weaknesses:</p> <ol style="list-style-type: none"> 1. Lack of systematization of translation projects, the following and filing of them by the translators staff. 2. Lack of implementation of translation software, technical glossaries, dictionaries and TM. 3. Lack of automatic translators based of international rules. <p>Infrastructure:</p> <ol style="list-style-type: none"> 1. There is not enough space for new 	<p>and support of SEDUCA as the unique unit in charge of this kind of work.</p> <ol style="list-style-type: none"> 2. It has the opportunity to give some services to public and governmental institutions such as ministries. 3. It has the capacity of innovation and implementation of new programs.
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	<p>equipment and translators.</p> <p>2. There is no an informative web page about the translation services.</p>	
	<p>THREATS</p> <p>External circumstances that could stop the growth of CETI</p>	<p>OPPORTUNITIES</p> <p>advantage for CETI</p>
<p>EXTER NAL ANAL YSIS</p>	<p>1. Delay in the administrative procedures for the development and implementation of new services and agreements with certain institutions.</p> <p>2. Lack of economical resources to accomplish new projects, administrative staffs, materials and infrastructure.</p>	<p>1. CETI could become a strong translation institution with and human resources.</p> <p>2. It could have agreements with public and governmental ministries, etc., in order to translate laws, statutes, clauses and the Senate.</p> <p>3. It can give the next services:</p> <ul style="list-style-type: none"> • Internationalization of web pages. • Subtitling • Translation of Apps • Translation of videogames. • Translation of software • Building of glossaries for projects with public and private institutions. • Interpretation • Seminars about Translation <p>4. The agreement with external institutions such as the “CETI”</p>

3. INDICATORS

Now we are going to display all the specific objectives and their operational definition and the indicators in order to delimitate our project.

Chart 2.5. Indicators

OBJECTIVES	OPERATIONAL DEFINITION	INDICATORS
<ul style="list-style-type: none"> To show the common problems in the standard translation design of TM at CETI 	<ol style="list-style-type: none"> 1. Analysis of translation material from CETI. 2. Organization of previous TMs of academic or legal areas. 	<ol style="list-style-type: none"> 1. A SWOT analysis survey 2. Searching of the old material, including the physical ones, it means, TMs of former applicant in sheets.
<ul style="list-style-type: none"> To draw word charts as basis for developing TMs in WORD processor software in order to create a corpus from the TMs of legal and academic texts. 	<ol style="list-style-type: none"> 1. Analysis of the type of text. 2. First design of the template. 3. Final design of the template 4. Collection of the TMs 	<ol style="list-style-type: none"> 1. Legal, academic, letter, etc. 2. Design of the template using WORD processor software without a defined structure 3. Finished template with all the data and ready to be used for other translation projects

		4. Collection in the established order of the TMs of both applicants.
<ul style="list-style-type: none"> To build a corpus of all terminology and acronyms used in the supervised work in EXCEL software taking into account the most essential technical words obtained in recognized virtual dictionaries . 	<ol style="list-style-type: none"> Determination of terminology in a text Discrimination of the most important terminology based on the criteria of classification detailed in the theory. Development of terms equivalence. Assessment of that translated terms. Filling of a basic database in an Excel software sheet. 	<ol style="list-style-type: none"> Reading of the whole text taking the new words Division into two different types of terminology: specific and general terms. Equivalences in important online searchers like WordReference, Proz, Linguee, etc., Reviser Collection of both applicants approved terminology
<ul style="list-style-type: none"> To storage the TMs and the collected terminology 	<ol style="list-style-type: none"> Development of the terminology database. Filling database 	<ol style="list-style-type: none"> Construction of the Database in PostgreSQL software by the

<p>in a database as a part of the electronic corpora.</p>	<ol style="list-style-type: none"> 3. Storage of TMs. 4. Interfaces 	<p>computational engineer.</p> <ol style="list-style-type: none"> 2. Filing of the empty database in order to be applied to the interfaces. 3. Classification of TMs inside Dropbox software. 4. Creation or interfaces through programming languages such as PHP, HTML etc.
<ul style="list-style-type: none"> • To upload this software in the server of UMSA 	<ol style="list-style-type: none"> 1. First implementation of the software as a proof 2. Procedures for upload this software 3. Proof of the system 4. Training of the CETI staff 5. Notification for the Dean 	<ol style="list-style-type: none"> 1. Usage of a common computer in order to proof this software. 2. Letters for the Head of the Linguistics Department in order to process the uploading of our system into the server of UMSA 3. Application of some proofs with the engineer 4. Consolidation of a date for training translators and the Head of CETI as the

		<p>administrator</p> <p>5. A letter for the Dean in order to inform her about the existence of this software for doing the respective backups.</p>
<ul style="list-style-type: none"> To implement the electronic corpora into CETI in order to assess it. 	<ol style="list-style-type: none"> 1. Implementation of the system 2. Assessment of quality 	<ol style="list-style-type: none"> 1. Proofs in the orders, interfaces and terminology 2. Evaluation of the system through usage.
<ul style="list-style-type: none"> To adjust some possible errors in the software. 	<ol style="list-style-type: none"> 1. Recognition of problems 2. Modification or correction of the problems 	<ol style="list-style-type: none"> 1. Analysis and classification of the problems in order to classify them into serious and light 2. Adjustment of errors taking into account the participation of the engineer

4. ACTION STRATEGIES

A system of actions was developed in order to solve the problem proposed in this work.

4.1. STAGES

We identify then the following ones: analysis, terminology collection, translation memories design, software development, system installation, and the training stage. Now, we are going to show in detail each step.

a) ANALYSIS STAGE

All needs of the Translation Center are going to be analyzed in this stage. In this respect, we will spend a month, in which all the common activities of the Center referred to the text translation are going to be analyzed, including the existing material at the center as well as the existing memories of translation, glossaries, etc.

On the other hand, the time spent in the reception and its subsequent delivery of each text will be examined. It is expected, considering the above, to show that too much time is spent in delivering a translation without the use of recognized terminology in addition to established TMs.

b) STAGE OF TERMINOLOGY COLLECTION

Once the first documents were received for its translation, the terminology is collected. All the terms of its respective area, e.g. legal terminology, will come together, and then, the reviser will review them. When approved, they are inserted in a code-restrained database. It is important to mention that program is one of the simplest because our limited knowledge. Once the terminology is approved by the reviser it is introduced to the trial database, the information is complement with the link where this term could be found in order to support them aside from the approval of the reviser.

c) STAGE OF TRANSLATION MEMORIES DESIGN

Next to the collected terminology, the TMs of the documents of legal and academic typology that are more commonly used will be designed, that is, documents such as Birth Certificates, Certificates of Criminal Records, Identity Cards, Transcripts of UMSA, Transcripts of schools, among others.

Once designed, they will be distributed to some of the applicants to be used and for instance, measuring time spent in the translation of a document with a MT and another without it. It is expected that this will provide important concerned data to the present project.

d) STAGE OF SOFTWARE DEVELOPING

Once our Supervised work ends, those TMs will be collected in a corpus and the terminology will be introduced in a professional database, at the same time the interfaces of the system will be designed, for example the windows of login, entering, exit, searching, etc.

e) STAGE OF THE SYSTEM INSTALLATION

When you have done this, the system will be loaded in the University webhoster or server. Following this aspect, applications must be done, all letters addressed to the Career Director, the Dean and Engineers in charge of TIC. Once the work is done, the webhoster will allow the system to be used from all the computers of CETI as well as any one that has access to the net.

f) TRAINING

People in charge of the Translation Center will attend to a System management training course as well as the freelancers.

4.2. LINES OF ACTION

Translation is our main goal, being the most important field of this project. Moreover, any translation made and used as MT data is specifically legal and academic (transcripts and certificates), not including MT of different fields such as poems, books, booklets, etc.

4.3. TECHNIQUES

In our task for collecting the translation terminology, we required a specialized searching of terms. We surf the internet, looking for any specific webpage or forums of legal translation. Concerning MTs, we apply layout techniques in the Microsoft WORD software using charts.

4.4. TOOLS

In the stage of terminology collection, we use programs and specialized forums such as Proz.com, WordReference blogs, etc., while we use EXCEL in order to compose the first database.

We are not using Quarkexpress or Adobe InDesign for making the design of MT. Both programs are specialized in design and layout and that goes beyond the scope of this work. Because its cost and area of specialization, any applicant is not fully qualified for using them right now. The developing program is therefore Microsoft Word software using moving files.

4.5. MATERIALS

Materials include desks, paper, pens, pencils as well as computers, printers and internet service, all of them provided by the CETI.

5. ACTION PLAN

This is the chart in which we describe our objectives and what actions we develop in order to achieve

Chart 2.6. Action Plan

OBJETIVES	ACTIVITIES	METH OD	TIME
<ul style="list-style-type: none"> To show the common problems in the standard translation design of TM at CETI 	<ol style="list-style-type: none"> We collect the previous TMs of other applicants of translation We put them in order according to the area, we mean the texts impressed. 	Descripti ve	The first month
<ul style="list-style-type: none"> To draw 		Descripti	All the months of the guided work.

<p>word charts as basis for developing TMs in WORD processor software in order to create a corpus from the TMs of legal and academic texts.</p>	<p>5. Once the texts in legal and academic areas were ordered, we design the TMs in WORD software, which means, we design the pattern for their later use in the translations.</p> <p>6. These TMs are shared between both applicants for making a corpus of them in order to measure a translation using this corpus in contrast with the other applicants who do not use them.</p>	<p>ve</p>	
<ul style="list-style-type: none"> To build a corpus 	<p>6. The terminology</p>		

<p>of all terminology and acronyms used in the supervised work in EXCEL software taking into account the most essential technical words obtained in recognized virtual dictionaries</p>	<p>and the acronyms of both types of texts are gathered and after a process of evaluation we collect all the new terms.</p> <p>7. We read the texts and we find the whole terminology, we separate it in two categories, the common words and the technical words that have to be included in the database.</p> <p>8. We search their equivalents in the L2 language in some recognized</p>	<p>Descriptive</p>	<p>All the months of the guided work.</p>
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	<p>dictionaries such as: Linguee, Proz.com, etc.</p> <p>9. Once the terminology is subjected to an evaluation, it is introduced into a spreadsheet of Excel software for its classification in alphabetical order and to form the data base.</p>		
<ul style="list-style-type: none"> To storage the TMs and the collected terminology in a database as a part of the 	<ol style="list-style-type: none"> The whole information is gathered. We search an computing engineer. The system is developed. The TMs and the 	<p>Descripti ve</p>	<p>After the six months of working</p>

<p>electronic corpora.</p>	<p>terminology are stored</p>		
<ul style="list-style-type: none"> To upload this software in the server of UMSA 	<ol style="list-style-type: none"> We follow the primary procedures in order to host the software in the UMSA server. Once it is hosted, we implement it and train the CETI staff of translators and the Head 	<p>Descriptive</p>	<p>After the creation of the software</p>

<ul style="list-style-type: none"> To implement the electronic corpora into CETI in order to assess it. 	<ol style="list-style-type: none"> After the training of the staff it could be assessed by making some proofs in the daily usage of the software We make the analysis of the found problems. 	Descriptive	After the uploading of the software
<ul style="list-style-type: none"> To adjust some possible errors in the software. 	<ol style="list-style-type: none"> We define the kind of problems, if it is serious or not. We correct them 	Descriptive	After the period of proof of the software

5.1. WORK PLAN

Now we are going to describe chart 2.6.

Chart 2.7. Action Plan Description

<p>OBJECTIVES</p> <ul style="list-style-type: none"> To show the common problems in the standard translation design of TM at CETI. To draw word charts as basis for developing TMs in WORD processor software
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in order to create a corpus from the TMs of legal and academic texts.

- To build a corpus of all terminology and acronyms used in the supervised work in EXCEL software taking into account the most essential technical words obtained in some recognized virtual dictionaries.
- To storage the TMs and the collected terminology in a database as a part of the electronic corpora.
- To upload this software in the server of UMSA
- To implement the electronic corpora into CETI in order to assess it.
- To adjust some possible errors in the software.

ACTIVITIES

At first, the following activities were planned:

To collect physical or digital material found at the Translation Center office in order to analyze and test. For such purpose, documents were selected by affinity and MTs applied were analyzed by studying their layout.

Second, MTs are expected to be done. Once materials are looked and stored, we select which ones are more required by society (legal and academic texts) and design their layout. Then we test them and take special care of the spent time for the translation of a text using MTs and the time expected for translating a similar text without using it.

The third stage involves the collection of terminology from every translation done. Reviser is in charge of test them. Once it is done, all tested terminology is moved on Excel tables as a terminological corpus.

And finally, terms are collected from both applicants terminology (Daniela Céspedes and Noelia Prieto) then the structure of the system or glossary is designed and tested. Once this step has been done, we require an information technology specialist or engineer for advising or supervising. After the database is designed, we are ready to start its development. We continue with the interfaces design, and then we combine them with the database. When the system is ready and works successfully, a demo which includes the program is shown. This CD is

sent to CETI office looking forward an agreement with the Linguistics department office in order to obtain a free access to the UMSA network. If we succeed uploading the system, all members of the Translation Center staff may attend a lecture about the system management. After that implementation, it could be assessed and finally it could be adjusted in order to make this system totally useful.

METHOD

We follow a descriptive method due to the nature of our project. Now we mention in detail the techniques used from third to fourth stages:

In the third stage, we set both pieces of terminology in a single Excel table which includes the source links put altogether in an alphabetical row. When it is done, both applicant students meet and agree on a brainstorm, even though the basic structure of the system was already planned. We reconsider possible things that may be included if necessary. The design is partially concluded and shown in graphs and tables.

When this step is finished, the printed design is sent to an area specialist who is in charge to consider if the project works or not. Thus, the software is tested and approved.

In order to start the system development, we design a database. In short, we fill the tables with the data that is stored in excel tables including the reference links. Then we make the most important tables by following the software.

Once the database has been done, we elaborate the interphases and windows to be shown by users, the basic ones are just developed by the adequate encoding, though searching, adding, deleting and modifying interphases are developed. .

Finally, database and interfaces are linked. Thus, you can test the insert, modifying search or delete actions carefully in order to burn the database in a CD.

Now in our next stage, a CD is sent to CETI office according to its regulations mentioned on the letter of intent and following the third point that is to provide a useful project for the institution. It is expected to receive an acceptance from CETI, so then we go to the Linguistics and Languages department in order to get

an agreement for uploading the system in the UMSA network. In this way, any worker or translator may access this functional system from any CETI computer in service.

We need trained workers and the translation staff in using this new software once the software is successfully uploaded in the server, hence, it could be implemented in a period of proofs and finally the adjustments could be done.

WORKING TIME

The activities, the method, the resources, and the moment or time are already settled, also the people in charge to accomplish this job. Now we are going to itemize each aspect, detailing the process of development of this supervised work.

The period of the supervised work lasted six-months, beginning on May 27, 2013 and concluding on November 27 of the same year. Eight continuous hours of working were completed from Monday to Friday, so we had to work 160 hrs per week as an obligatory requirement. We stayed in the Translation Center from the 8 am to 4 pm. However, we used to make some translations called “*express*”, with a short and limited period of time for delivering, and that is why the period of working became longer than just 8 hours because we had to finish the work. The applicants and the reviser had to adjust themselves for accomplishing those special request of translations.

Most of the texts to be translated were assigned to the translators from noon on. Without a doubt, it was because many clients did not have enough time, and because the clients were students and people with urgency of their translations.

During 6 months, we registered every term in Excel software in order to have them sequentially computerized and organized. The data were updated in separated pages of Excel, according to the client. The previous applicants just saved the terminology in files of Word software as a database. And because there was not a previous data bank, the process of translation became more difficult in the Translation Center.

A week before the ending of the supervised work, we collected all the terms saved

in the computers. At the end of this period, we gave a CD with a digital copy of all the works to the head office of CETI. Currently, all the collected data in the period of the supervised work is used in building our glossary.

EVALUATION

Now, we are interested now in describing the activities, techniques and instruments used in the course of our supervised work in the translation center. We should mention that we worked according to the way from working learned of the previous applicants. The process of reception and record of the customers was similar until the ending of the six months. However, we modified different aspects in the digital storage of the texts. We chose a new classification for the files, by developing different digital folders. The hierarchy was managed in different orders:

1. Distribution according to the kind of texts: certificates, academic degrees, letters, etc.
2. Distribution according to the similarity inside the same kind of texts, such as transcripts, notary certificate, certifications, etc.
3. Distribution according to the source language and target language: English-Spanish; Spanish-English.

This hierarchization does not modify the classifications of the texts made previously but it shows a more exact organization according to a specific request, taking into account the type of text that was received.

Furthermore, we use Word and Excel software simultaneously. The new works were developed using, a previous translation with similar characteristics as a base. We implement the use of TMs in the texts that did not have one TM by doing a new one with charts in Word but besides it, we modified the previous TMs stored at the Translation Center.

The use of Excel was limited for saving the terms, its translation and the source from internet for that translation, if it was the case.

PEOPLE IN CHARGE

Ángela Daniela Céspedes Baptista and Noelia Yhosaine Prieto Herbas were in charge of receiving, collecting, giving a layout, printing and stamping every document checked by the CETI office, even its delivering. This process was constant during the whole six months of the supervised-work in the CETI. Every document was registered in a notebook, specifying the personal information of each customer, the date of entry and delivering, type of service and any relevant information. Once we have officially received and registered, them both applicants were in charge of translating the document. We distributed the works fairly, preventing any error of concordance in the final translation of a specific customer. Since the beginning, applicants joined and work together. They fulfilled the working time without problems.

The final revision of works was in charge of the reviser. Any observations made by the specialist must be improved or modified, so then translations should follow the standard. Since many works were from legal and academic fields, those ones must be revised carefully. Final works were reinforced by each of these observations, so once stored in digital folders; they were available as reference to any other work that shared translation-like patterns. This way of working lets you cut down the average spent time successfully, dismissing a complete future revision of the new translation project.

CHAPTER III

DEVELOPMENT OF THE PROPOSAL

1. WORK SCHEDULE

We would like to mention the schedule of our supervised work:

The description of activities developed during the *Supervised Work* is explained in this chapter.

After having finished our studies in the *Department of Linguistics and Languages*, we had to choose a graduation modality in order to conclude our studies, so, we

opted for the *Supervised Work* modality in CETI. Afterwards, we passed and test and accomplish an agreement with this institution.

In the agreement it was established that the translator had to work in the institution 8 hours a day, from 08:00 to 16:00 and; 5 days a week, from Monday to Friday; for a semester. This work has been developed from May 27th to December 27th, 2013. So, we translate 382 texts, Ángela Céspedes translated 202 texts and Noelia Prieto 180 texts.

Now, we are going to present the following chart of the activities developed through that 6 months:

2. SEQUENCE OF ACTIVITIES

During the development of the proposal' steps were defined in order to solve the problem of standardized TMs and a virtual glossary that could make the job of the Translation Center more efficient.

The action steps that have been followed during the development of the Supported work are the following:

2.1. ADMISSION OF THE DOCUMENT

The developed system was used with the client in which we get the whole information of the document to be translated, this information could be:

- a) The type of text: Certificate, diploma, letter, etc.

- b) Request: Translation or authentication.
- c) Explanation of some documents: In the case that documents are partially illegible or written by hand, we work with the customer who helped with some words that could not be read in order to make the translation be reliable.
- d) Agreement on the delivery dates: The customer and the staff of the Center agree in a date for the delivery of the translated or authenticated text.

2.2. TEXT READING

Before proceeding to translate, in this stage known as pre-translation process, we read the whole text, and after that we do a second reading in order to extract all the unknown words.

2.3. DETERMINATION OF THE TERMINOLOGY

- a) Typing all the words in a common page of Microsoft Word
- b) Once this was made, we classify all the words in two Excel charts, one with the terminology of the area or line of the text. For example, CREDIT: “créditos” or “nota”. Besides, there was a second Excel chart in which we introduced all the common vocabulary: prepositions, conjunctions or words that were unknown by the translator.
- c) Finally we looked for the equivalents of the word in the target language in physical dictionaries and online ones. Serious and reliable online dictionaries such as: Linguee, Proz.com and WordReference among others.

2.4. TRANSLATION

- a) The drawing of the text, it means, we give a format (the most precise possible) of the original text through charts in a document format (.doc) in order to prevent that the document might upset the configuration, or lose its equilibrium, esthetically speaking, making the final product poor.
- b) Once the whole drawing was accomplished, we proceeded to translate each fragment by using the previous terminology we found and putting it into each field of the chart.
- c) The last step in this stage the text was checked for the last time and it was printed as a first draft.

2.5. CHECK-UP

Once it was translated by the applicants, the reviser of the language (English or Portuguese) proceeded to give the text a final check-up and to make the necessary corrections to the translation. It was an agreement with the applicant in order to set the use of certain word, it was corrected and finally printed once more in special or headed papers, it was stamped and signed, and finally it was delivered in the precise date.

2.6. AFTER DELIVERING

Once the customer takes his documents and gives his approval of the translations, we both made a categorization of the terminology and we put it in an Excel chart with its translation and the web page where it had been localized.

Generally, the instruments and materials were the following: Physical dictionaries, a computer connected to internet, a printer, recycled paper for the stage of first draft and headed paper for the final delivery.

Then, describing the texts that were considered for the realization of this project, we will describe each element of the translation by using examples of the same.

• APPLICATION OF THE SEQUENCE IN TRANSLATED TEXTS

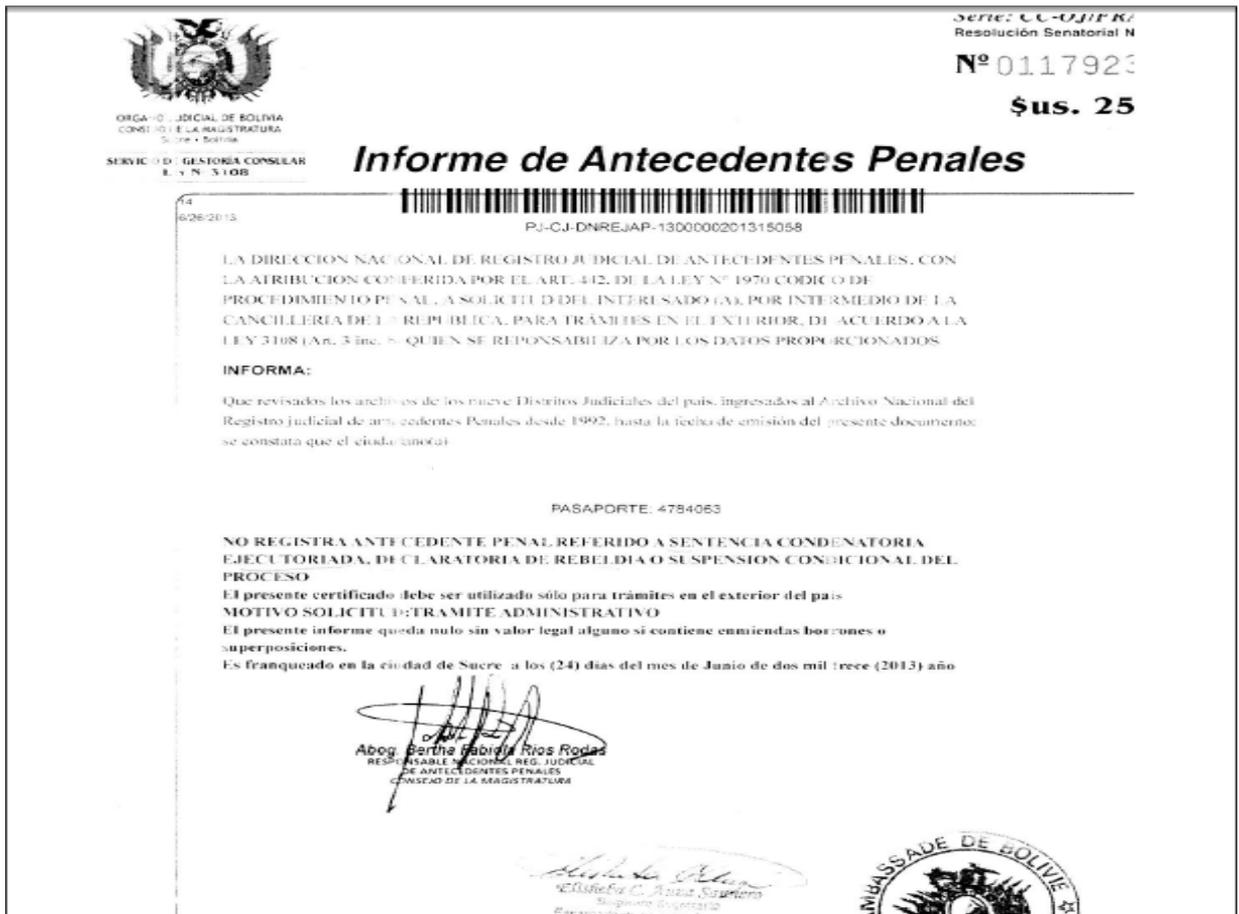
After describing the sequences of our activities in order to reach a final product, we are going to show them in the process of translating. For this purpose, we are going to display some examples of translations developed during our supervised work.

TRANSLATION OF ACADEMIC OR LEGAL TEXTS AS LETTERS

This kind of texts has the format of a simple letter, that is why the creation of their templates are quite easy. Then, For our first sample, we will take into account a text that was translated form Spanish into English.

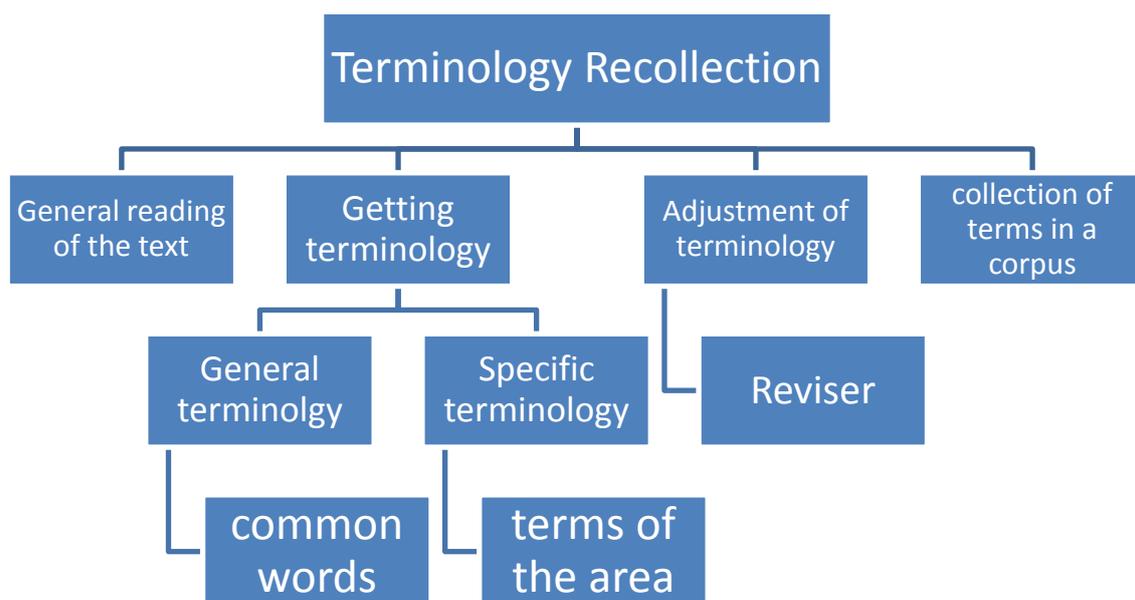
We should take into account that the translation of a text that is not in the mother tongue of the translator, into a second language that is familiar; could be more complicated process than in vice versa. Such as the next example:

Figure 3.1. Example of a simple legal text in Spanish for being translated into English



First of all, we are going to schematize the process of terminology recollection:

Figure 3.2. Schema of terminology recollection process



In the translation of a Criminal History Report we developed these steps:

1. A general Reading of the text.
2. Getting terminology:
 - a) Terms of the area, in this case legal:

Chart 3.2. Specialized terminology of the criminal report

Término L1	Equivalencia L2
Antecedentes Penales	Criminal History
Dirección Nacional de Registro Judicial de Antecedentes Penales	The National Court of Criminal History Record
Código de Procedimiento Penal	Code of Criminal Procedure
Cancillería de la República	Ministry of Foreign affairs
Archivo Nacional	Nacional Record
Sentencia Condenatoria Ejecutoriada	Conviction
declaratoria de Rebeldía	Judicial Sentence of Rebellion
Suspensión Condicional del Proceso	Judicial Suspension Process

- b) Terms or words unknown by the translator:

Chart 3.3. Common terminology of the Criminal Report

Término L1	Equivalencia L2
Atribución conferida a solicitud de emisión	Ascription given by By request
el presente certificado	Issuance This certification
enmiendas	Corrections
borrones	Smudging
superposiciones	Overlapping

3. Once this text followed this terminological process, it is finally corrected by the reviser and this is the final result:

Figure 3.3. Final translation of a Criminal Report



Bolivia Justice System
Judicial Council
Sucre-Bolivia

Consular Administration
DecreeN° 3108

Serie : CC-OJ/FRAP-20
Senate Decree N° 015/20
N° 0117923
\$us. 25.-

Criminal History Report

(Bar Code)

THE NATIONAL COURT OF CRIMINAL HISTORY RECORD, WITH THE ASCRIPTION GIVEN BY ARTICLE 442 OF LAW NO. 1970 OF THE CODE OF CRIMINAL PROCEDURE, BY REQUEST, THROUGH THE MINISTRY OF FOREIGN AFFAIRS, FOR OVERSEAS PROCEDURES, ACCORDING TO THE LAW 3108 (ARTICLE 3, SUBPARAGRAPH B) WHO IS RESPONSIBLE FOR THE PROVIDED DATA.

GIVES THE NEXT INFORMATION:

The reviewed files of the nine justice districts of the country, entered into the national record of judicial file of criminal record since 1992, until the issuance date of this document; confirms that:

(NAME)

PASSPORT NUMBER 4784063

DOES NOT HAVE A CRIMINAL RECORD IN RESPECT TO CONVICTION, JUDICIAL SENTENCE OF REBELLION OR CONDITIONAL SUSPENSION PROCESS.

This certificate has to be used just for foreign procedures.

REASON FOR THE REQUEST: ADMINISTRATIVE PROCEDURES

This report is null without legal value if it shows corrections, smudging or overlapping actions.

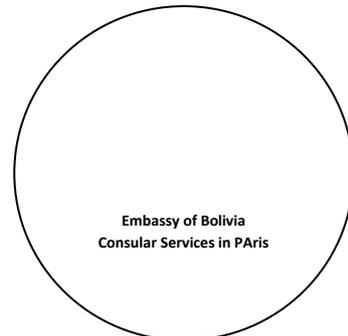
It is sealed in the City of Sucre at 24 days of June of two thousand thirteen (2013)

(illegible sign)

Seal: Atty. Bertha Fabiola Rios Rodas
National Designee of the Court of Criminal History Record
Judicial Council

(illegible sign)

Seal: Elisheba C. Auza Saunero
Designee of consular Affairs
Embassy of Bolivia in France



Address: 290, On the Corner of Luis Paz and Ravelo street

Judicial Council Building 3rd floor - tel. (fax) 591-4-6913224 - SUCRE – BOLIVIA

It is pertinent to stand out that because the original text had the format of a letter, it was not necessary to submit it to the process of drawing charts.

TRANSLATION OF TEXTS WITH SOME DIFFICULTY IN TEMPLATES' DESIGN

This kind of texts has some grade of difficulty in its designing, therefore, it is necessary to develop a memory translation but it is not a hardly task because its format is relatively easy.

Let's see the example:

Figure 3.4. Catolica University transcript

UNIVERSIDAD CATÓLICA BOLIVIANA "SAN PABLO"		Unidad Académica Regional La Paz		CERTIFICADO DE CALIFICACIONES		
Estudiante:			Serie: D			
Doc. Identidad:			Número: 001678			
Regional: UNIDAD ACADÉMICA LA PAZ						
Carrera: INGENIERIA AMBIENTAL						
Fecha Emisión: 06/06/2013 10:20						
GESTIÓN	SIGLA	MATERIA	CRED	NOTA	LITERAL	
2-2008	CAR-104	PENSAMIENTO CRÍTICO	5	73	SETENTA Y TRES	
2-2008	CIV-112	DISEÑO TÉCNICO COMPUTARIZADO	5	79	SETENTA Y NUEVE	
2-2008	INF-101	INTRODUCCIÓN A LA PROGRAMACIÓN	6	74	SETENTA Y CUATRO	
2-2008	MAT-132	CÁLCULO I	5	60	SESENTA	
2-2008	QMC-181	QUÍMICA GENERAL I Y LABORATORIO	7	71	SETENTA Y UNO	
V-2009	REL-158	RE-CREAR LA VIDA	5	80	OCHENTA	
1-2009	FIS-171	FÍSICA I Y LABORATORIO	7	59	CINCUENTA Y NUEVE	
1-2009	IMA-202	INTRODUCCIÓN A LA INGENIERIA AMBIENTAL	5	90	NOVENTA	
1-2009	IQM-208	BALANCES DE MASA Y ENERGIA	5	61	SESENTA Y UNO	
1-2009	MAT-223	ÁLGEBRA LINEAL	5	52	CINCUENTA Y DOS	
1-2009	MAT-233	CÁLCULO II	5	54	CINCUENTA Y CUATRO	
1-2009	QMC-283	QUÍMICA ORGÁNICA Y LABORATORIO	7	78	SETENTA Y OCHO	
IN-2009	REL-213	EL FUTURO ES AHORA	5	98	NOVENTA Y OCHO	
2-2009	IMA-200	INTRODUCCIÓN A LA ECOLOGIA	5	86	OCHENTA Y SEIS	
2-2009	IMA-211	QUÍMICA AMBIENTAL	5	73	SETENTA Y TRES	
2-2009	IQM-205	QUÍMICA ANALÍTICA Y ANALISIS INSTRUMENTAL	7	61	SESENTA Y UNO	
2-2009	MAT-362	ANÁLISIS NUMÉRICO I	5	79	SETENTA Y NUEVE	
2-2009	QMC-285	FISICOQUÍMICA Y LABORATORIO	7	59	CINCUENTA Y NUEVE	
1-2010	IMA-321	TRATAMIENTO DE RESÍDUOS SÓLIDOS	5	73	SETENTA Y TRES	
1-2010	IMA-352	LEGISLACIÓN AMBIENTAL	5	93	NOVENTA Y TRES	
1-2010	IMA-391	EVALUACIÓN DEL IMPACTO AMBIENTAL	5	75	SETENTA Y CINCO	
1-2010	IQM-301	TRANSFERENCIA DE CALOR	5	68	SESENTA Y OCHO	
1-2010	IQM-331	INGENIERIA ECONOMICA Y TOMA DE DECISIONES	5	57	CINCUENTA Y SIETE	
1-2010	MAT-235	ECUACIONES DIFERENCIALES ORDINARIAS	5	72	SETENTA Y DOS	
2-2010	IMA-331	MEDIO AMBIENTE Y SOCIEDAD	5	92	NOVENTA Y DOS	
2-2010	IMA-342	GEOGRAFIA ECOLÓGICA DE BOLIVIA Y MANEJO DE ÁREAS	5	89	OCHENTA Y NUEVE	
2-2010	IMA-372	AUDITORIA AMBIENTAL	5	85	OCHENTA Y CINCO	
2-2010	IQM-221	CINETICA QUIMICA Y DISEÑO REACTORES HOMOGÉNEOS	5	77	SETENTA Y SIETE	
2-2010	IQM-231	ANÁLISIS Y DISEÑO DE EXPERIMENTOS	5	82	OCHENTA Y DOS	
2-2010	IQM-241	TERMODINAMICA QUIMICA	7	60	SESENTA	

This example belongs to an academic Transcript in the Catholic university in the Environmental Engineering department, and like the Criminal Report, the following steps in terminology recollection are the same as it is shown above in Figure 3.3.:

1. General Reading
2. Getting terminology
 - a) Terms of the area, in this case technical:

Chart 3.4. Specialized terminology of the Catolica University Transcript

cálculo I	Calculus I
pensamiento Crítico	Critical Thinking

Recrear la vida	Re-create life
balances de masa y energía	mass and energy balances
tratamiento de residuos sólidos	solid waste treatment
transferencia de calor	heat transfer
ecuaciones diferenciales ordinarias	ORDINARY DIFFERENTIAL EQUATIONS
cinética química y diseño de reactores	CHEMICAL KINETICS AND HOMOGENEOUS REACTORS DESIGN

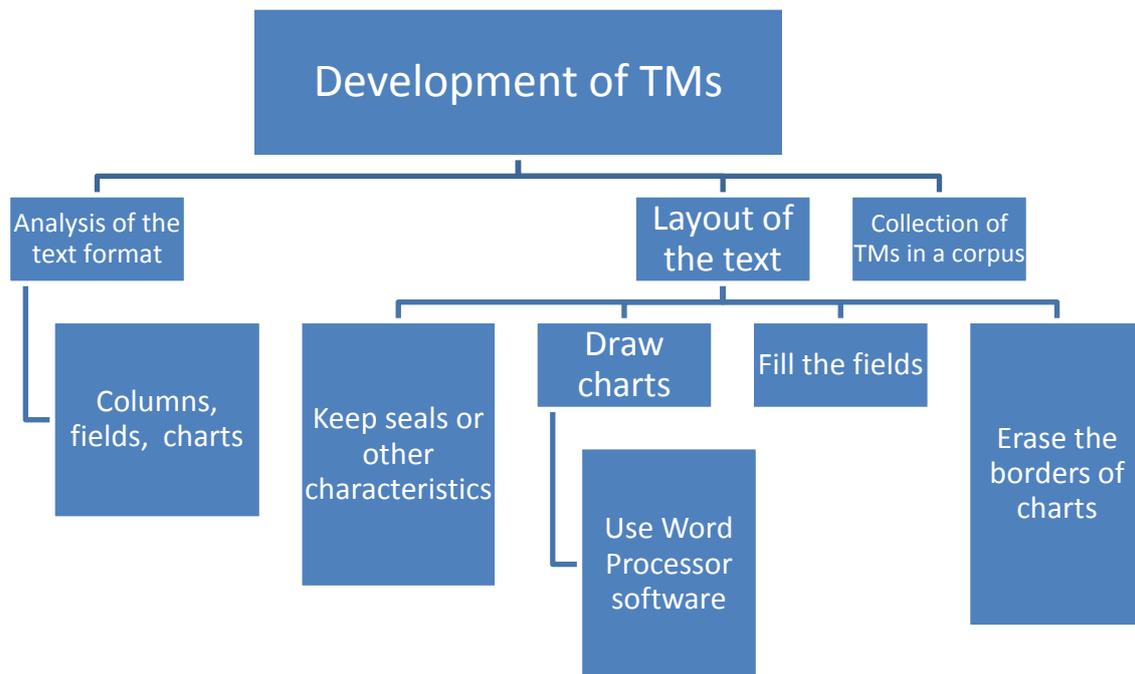
b) Common Terminology

Chart 3.5. Common terminology of the Catolica University Transcript

certificado de calificaciones	Academic Transcript
Serie	serie
Nota	grade

c) Right after finishing the process of terminology selection the charts drawing of the text was developed in order to improve the quality of the translation, so it will be good and it will look very similar to the original. Now, we are going to schematize the process of TM designing

Figure 3.5. Development of TMs



After the analysis of text format we layout the text using WORD program, now we are going to display a template in its first stage, it means, without filling the fields:



d) As we can see, this template is quite easy to drawing. Once the process of Drawing was finished the text was checked-up by the reviser, and the fields were filled, so this the final result:



“San Pablo” Catholic Bolivian University

Regional Academic Unit La Paz

ACADEMIC TRANSCRIPT

Serie: D

Number: 001678

Student: (Name)

Identity Card Number:

Regional Unit: academic Unit La Paz

Department: Environmental Engineering

issuance date: 06/06/2013 10:20

Year			Cr	Grade	Spell Out
2-2008	CAR-104	CRITICAL THINKING	5	73	Seventy-three
2-2008	CIV-112	COMPUTER AIDED TECHNICAL DRAWING	5	79	Seventy-nine
2-2008	INF-101	INTRODUCTION TO COMPUTER PROGRAMMING	6	74	Seventy-four
2-2008	MAT-132	CALCULUS I	5	60	Sixty
2-2008	QMC-181	GENERAL CHEMISTRY I AND LAB	7	71	Seventy-one
V-2009	REL-158	RE-CREATE LIFE	5	80	Eighty
1-2009	FIS-171	PHYSICS I AND LAB	7	59	Fifty-nine
1-2009	IMA-202	INTRODUCTION TO ENVIRONMENTAL ENGINEERING	5	90	Ninety
1-2009	IQM-208	MASS AND ENERGY BALANCES	5	61	Sixty-one
1-2009	MAT-223	LINEAR ALGEBRA	5	52	Fifty-two
1-2009	MAT-233	CALCULUS II	5	54	Fifty-four
1-2009	QMC-283	ORGANIC CHEMISTRY AND LAB	7	78	Seventy-eight
IN-2009	REL-213	FUTURE IS NOW	5	98	Ninety-eight
2-2009	IMA-200	INTRODUCTION TO THE ECOLOGY	5	86	Eighty-six
2-2009	IMA-211	ENVIRONMENTAL CHEMISTRY	5	73	Seventy-three
2-2009	IQM-205	ANALYTIC CHEMISTRY AND INSTRUMENTAL ANALYSIS	7	61	Sixty-one
2-2009	MAT-362	NUMERICAL ANALYSIS I	5	79	Seventy-nine
2-2009	QMC-285	PHYSIOCHEMICAL AND LAB	7	59	Fifty-nine
1-2010	IMA-321	SOLID WASTE TREATMENT	5	73	Seventy-three
1-2010	IMA-352	ENVIRONMENTAL LAW	5	93	Ninety-three
1-2010	IMA-391	ENVIRONMENTAL IMPACT ASSESSMENT	5	75	Seventy-five
1-2010	IQM-301	HEAT TRANSFER	5	68	Sixty-eight
1-2010	IQM-331	ECONOMIC ENGINEERING AND DECISION-MAKING PROCESSES	5	57	Fifty-seven
1-2010	MAT-235	ORDINARY DIFFERENTIAL EQUATIONS.	5	72	Seventy-two
2-2010	IMA-331	ENVIRONMENT AND SOCIETY	5	92	Ninety-two
2-2010	IMA-342	BOLIVIAN ECOLOGICAL GEOGRAPHY AND MANAGEMENT OF AREAS	5	89	Eighty-nine
2-2010	IMA-372	ENVIRONMENTAL AUDIT	5	85	Eighty-five
2-2010	IQM-221	CHEMICAL KINETICS AND HOMOGENEOUS REACTORS DESIGN	5	77	Seventy-seven
2-2010	IQM-231	ANALYSIS AND EXPERIMENTS DESIGN	5	82	Eighty-two
2-2010	IQM-241	CHEMISTRY THERMODYNAMICS	7	60	Sixty

Page 1 of 2

Grading scale corresponds to the range from 1 to 100. The minimum passing grade is 51.

This document is ONLY GIVEN IN A ORIGINAL COPY. It will be null if it shows any CORRECTION, SHAVING AND NOTES.

Figure 3.7. Final translation of the Catolica University Transcript

TRANSLATION OF TEXTS WITH A COMPLICATED TEMPLATE'S DESIGN

Finally, there are some texts with a very complicated design, but if we develop it in a correct way, it is easy to be filled and it obviously involves a reduction in the translation process. We are going to follow the same procedures described in Figure 3.2 for terminology recollection and in Figure 3.5 for TMs designing. This is the last example:

Figure 3.8. An Identification Card of Nicaragua



1. General reading
2. Getting terminology
 - a) Specific terminology, in this case technical:

Chart 3.6. Specialized terminology of the Identification Card

consejo Supremo Electoral	Supreme Electoral Council
paso por Antemi	Through Antemi
Doy fe	I testify to this

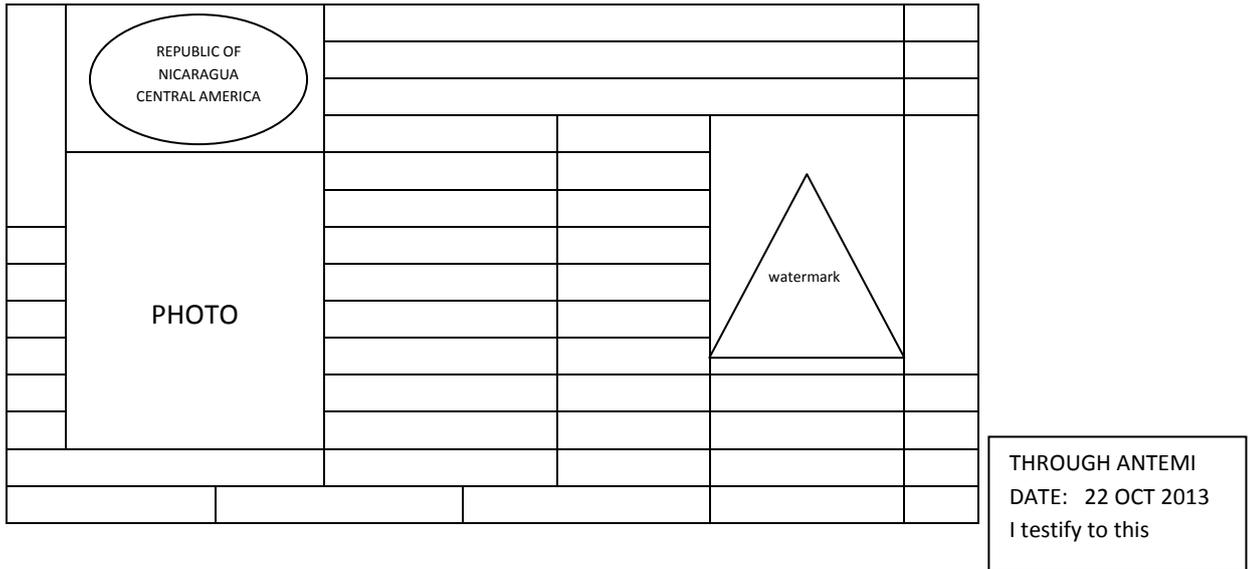
- b) Common Vocabulary:

Chart 3.7. Common terminology of the Identification Card

lugar de nacimiento	Birth Place
emisión	Issuance Date
expiración	Expiry Date

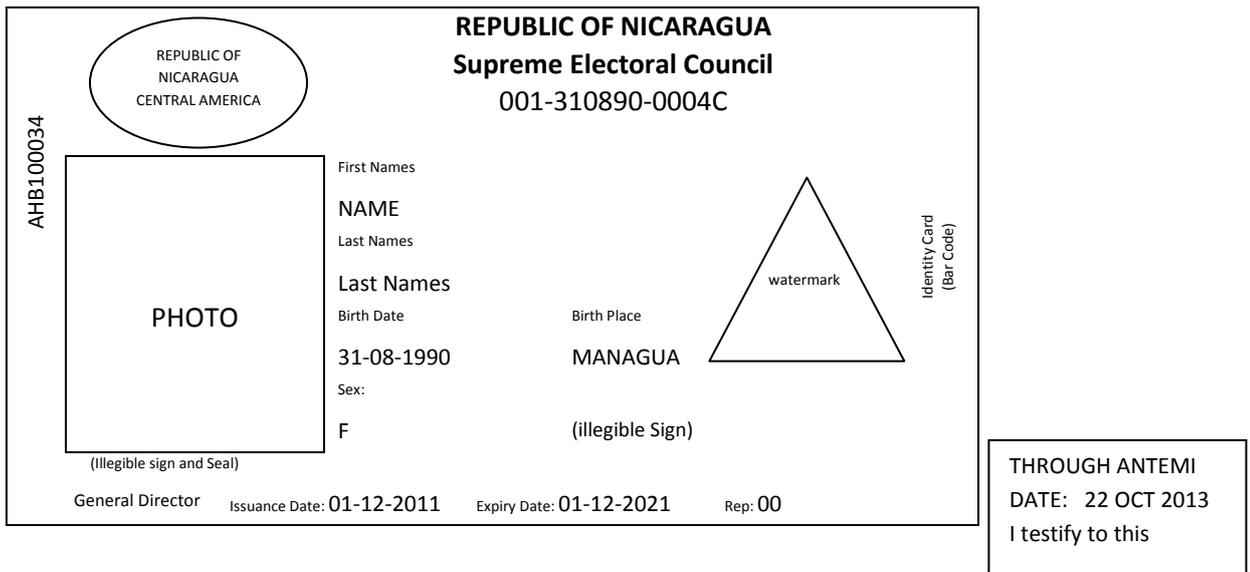
3. After finishing the selection of terminology we developed the process of charts drawing. Now it is based on a more complex system of charts but it assures the esthetic and operational quality of the translation.

Figure 3.9. TM of the Identification Card



4. And finally right after the Checking-up and having the approval of the reviser, this is the result:

Figure 3.10. Final translation of the Identification Card



3. ACHIEVEMENTS

Since the project has been implemented, we observed a big quantity of achievements, which will be grouped in two stages according to the process we have developed: the collection of terminology attached in an Excel table in order to be stored

in a data base, and the development of a TM corpus, both of them stored in the web. Both will become a useful tool for the CETI translation staff.

3.1. TERMINOLOGY COLLECTION

After we collected the terminology, as we mentioned in the previous stages of this report (e.g. Text reading, terminology collecting, terms classifying, translation locating in specialized dictionaries and translated terms approving) we took all these terms in an improvised data base (in an Excel sheet) and we classified them by language and alphabetical order. This data were shared by the two applicants during the whole supervised project period until the software was developed. Such procedure was implemented to all translations we handled during the six months. So, when a text was translated our data base grew and became richer, then, as we were translating any text, we could add the new terms or just verify if they were already included. Finally as we were translating any text using our database we could compare our progress with the other two applicants and we could notice the following aspects:

a) IMPROVEMENT IN WORKING TIME

When we obtained several approved terms (by the reviser) and stored them in the Excel table, we could have on hand some available terminology, so, we did not need to search, look for and revise again these words, that is way the translation process was reduced to almost a half compared with the work of the other two applicants who made this process again and again in each translation.

The working time of the reviser used to be long, and the revision of terms already checked came out with a waste of time. And when we stored and shared the terms, translation process time was reduced because we could work with this methodology avoiding this exhaustive repetition of pre translation procedures.

b) IMPROVEMENT IN CUSTOMER DELIVERY

A translation done in a short time versus one done by a traditional way helped positively since we notice we could finally handle with express delivery. CETI always had difficulties with this type of service which depends on customers' demands. A TM

in hand came out to be a best way to deal with and assure a satisfactory translation service.

c) IMPROVEMENT IN TRANSLATION QUALITY

For example if we have a transcript of any foreign university, it has terms which come out frequently along the whole text and resemble the ones you checked in another document from a different university. General terms then could be used in both texts maintaining reliability without the need of a non productive search for the same term.

3.2. TM DESIGN

Once we had collected a specific terminology inserted onto the Excel database, we took the next step: template and design a TM. This period indeed took a great amount of time in its procedure. The translation process without a previous TM represents a dangerous time lag in delivery services because we have to take a lot of time in order to design a new one or correct the actual TM that used to be designed as a plain letter. In fact this problem stopped accepting express translations or overdid the work of translators. These difficulties used to happen when receiving Portuguese transcripts.

The TMs used to be shared between both applicants which built a *corpus* useful to future translations. This decision improved some aspects we mention below:

a) IMPROVEMENT OF WORKING TIME

At the beginning this stage was hard to deal with, because TMs design (e.g. see figure N° 8) had to show all information or data inserted into the text. All these details shortened the process time considerably while the labour of translators tried to maintain the quality and reliably.

Once the template of the text was well done, we used to use the same TM as a core of the original work. On one hand, our TM *corpus* grew up slowly following this procedure during our period of working. We easily noticed that sharing TMs and reusing them did help the working time and allowed the acceptance of express translations successfully.

On the other hand, we noticed that the other two applicants took a long time in building TMs because they did not use template techniques and used to design them as a plain letter instead of using the Excel design. This point is shown in detail with the following example:

[Sello circular] **PONTIFICIA FACOLTÀ TEOLOGICA**
"S. BUONAVENTURA" - SERAPHICUM

03-12-12

Secretaría

Serie N° 164/12

P. 1

CERTIFICADO DE NOTAS – 1er CICLO

Estudiante: **(Name)**
 Fecha de nacimiento: 07-06-64 en Santa Cruz (Bolivia) (Nacionalidad:
 Boliviana)
 Fecha de inscripción: 21-02-90 – N° de Matr.: [Status:
 Doctorado]
 Curso SEM CRS
 NOTA

AÑO ACADÉMICO: 1989-90

TP1070 Libros Proféticos del A.T.		2
3 10,00 /10		
TP1080 Libros Sapienciales		2
2 10,00+ /10		
TP1190 Eclesiología / Misionología		2
4 9,00 /10		
TP121B Sacramentos (B) (Eucaristía, Unción de los enfermos)		2
3 10,00 /10		
TP130C Moral especial (C) (Ética social cristiana)		2
4 8,00 /10		
TP134D Historia de la Iglesia (D) (Edad contemporánea)	2	2
10,00 /10		
TP136B Derecho Canónico (B) (Función de enseñar y santificar)	2	10,00
/10		
TP141B Teol. Past. Catequética (B) (Realidad juvenil y catequesis)	2	2
10,00 /10		

AÑO ACADÉMICO: 1990-91

FP1070 Teología filosófica		1
2 9,50 /10		

ESES	EOC SOL TIERRA	CIENCIAS DE LA TIERRA	22	EC	24-May-11	PV H	WHARTONLR 0	09(3ro)*	04	2001 Estadística
									99	2001 CALIFICACIÓN TOTAL ESCALADA
									01	2003 Investigación Científica
									02	2003 Geología
									03	2003 Meteorología, oceanografía
									04	2003 Astronomía y Ciencias del espacio

Figure 3.12. Example of a Translated text using a Translation memory

In the transcript shown above we clearly observe that scores and texts are perfectly aligned without additional steps in order to jump from a cell to another, as we have to do with the Tab key. In this kind of template we do not need to use tabulations or spaces anymore. Any TM developed in this way might be used for another similar work. In that way we avoid to wasting time by modifying and readjusting texts or grades which may truly alter the configuration.

b) IMPROVEMENT IN TRANSLATION QUALITY

As shown in the first example, the Italian Transcript shape is not aligned. If the text is copied and pasted in the traditional way, we faced difficulties at the moment to elaborate a new work due to the Excel table use. On the contrary, as in the second example, the transcript, we copied and pasted the TM template and we did not need to make changes at all.

On the other hand, doing the TMs using Excel tables was easier when we wanted to copy or simulate the original configuration. So basis formats and shapes were maintained in a manner that customers acquire a high-qualifying text.

c) IMPROVEMENT OF DELIVERING EXPRESS SERVICES

Since any common text TM was not designed again, results were positive. Working time was reduced considerably, helping the improvement of express translation services according to customers' demands.

3.3. ACHIEVEMENTS IN DIFFERENT AREAS AND ASPECTS

Achievements done were not limited only in the translation project but also in the administrative and educational areas. We consider that our project and work during our working time in CETI made a positive impact because we made some activities which helped the Institution.

a) ADMINISTRATIVE ACHIEVEMENTS

a.1) NEW METHODOLOGY IN TRANSLATION SUPPORT

This system of work helped us to supervise the quantity of texts translated by each applicant. So we had the facility to distribute the works equally as well as the profits earned by each one. Those details were strictly used for administrative purposes, such as monthly reports required by Head of CETI.

Chart 3.8. Control System of translations texts

M17												
	A	B	C	D	E	F	G	H	I	J	K	L
1	DANIELA CÉSPEDES						NOELIA PRIETO					
2	FECHA	TIPO	N° BOLETA	CLIENTE	DETALLE	TOTAL	FECHA	TIPO	N° BOLETA	CLIENTE	DETALLE	TOTAL
3	28-may	TRAD	N° 96	Elias Quispe	certificado de notas	80	28-may	-	-	-	-	-
4	04-jun	TRAD	N° 97	Fanny Choque	certificado	160	04-jun	TRAD	N° 97	Fanny Choque		160
5	04-jun	TRAD-REFR	N° 98	Hédy walter rocha	3 Certif. Notas, 1 Certif. Nacimie	320	04-jun	-	-	-	-	0
6	12-jun	TRAD	N° 99	Fonnegra Aguilera Camila	certificado de notas	360	12-jun	TRAD	N° 99	Fonnegra Aguilera Camila	certificado	320
7	12-jun	TRAD	N° 100	Brenda Romero	diploma de bachiller	150	12-jun	-	-	-	-	0
8	14-jun	-	-	-	-	0	14-jun	TRAD	N° 101	señora Eileen Fitzgerald	1 título, 1 certif. nacimiento, 2 cer	560
9	17-jun	TRAD	N° 103	Novoa duran Shami	certificado de notas	120	17-jun	TRAD	N° 104	Erwin Gerardo Duran	1 título académico	150
10	18-jun	REFR	N° 106	aguiles fortes		120	18-jun	REFR	N° 105	Pablo Henrique Puro Quetehuari		160
11	19-jun	TRAD-REFR	N° 107	Aquiles fortes	certificado de notas	80	19-jun	-	-	-	-	0
12	24-jun	-	-	-	-	0	24-jun	TRAD	N° 108	Javier Zambrana	1 carta	40
13	26-jun	REFR	N° 109	Olivia Mansilla		625	26-jun	TRAD-REFR	N° 109	Olivia Mansilla		620
14												
15				TOTAL		2015				TOTAL		2010

We can observe an Excel table divided according to the relevant information to be kept.

a.2) NEW PRINTING SYSTEM

At the beginning of the project, we started to work just with a computer set up for printing. It was the only one available without connection to a work area. So each applicant had to use a USB flash drive and copy the document to print it from that computer. This procedure was neither comfortable to the applicants nor to the user of such computer. Then, one of the applicants was the affected user at that time, for this reason she proposed an idea: to set up a network to all computers used in the Center,

making them freely connected to the unique and main print. She contacted a graduate student from Engineering Systems who took responsibility of the project in order to get a certificate.

b) EDUCATIONAL ACHIEVEMENTS

As part of Mgs. Espinoza new projects, pair of workshops and an academic conference was done in order to demonstrate the knowledge developed in the translation area to students of the Linguistics and Languages Department.

On the other hand, a different work was done along with the *Gobierno Autónomo Municipal de La Paz* (GAML). This project involved the translation and subtitling of the municipal series “ZETA”.

b.1) WORKSHOPS

The workshops took place at the Grover building, in a classroom next to the Translation Center. The event had two sessions divided in four presentations; we were in charge of one of them.

The topic of our session was about subtitling videos as shown in the cover of the slides.

The contents of our workshop were:

- Types of subtitling
- Steps for subtitling
- Pre-translation
- Translation
- Post-translation

Image 3.1. Title page of slides of the translation workshop



b.2) ACADEMIC CONFERENCE

The idea of an academic conference came out from applicants and the coordinator Mgs. Rudy Espinoza. It was intended for communicating the new acquired knowledge in translation to the students as well as the experiences acquired in CETI, in terms of actual business for a translator.

The contents of the conference were:

- New paradigms of translation
- From traditional translation to a technological one
- Translation strategies and new approaches
- Traditional training and reality of work
- Lexical Creativity in translation
- Academic and Legal Translation
- Location, Internationalization and Globalization

Image 3.2. Academic conference announcement



b.3) SUBTITLING THE MUNICIPAL SERIES "ZETA"

As part of an oral agreement between the CETI and the Town Hall we began the translation and subtitling of a TV program made by GAMLP. Those episodes were focused on the education of citizens about sign traffic. This project won some prizes by several institutions including international events. The subtitling of this TV program could highly promote the national cinematography abroad. This project was subtitled from Spanish to English.

Image 3.3. Municipal Serie "ZETA"



4. EXPERIENCES

a) PROFESSIONAL EXPERIENCES

The development of our project helped us to get knowledge in the translation area taking into account the professionalism aspect.

First of all the main worthy experience refers to the work experience we got during our internship. We handled with customers demands, working-time, quality, reliability of the texts, etc., in order to achieve a proper capability in the area. The task of a professional translator involves the experience shown in the way you perform your work. A basic facet of any linguist refers to translate texts of any type. We are instructed in some subjects named Translation Techniques I and II during three semesters in our major. Even though these subjects do not involve experience in actual job, as we did in the CETI, they are very useful to our work.

Secondly we obtained great knowledge in certain areas of translation which were not taken into account before in the curriculum of Linguistics, such as the subtitling of clips, localization and internationalization, TMs and the terminology collection. All this aspects were implemented by the coordinator at that time. So, our own professional experience increased and tested during the conferences and workshops mentioned previously.

b) PERSONAL EXPERIENCES

We worked in a reliable and profitable place, as CETI, which is known for its level in educational and legal translations, that was why we have some rules to follow in

this institution in order to do a good job. The first one was the operational reception of documents. At first we had many problems in this part because we were four English applicants and that was why the correct distribution of work was in risk because some applicants worked a lot while the other ones were doing nothing, it means, it was a matter of monopolizing texts, so, we designed a control system in Excel that mentioned above, thereby we could distribute them equally. We learnt to work in groups, this way of working became efficient and pacific.

On the other hand, we developed our proactive side of our personality because we developed an autonomy sense when we faced some administrative lacks, like in the case of the printer; we solved that problem for the well-being of the institution. Another proactive step was the workshops, the academic conference and the Municipal Series “Zeta” subtitling, because we shared our new knowledge to the linguistics community.

At last, we learned to work “under pressure”. When we got some express texts we had to adapt our time in order to accomplish the job in the established time, so we had to analyze our priorities. Consequently, we can say that despite some negative aspects we acquire a large, positive and useful experience.

CHAPTER IV

RESULTS

Results shall be shown as follows:

1. RESULTS OBTAINED DURING THE APPLIED WORK

Before the introduction of results we first should systematize the steps done during the translation procedure:

1.1. TERMS

Step	Description
1	Reading of papers.
2	Search of new terms.
3	Store of terms using Excel tables.

4	Collection of specific terms.
5	Translation of terms using online dictionaries or specialized forums as mentioned previously.
6	Revision of translated terms by the reviser in charge
7	Approval of the terminology.
8	Creation of an unique corpus from both applicants
result 1	A terminological corpus ready to be used along with the main objective of this work.

Chart 4.1. Process of the collection terms

Result 1 involves the acquisition of some goals we specify below:

a. TERMINOLOGY COLLECTION TIME

Reduction of working time in collection, search and review of terminology was our main priority since we spent most part of procedural time. In terminology searching, a specialized corpus indeed shortens the time considerably. So, in order to prove this point we made a comparison between the two groups of applicants who worked in two different shifts. We constituted two groups of analysis, one who worked with TMs and terminology and one who did not. One group (Team 2) worked with the traditional translation methods while the other group (Team 1) started using the corpus we were building up. A short time later we compared the efficiency between both teams. Results showed a considerably reduction of working time in the group who used terminology corpus.

**UNIVERSIDAD MAYOR DE SAN ANDRES
CERTIFICADO DE CALIFICACIONES**

SERIE "AL"

Bs. 3.50.-

Nº 018103

22771 / 2010
Correlativo

.....
Apellido Paterno 6815848 LP **Apellido Materno** 1630561 **Nombres** CS. ECO. FINANCIERAS. ADMINISTRACION DE EMPRESAS

C. I. **Registro Univ.** **Facultad** **Carreera**

 Calificaciones obtenidas durante el período lectivo ANUAL de la gestión académica de 2010
 en conformidad al plan de estudios vigente. 1999

ASIGNATURAS		Dura- ción	CALIFICACIONES		Folio	Libro	Resultado
Sigla	Literal		Numeral	Literal			
	LABORATORIO DE INFORMATICA	Anual	*73*	SESENTA Y TRES	425	2010	APROBADO
	LABORATORIO DE INGLES	Anual	*83*	OCHENTA Y TRES	447	2010	APROBADO
	GEST. ESTRATEGICA Y TOMA DE DECIS.	Anual	*69*	SESENTA Y NUEVE	341	2010	APROBADO
	POLITICA ECONOMICA	Semestral	*62*	SESENTA Y DOS	406	2010	APROBADO
	COMPORTAMIENTO ORGANIZACIONAL	Semestral	*97*	NOVENTA Y SIETE	330	2010	APROBADO
	MERCADOTECNIA II	Anual	*53*	CINCUENTA Y CINCO	363	2010	APROBADO
	GESTION PUBLICA I	Anual	*58*	CINCUENTA Y OCHO	291	2010	APROBADO
	FINANZAS I	Anual	*58*	CINCUENTA Y OCHO	322	2010	APROBADO

.....
 Usuario: Egr. Omar I. Gósea Mamani *Se certifican 8 materias(s)
 Res. H.C.F. No. 004/2010

La Paz, 16 de DICIEMBRE de 2010

ENCARGADO DE KARDEX O SECRETARIA
 Lic. Maria del Carmen Peñaloza A.
 ENCARGADA DE KARDEX

DIRECTOR DE CARRERA O VICEDECANO
 MSc. Jorge R. Riveros Salazar
 DIRECTOR DE CARRERA

VyB: DECANO
 Lic. Sc. F. Alberto Quevedo Iriarte
 DECANO
 Fac. Ciencias Económicas y Financieras

ADVERTENCIA: Este documento queda nulo si en él se hubiesen hecho raspaduras, anotaciones o enmendaduras.
NOTA.— Escala de calificaciones hasta junio de 1972: 1 a 7 y sus valores: 1 = pésimo; 2 = malo; 3 = deficiente; 4 = regular; 5 = bueno; 6 = muy bueno; 7 = excelente
 Escala vigente de calificaciones desde julio de 1972: 1 a 100 y sus valores: 1 a 50 = reprobado; 51 a 63 = suficiente; 64 a 76 = bueno; 77 a 89 = distinguido; 90 a 100 = sobresaliente.
NOTA.— Para trámites en el exterior el certificado debe estar firmado por el Vicerrector de la UMSA.

Figure 4.1. UMSA Transcript

This is a transcript of Mayor de San Andrés University and we took it in order to analyse the time that both teams use in order to get the terminology. We took this text in order to exemplify this point, but we made this kind of analysis in many other opportunities with different documents, in order to be precise, we made this kind of analysis with this transcript, a birth certificate, a transcript of SEDUCA, an ID card, a High school Diploma and a diploma in Higher Education. For this transcript of Mayor de San Andrés University, the parameter is based on one hour of the pre-translation process, e.g. the searching of terminology; hence, these values are the time that each group use in order to search terminology:

Chart 4.2. Terminology searching parameters

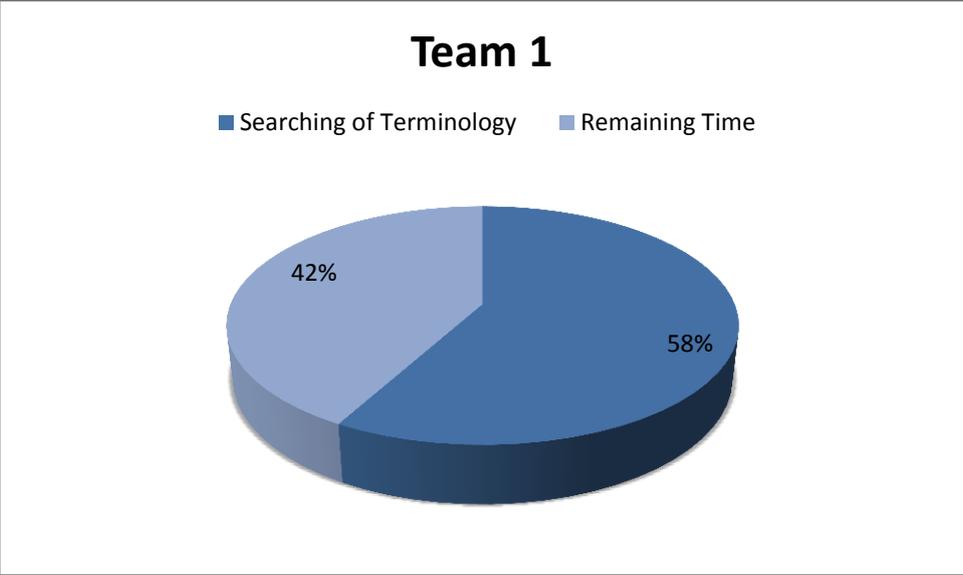
Criteria	Rate	Time Team 1	Time Team 2
Searching Terminology	1 hour = 60 minutes	35 minutes spent	48 minutes spent

Where: Team 1= We

Team 2= the other two applicants

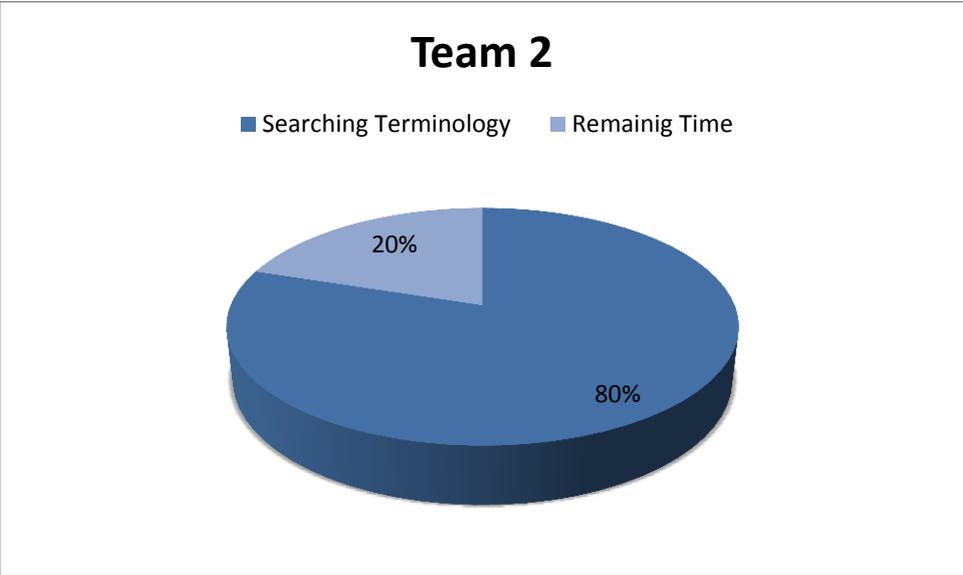
In an average of time calculus, the results displayed that Team 1 spend about 58% of the estimated time, that is 1 hour, saving almost 42% of remaining time in order to do a different task.

Figure 4.2. Percentages of time of Team 1 in searching terminology



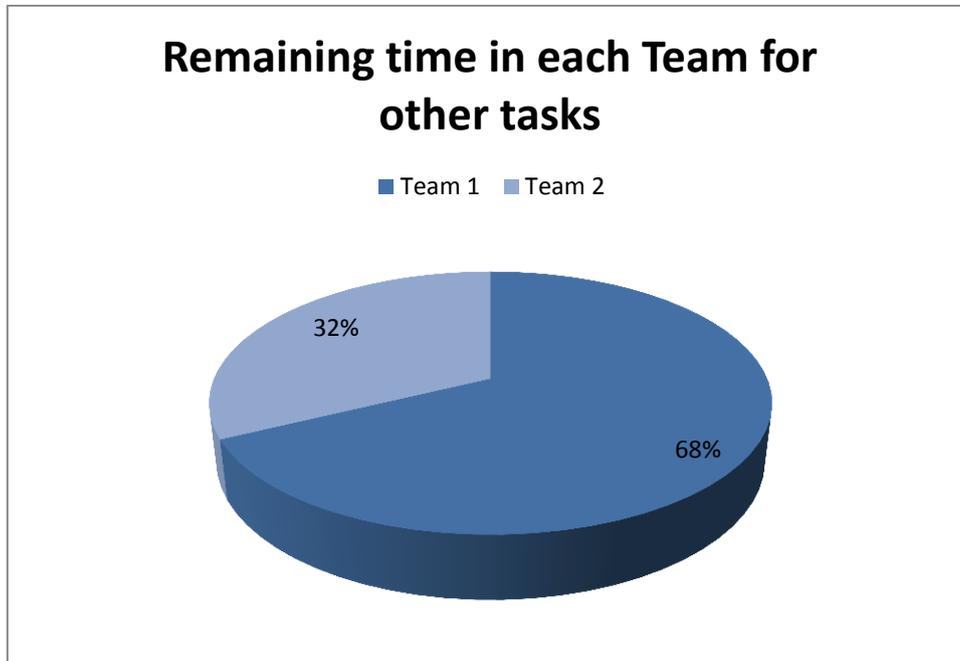
Meanwhile Team 2 spent about 80% of the time in searching terminology, with a 20% of remaining time to do the another task.

Figure 4.3. Percentages of time of Team 2 in searching terminology



We show the graphs 1 and 2 with the percentages of time spent by each team in order to get terminology, now in the next graph we are going to show the reduction of time in each team in the process searching terminology. We can say that working time was successfully shortened until around 36% of time.

Figure 4.4. Percentages of remaining time of Team 1 and 2 for other tasks



b. GETTING MATERIAL

Once we have a database with a steady growth, even though it may be just one Excel table, an extended database could be developed gradually, and with a proper supervision it could be as big as other official databases such as the UN terminological database. Likewise, as long as the use of an Excel table is present, the procedure of any translation could be done at any time or any place, being available for many programs and software such as MemoQ.

1.2. TM's DEVELOPMENT

Before showing the proper results we obtained in this section, we have to systematize the steps done as follows:

Step	Description
1	Reading of papers
2	Analysis of paper format (letter, certificate, transcripts, etc.)
3	Design of Word blank tables
4	Revision of similarities between the original and the TMs
5	Entry of translated terms
6	Revision of final draft by the reviser in charge
7	Approval of the paper
8	Creation of a unique corpus from both applicants
Result 2	A TMs corpus ready to be used along with the main objective of this work

Chart 4.3. Process of TM's development

TMs were obtained from all papers received in CETI, and now, all of them are ready to use for following translations. As the example shows above, it is a transcript of the Mayor de San Andrés University and the final draft which shows clearly the final design with Word tables. Invisible lines of the Word tables show up for the purpose and disappear once the final draft is ready to print.

(EMBOSSING SEAL)
Mayor de San
Andrés
University

MAYOR DE SAN ANDRÉS UNIVERSITY
TRANSCRIPT

SERIE ""
N°

Bs. 3.50.-

Correlative

Father's last name

Mother's last name

Names

(ID)
I.D. Card Number

(Number)
University Register

(College)
College

(Department)
Department

Grades obtained during _____ of the academic year _____, according to the current study program of 1999.

SUBJECTS		Length	GRADES		Register	Book	Result
Short code	Literal		Numeral	Literal			

User Eq:
00000000000000000000

(SEAL)
(DEPARTMENT)
DEPT. DEPT.

*Res. H.C.F. N° 004/2010

Figure 4.5. A translation memory ready to be used

Now, as we analyze the process of searching terminology, we make the same analysis in order to show the time reduction when we use a TM as a useful tool for the translation process. It is useful because we do not need to design a translation as a letter, with unnecessary tabulations and spacing, and because the TMs are available in our software, translators can use them in order to save time because it is a time consuming process. In order to make this analysis we took into account the same transcript of UMSA University for measuring time.

The parameters are: Both teams translated the same type of UMSA transcript but from different majors. The translation procedure was timed considering the searching of terminology. The translation time was estimated for about two hours.

Then:

Chart 4.4. Parameters of time consumed in translation process per team

Criteria	Rate	Team	Time Team 2
Translation process using a	2 hours = 120 minutes	Team 1	65 minutes spent (1 hour and 5

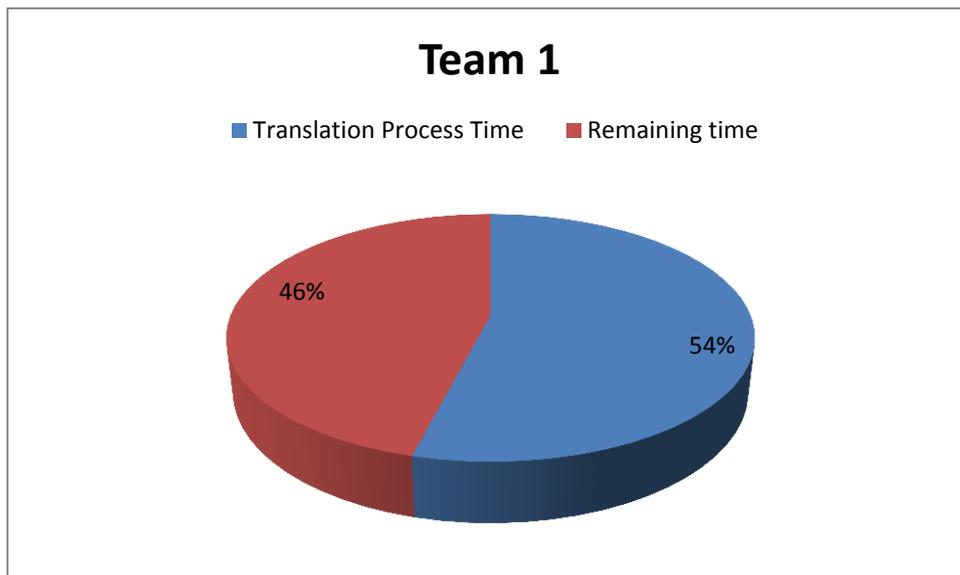
Translation memory			minutes)
Translation process without using a Translation memory	2 hours = 120 minutes	Team 2	82 minutes spent

Where: Team 1= We

Team 2= Other two applicants

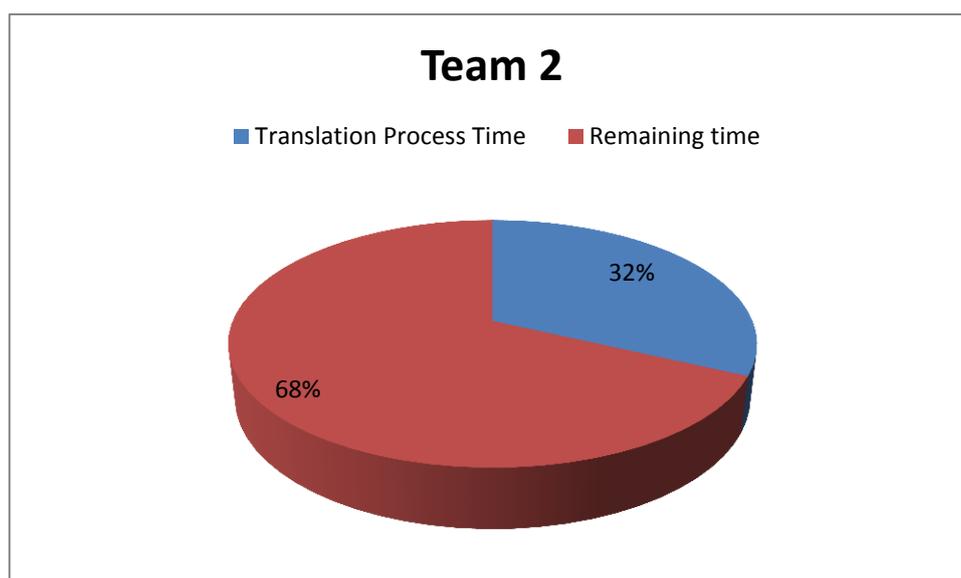
By an average, the results show Team 1 (which uses TMs) used about 54% of time saving and almost 46% of the remaining time in order to revise the translation text by the reviser in charge.

Figure 4.6. Percentages of time consumed in the translation process, team 1



Meanwhile Team 2 (which uses the traditional translation method) spent about 68% of the translation process time with a 32% of remaining time for the revisions of the paper.

Figure 4.7. Percentages of time consumed in the translation process, team 2



Clearly we can notice that it is not a big problem if client's demand is not a express translation, it means a translation in a short period of time. However, we can say that the costumers often require a quick translation that is why we need to take care of any second in this process. That is the main reason why the implementation of TMs in CETI services is very important for the present project.

2. OBTAINED RESULTS AT THE END OF THE SUPERVISED WORK

- **TERMINOLOGY**

Once the compilation of terminology was done and approved by the reviser, these terms were saved in an Excel sheet:

Chart 4.5. Compilation of terminology in an Excel sheet

ORIGEN	DESTINO	SOURCE LINK
Ministerio de Educación	Ministry of Education	http://www.education.govt.nz/ministry-c
Viceministerio de Educación Regular	Vice-Ministry of Regular Educati	http://www.proz.com/kudoz/spanish_to
Dirección Departamental	Departmental Office	https://www.treasury.gov/about/history
educación formal	formal education	http://www.infed.org/foundations/inforr
dirección distrital	district	http://www.wordreference.com/es/en/ti
turno	shift	http://www.wordreference.com/es/en/ti
calificaciones	achievement records	http://www.nzqa.govt.nz/qualifications-s
promedio de promoción	graduation average	http://gradschool.about.com/od/admissi
ciencias naturales	natural sciences	http://www.undergraduate.study.cam.ac

The image above shows briefly how we collected the terminology; first we wrote the term, then its translation and finally the link source where we can check the source of that translated word or phrase.

- **TRANSLATION MEMORIES**

We took all the TMs developed in Word tables and we classified them in folders. The classification considered language (eng-spa, spa-eng) and type of document (letters, transcripts, certificates, etc.). Then, we elicit all the fields such as names, ages, grades, etc, in order to insert the new data for a new translated document, it means, to reuse them. This is an example:



BOLIVIAN
COAT OF ARMS

LAW 070

PRICE Bs. 3.-
SERIES Nº A/2013
DDEL PZ 01

PLURINATIONAL STATE OF BOLIVIA
MINISTRY OF EDUCATION
VICE-MINISTRY OF REGULAR EDUCATION
DEPARTMENTAL OFFICE OF EDUCATION LA PAZ

FORMAL EDUCATION TRANSCRIPT

Nº

THE DEPARTMENTAL OFFICE OF EDUCATION OF LA PAZ CERTIFIES THAT:

Year: Book Nº: Page Nº:

The student: (Name) _____
 School: _____ District: _____
 Type of school: _____ Shift: _____
 Cod. RUDE _____ Cod. SIE: _____

has being promoted in the respective subjects to _____ Grade according to the evaluation system and she obtained the following:

ACHIEVEMENT RECORDS

SUBJECTS	GRADUATION AVERAGE		GRADUATION DATE	OBSERVATIONS
	NUMERAL	LITERAL		
MATHEMATICS				
LANGUAGE – LITERATURE				
PHILOSOPHY				
PSYCHOLOGY				
NATURAL SCIENCES				
PHYSICS				
CHEMISTRY				
SOCIAL STUDIES				

This system was created in order to be used by CETI translators as soon as any translation service is required. Therefore, it was expected to develop a system that can be available in the UMSA network and not just installed in certain computers or in a local network. These are the reasons:

- 1) A system installed in one computer is available just for the user. The program may not be updated for the rest of the translators because it would not be connected to a local network.
- 2) If the Operating System is infected by a virus, all the system has to be formatted because it could become corrupt or infected too. In that case computers must be formatted and the installed programs must be deleted.
- 3) If the system were installed in the local network of CETI, it could have some limitations because of the hosting machine that works as a server, e.g., just one computer contains the system, and the other computers in the network would be able to check, update, even delete terms or TMs from this system. Nonetheless, if the server machine is turned off, none of the other computers can access to the system.
- 4) Likewise point 2, if the hosting machine becomes infected, it must be formatted with the same as the installed programs. So, the system would be not available for the other computers linked to the network.

For that reason, as a part of the main objective of this project, we proposed a system hosted in the UMSA network because any damage or interruption could not interfere with the work of the official translators of CETI. This objective was satisfactorily achieved, because the program is hosted successfully in the UMSA server. So, we can its functions describe in detail.

1. Link: <http://fhcenet.umsa.bo/DICCIONARIO/>

2. Welcome interface:



Image 4.1. "CETI electronic text corpora" Main interface

As you can see the system requires the insertion of users and passwords before accessing to any of the functions. Nobody is allowed to enter the system if he or she does not have an account because CETI's information must be private and just used by its translators.

3. These are the options for the system manager, in this case the Head of CETI. He or she will be able to:

- Access to the dictionary
- Create or to delete users
- Change passwords
- Have access to the TMs



Image 4.2. Manager's Menu

In the case of users, the manager can also:

- Create new users and give them their accounts.
- Modify or delete users

Registro de Usuarios		
(*)Apellido Paterno	:	<input type="text"/>
(*)Apellido Materno	:	<input type="text"/>
(*)Nombres	:	<input type="text"/>
(*)Nombre de usuario	:	<input type="text"/>
(*)Contraseña	:	<input type="text"/>
(*)Repita la Contraseña	:	<input type="text"/>
(*)Fecha de nacimiento	:	<input type="text"/> ...
(*)Sexo	:	Femenino ▾
(*)Rol del usuario	:	Administrador ▾

Image 4.3. Users' Register

All the blank fields must be filled.

4. In the case of other regular users, it means translators, they are not able to modify, create or delete any of the users' accounts, but they can have access to the dictionary and TMs.

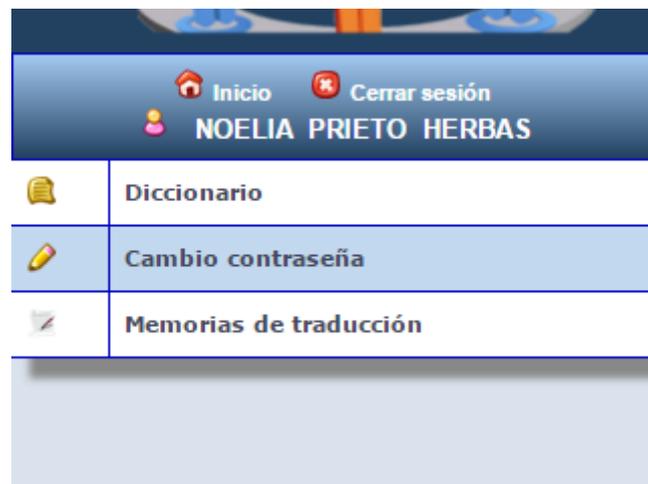


Image 4.4.Users' Menu

5. Once you click on the option "diccionario", you will find the next interface:

Palabras registradas 377				
Buscador de Palabras				
Palabra a buscar :	<input type="text"/>	<input type="button" value="Buscar Español"/>	<input type="button" value="Buscar Inglés"/>	<input type="button" value="Mostrar Todo"/>
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN

Image 4.5. Terms' searcher

Here we have the interface of searching terms. We can search the terms in English and Spanish

Buscador de Palabras				
Palabra a buscar :	<input type="text" value="faculty"/>	<input type="button" value="Buscar Español"/>	<input type="button" value="Buscar Inglés"/>	<input type="button" value="Mostrar Todo"/>
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN

Image 4.6. Way of searching terms

Here we show a term already found and its options.

Buscador de Palabras				
Palabra a buscar :	<input type="text"/>	<input type="button" value="Buscar Español"/>	<input type="button" value="Buscar Inglés"/>	<input type="button" value="Mostrar Todo"/>
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN
102	facultad de ciencias económicas y financieras	faculty of economics and financial sciences	http://www.uj.ac.za/faculties/fefs	<input type="button" value="Seleccionar"/>
232	facultad de ciencias sociales	faculty of social sciences	http://www.linguee.es/espanol-ingles/search?source=auto&query=faculty+of+social+sciences	<input type="button" value="Seleccionar"/>

Image 4.7. Found word

As we can notice, the found word has its translation as well as the link source where the info was extracted.

6. On the other hand, just the manager has the options of adding, deleting and modifying words into the database, so, if a translator has some terminology, he or she must give it to the manager in order to be checked (for reliability purposes) and added:

Registro / Modificación de palabras				
(*)Palabra Español	:	<input type="text"/>		
(*)Palabra Inglés	:	<input type="text"/>		
(*)Fuente Web	:	<input type="text"/>		
Los campos marcados con (*) deben ser llenados obligatoriamente				
<input type="button" value="Guardar"/>		<input type="button" value="Modificar"/>		<input type="button" value="Eliminar"/>

Image 4.8. Interphase for modifying words

If any elimination or modification is required, there is an optional button which says "seleccionar" in order to proceed with the user's demands:

Buscador de Palabras					
Palabra a buscar	:	<input type="text"/>	<input type="button" value="Buscar Español"/>	<input type="button" value="Buscar Inglés"/>	<input type="button" value="Mostrar Todo"/>
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN	
102	facultad de ciencias económicas y financieras	faculty of economics and finantial sciences	http://www.uj.ac.za/faculties/fefs	<input type="button" value="Seleccionar"/>	
232	facultad de ciencias sociales	faculty of social sciences	http://www.linguee.es/espanol-ingles/search?source=auto&query=faculty+of+social+sciences	<input type="button" value="Seleccionar"/>	



Image 4.9. Way of modifying words

Once the term is selected, we have the next chart, in which the modification of a word can be done:

(*)Palabra Español	:	<input type="text" value="facultad de ciencias económica"/>
(*)Palabra Inglés	:	<input type="text" value="faculty of economics and finanti"/>
(*)Fuente Web	:	<input type="text" value="http://www.uj.ac.za/faculties/fefs"/>
Los campos marcados con (*) deben ser llenados obligatoriamente		
<input type="button" value="Guardar"/>		<input type="button" value="Modificar"/>
<input type="button" value="Eliminar"/>		

Image 4.10. A Word ready to be modified

Here we can see the buttons for modifying or deleting any term if necessary.

7. In the case of TMs the interface is the next below:

Image 4.11. TM's corpus interphace

It is important to mention that TMs are stored in a private account in Dropbox server. This account and its password is available in the software as well as the link.

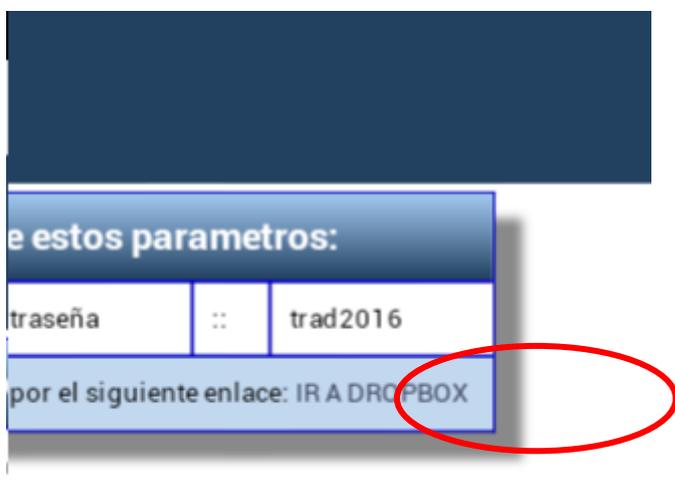


Image 4.12. Link for TM's access

Once we are in Dropbox, we have to be logged by inserting the user and password. Then, we can have access to the TMs; here we can show them properly classified in order to be used. The addition of new TMs is allowed in order to make this database bigger.

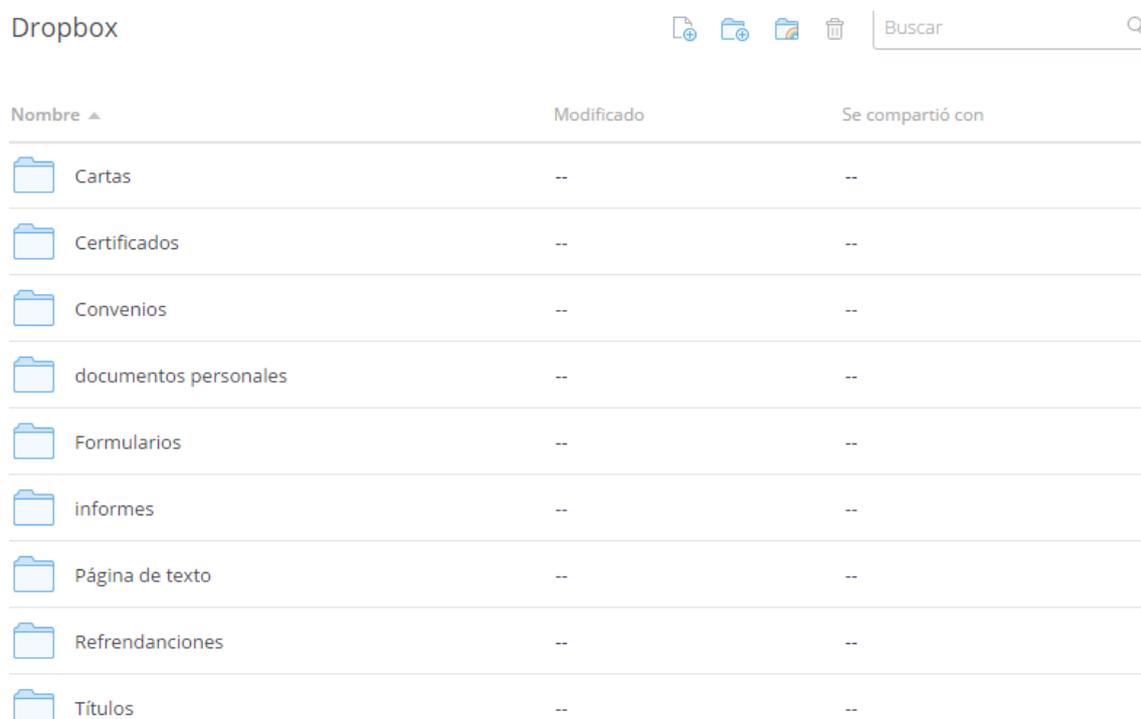


Image 4.13. TM's corpus

Finally, it is important to mention that the use of TMs as well as the systematization of terminology reduces the production time and it answers the customers' demand for faster translations. And because the TMs and the terminology is hosted in the UMSA server, it could be bigger and become a very useful tool ready to be used at any time it is required.

Now, we are going to summarize the whole work done until the conclusion of this report. In the six months we worked as translators, we used our acquired knowledge of the Linguistics and learnt a lot of new things and concepts. We worked in the pre-translation processes (e.g. identifying and searching new terminology) and when it has the approval of the reviser we inserted those approved terms into an Excel software sheet:

ORIGEN	DESTINO	SOURCE LINK
Ministerio de Educación	Ministry of Education	http://www.education.govt.nz/ministry-c
Viceministerio de Educación Regular	Vice-Ministry of Regular Educati	http://www.proz.com/kudoz/spanish_to
Dirección Departamental	Departmental Office	https://www.treasury.gov/about/history
educación formal	formal education	http://www.infed.org/foundations/inforr
dirección distrital	district	http://www.wordreference.com/es/en/t
turno	shift	http://www.wordreference.com/es/en/t
calificaciones	achievement records	http://www.nzqa.govt.nz/qualifications-s
promedio de promoción	graduation average	http://gradschool.about.com/od/admissi
ciencias naturales	natural sciences	http://www.undergraduate.study.cam.ac

Chart 4.5. Example of the terminological database

You can observe that we put the terms, their translation and their source link in which the translation was obtained. Once we had all the terms, we were ready to translated, and so, we designed the TM by using Word software charts:



MAYOR DE SAN ANDRÉS UNIVERSITY
TRANSCRIPT

Bs. 3.50.-

SERIE ""
N°

Correlative

Father's last name Mother's last name Names

(ID) (Number) (College) (Department)
I.D. Card Number University Register College Department

Grades obtained during _____ of the academic year _____, according to the current study program of 1999.

SUBJECTS		Length	GRADES		Register	Book	Result
Short code	Literal		Numeral	Literal			

User Egr

*Res. H.C.F. N° 004/2010



La Paz,

(ILLEGIBLE SIGNATURE)
REGISTER KEEPER OR SECRETARY
Lic. Magdalena Carmen Refolosa A.
REGISTER KEEPER

(ILLEGIBLE SIGNATURE)
HEAD OF THE DEPARTMENT
OR VICE-DEAN
M.Sc. Jorge R. Bustos Solórzano
HEAD OF THE DEPARTMENT

(ILLEGIBLE SIGNATURE)
DEAN
Lic. Dr. Alberto Quiroga Urrutia
DEAN
College of Economic and Financial Sciences
UMSA

WARNING: This document will get nullified if there are modifications or notes on it.

NOTE.-Grading until June 1972; on 1 to 7 and their weights: 1 - dreadful; 2 - bad; 3 - deficient; 4 - regular; 5 - good; 6 - very good; 7 - excellent.

Grading from July 1972; on 1 to 100 and their weights: 1 to 50 - failed; 51 to 63 - sufficient; 64 to 76 - good; 77 to 89 - with distinction;

90 a 100 - outstanding

NOTE.-This document must be signed by the vice-chancellor of UMSA for foreign paperwork.

Figure 4.9. Example of a Translation Memory

After the collection of terminology and the collection of TMs in a corpus we gave this data to the computing engineer who developed the technological part and create the software, consequently this is the final product or result:



Image 4.14. Interface of “Diccionario Bilingue”

Since the implementation of this software, CETI has a technological tool according to the new age. In the period of our activities in CETI, we could verify that the use of TMs as well as standardized terminology entailed the use of less time in order to translate. You can see it in the above results.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

1. CONCLUSIONS

In conclusion we have a good time during our period in CETI, without mentioning the large quantity of knowledge we acquired. And the main proof is the change that the development and implementation of our software has produced in the area of translation in this institution.

First, the proposal offered the development and implementation of a software which can functions as a desktop database with all the terms gathered as well as a corpus of the TMs of the whole legal translated texts during 6 months of the supervised work period. Then, the proposal answered the principal need: CETI did not have a data base, or at least an official corpus of TMs and terminology commonly used in the translation of legal and academic texts. This software responds perfectly to this problem.

Talking about changes, since the system was uploaded to the UMSA's server, and it was introduced to the team of translation of CETI, it has become a useful tool and it is able to grow from here on. Since the implementation of this software, terminology can be standardized because all CETI's translators can join their terms as well as sharing them in order to produce standardized, accurate and reliable translated texts. In addition, since TMs are also stored and available to be used, the format of texts is standardized and makes the work of a translator easier because the time of the translation process and the layout decrease to almost a half, which is the reason why the translations that CETI offers will be accurate, reliable and opportune.

On the other hand, we can conclude that our experience in the institution was the best because our knowledge increased by facing a real life work, as well as our performance in the area of translation, one of the most important areas of the linguistics department, thus, we added to our knowledge other specialties of translation such as subtitling, location of web pages, memories of translation, etc. We did not even have an outline of this kind of things in our stage of education at the university. We learned vital things for our professional practice, things like teamwork, administration of a real center of translation, as well as a job under different categories of translation. In that way, we also had the opportunity of sharing our new knowledge in some workshops which taught us the administrative procedure to develop this kind of events. The acquired experience and the impact of the implementation of our proposal in CETI were largely positive. Now we can report that the objectives have been achieved as well as we had reached a new professional stage. Our specific objectives say: "To show the common problems in the standard translation design of TM at CETI.", we exhibit just one transcript in chapter III (in "achievements" section) in chart 3.8., in order to exemplify the vast quantity of this kind of texts that were designed like letters and as a consequence they lost their configuration of a transcript or any kind of legal document, at the time of printing or reusing them. In the next objective: "To draw word charts as basis for developing TMs in WORD processor software in order to create a corpus from the TMs of legal and academic texts." We developed a lot of TMs as the figure 4.9 exemplifies, and then we stored them in our system. In the objective: "To build a corpus of all terminology and acronyms used in the supervised work in EXCEL software taking into account the most essential technical words obtained in recognized virtual dictionaries.", we achieve successfully this objective as you can see in chapter IV in graph N°() for the terminology. In our objective: "To storage the TMs and the collected terminology in a database as a part of the electronic corpora" we achieved this objective with the help of the computing engineer, and immediately after this step, our objective: "To upload this software in the server of UMSA" was started in order to host and make it useful for our purposes. However, in the case of this objective: "To implement the electronic corpora into CETI in order to assess it." It is in progress yet, because the software is in a period of proof until the conclusion of this report, and the final specific objective: "To adjust some possible errors in the software." is not achieved yet because it could be applied after the examination and approval of the examiner jury. Finally, as you can see in the whole chapter IV, we achieve our main or general objective: "To develop an electronic

text corpora of the Translation Memories (TM) and the recollected terminology in the process of translating legal and academic texts from English into Spanish and vice versa, in order to be used at CETI for future translations and make them more reliable.”

In terms of the system, we also presented it and taught the head of CETI in its form of using. After he did all the high-quality proofs in the software, we obtained his approval as well as a certification that proves that our project is applicable and useful for the institution. Finally, once the dictionary was uploaded on UMSA server, we wrote a letter to the authority of Faculty of Humanities and Educational Sciences in order to inform her that this system is ready to be used and make notice the person who is in charge of the information technology in the faculty that the system needs to have some backups regularly.

2. RECOMMENDATIONS

It is important to establish some considerations:

1) Although the present work is oriented the development of a terminological corpus as well as a database of the TMs, it includes all the terms used in transcripts, certified of completion, etc, e.g. academic terminology of legal texts, but it does not include the terminology found in every text translated during our work period, texts such as letters, general texts, among others. We made the same process for the TMs, they are only of the academic and legal texts in Spanish, English and Portuguese, and they do not include the TMs of other ones such as Russian and Japanese texts that were also part of our responsibility.

2) The proposal established the development of this software. The other things that we developed during the six months of our applied work were merely occasional and are not part of this software, things like the subtitling work, the workshops, etc.

3) After the implementation and assessment of this software, it is totally able to be modified and expanded according to the necessities of translators or the staff who work at CETI. It is important to explain that just a qualified person is able to make such modifications or amplifications, because it was coded with version 8 of JAVA programming, and HTML, JSP and CSS languages in order to create the interfaces. In

addition, it was used PostgreSQL as the tool for developing the database and the AJAYU source code library for accessing it, and finally the SPRING source code was used in order to implement the Vista controller. For that reason, the person who want to adjust or extend this software must be a qualified computing engineer with high level of programming in that languages, as well as a high knowledge of the requirements of this kind of systems located in a server. As we said, this software could be extended or modified in the sense of making it very useful for the institution, it could be added some functions such as another database with the terminology of other languages, pronunciation of the words, copy, cut, and paste functions, etc., for this purpose the TECHNICAL HANDBOOK of this system is displayed in the section of annexes.

4) Finally it is recommended that this software will be often used in order to make it grow, for that purpose it is suggested that the whole staff of CETI should be acquainted about this system and its form of use.

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ANNEXES

ANNEX 1

Terminological Database

Terminos inglés- español		
Termino	traducción	fuentes
county	condado	http://www.wordreference.com/es/translation.as
county clerk	secretario del condado	http://www.wordreference.com/es/translation.as
subscribed before me	suscrito ante mí	http://www.proz.com/kudoz/english_to_spanish/
Secretary of State	Secretario de Estado	http://www.proz.com/kudoz/english_to_spanish/
keeper of records	archivador	http://www.wordreference.com/es/translation.as
the duly appointed, sworn and qualified	registrador debidamente nombrado, juramentado	http://www.proz.com/kudoz/english_to_spanish/
duly appointed	debidamente autorizado	http://mymemory.translated.net/s.php?q=
facsimile signatures	firmas en facsímil(e)	http://www.proz.com/kudoz/english_to_spanish/
herein	aquí dentro	http://www.wordreference.com/es/translation.as
In witness whereof	En testimonio de lo cual	http://forum.wordreference.com/showthread.ph
I have hereunto set my hand and aff	aquí asiento mi firma y sello oficial	http://forum.wordreference.com/showthread.ph
Director of Student Services	Director de Servicios Estudiantiles	http://www.proz.com/kudoz/english_to_spanish/
Major	especialización	http://www.proz.com/kudoz/english_to_spanish/
Core	principal	http://www.linguee.es/ingles-espanol/traduccior
house	facultad	http://www.wordreference.com/es/translation.as
survey issues	temas de estudio	http://mymemory.translated.net/s.php?q=survey
Students union	sindicato de estudiantes	http://www.linguee.es/espanol-ingles/search?so
Topical	de actualidad	http://www.wordreference.com/es/translation.as
Lectures	conferencias	http://www.wordreference.com/es/translation.as
Faculty	profesorado	http://www.proz.com/kudoz/english_to_spanish/
Grade Point Average	Promedio	http://mymemory.translated.net/s.php?q=Grade+
Fee	tarifa	http://www.wordreference.com/es/translation.as
Budget	presupuesto	http://www.wordreference.com/es/translation.as
medical	examen médico	http://www.wordreference.com/es/translation.as
optometrist	optometrista	http://diccionario.reverso.net/ingles-espanol/opt
Immunization	Vacunación	http://www.proz.com/kudoz/english_to_spanish/
Exempt	Inmune	http://www.thefreedictionary.com/immune
Tdy	Acronimo de Tardy: retrasos	http://www.proz.com/kudoz/english_to_spanish/
MTD	Acronimo de (Month to date): Mes a la fecha	http://www.proz.com/kudoz/english_to_swe
POS	Acronimo de (Partial Order Schedule): Posterg	https://www.allacronyms.com/POS/Partial_Order
YTD	Acronimo de (Year to date): Año a la fecha	http://www.proz.com/kudoz/english_to_swedish
Tardy-Unexcused	Retrasos injustificados	http://www.linguee.es/espanol-ingles/search?so
Field Trip	Excursiones	http://www.linguee.es/espanol-ingles/search?so
Serv	Servicio	http://www.acronymfinder.com/SERV.html
Schl	Acronimo de (School): Colegio	http://www.abbreviations.com/SCHL
Lock	Clave	http://www.linguee.es/espanol-ingles/search?so
SEM	Semestre	http://www.bu.edu/academics/bulletin/abbrevia
Homeroom	aula	http://www.wordreference.com/es/translation.as
Counselor	asesor	http://www.linguee.es/espanol-ingles/search?so
Using Word analysis strategies	Estrategias y análisis de fónica	
Life systems	Ecosistemas	http://www.proz.com/kudoz/english_to_spanish/
Tier	etapa	http://www.linguee.es/espanol-ingles/search?so
Composite	redacción	
transcript	Record académico	http://www.proz.com/kudoz/english_to_spanish/
enrolled	inscritos/matriculados	http://www.wordreference.com/es/translation.as
junior high school	escuela secundaria	http://www.proz.com/kudoz/english_to_spanish/
certificate of completion	Certificado de Asistencia	proz
Decree on degrees	Dictamen de grados	http://www.linguee.es/espanol-ingles/search?so
minor	subespecialización	http://www.proz.com/kudoz/english_to_spanish/
Child welfare	bienestar del menor	http://www.proz.com/kudoz/english_to_spanish/
Language Revisión	Corrección lingüística	http://www.linguee.es/espanol-ingles?query=lan

non-residents for tuition purposes	no residente del estado para las tarifas de mat	http://www.linguee.es/espanol-ingles?query=res
LA	Language Arts	http://www.acronymfinder.com/Organizations/LA
ENG HON	Inglés (Nivel Avanzado)	http://www.proz.com/kudoz/english_to_spanish/
FUND ERTH/ SP SCI	Ciencias Fundamentales de la Tierra y el Espac	http://www.proz.com/kudoz/english_to_spanish/
recordkeeping	mantenimiento de registros	http://www.linguee.es/espanol-ingles?query=rec
workforce development	desarrollo de la fuerza laboral	linguee
regardless of	a pesar de	http://www.wordreference.com/es/translation.as
in good standing etc	Cumpliendo con todos los requisitos	http://www.proz.com/kudoz/english_to_spanish/
should be allowed entitled to	a quien se debe permitir / otorgar el derecho	proz
in witness whereof	en fe de lo cual	proz
agreeableness	complacencia	linguee
responsiveness	capacidad de respuesta	linguee
Termino	Español	fuelle
total credits aprobados	total credits earned	http://www.proz.com/kudoz/spanish_to_english/
chancellor	rector	http://www.merriam-webster.com/dictionary/ch http://forum.wordreference.com/showthread.ph http://www.wordreference.com/es/translation.as
dean	decano	http://www.proz.com/?sp=gloss/term&id=131672
first class honours	sobresaliente	http://www.proz.com/kudoz/english_to_spanish/
full-time student	estudiante regular	http://www.proz.com/?sp=gloss/term&id=427616
office of the registrar	oficina de la secretaría	http://www.proz.com/?sp=gloss/term&id=251718
patristics	patristica o patrología	http://www.linguee.es/espanol-ingles/search?source=auto&query=patristics
second class honours	notable	http://www.proz.com/kudoz/english_to_spanish/
theology of laity musicianship	teología del laicado destreza musical	http://www.linguee.es/espanol-ingles/search?so http://www.proz.com/kudoz/english_to_spanish/
superintendent registrar's district	distrital del jefe del registro civil	http://www.proz.com/kudoz/english_to_spanish/
technical representative	representante técnico	http://www.proz.com/?sp=gloss/term&id=1995673
assistant authentication officer	funcionario adjunto de legalización	http://www.proz.com/kudoz/english_to_spanish/
county	condado	http://www.wordreference.com/es/translation.as
hereunto	adjunto	http://www.proz.com/?sp=gloss/term&id=498325
in testimony whereof	en testimonio de lo cual	http://www.proz.com/kudoz/english_to_spanish/
to all whom these presents shall co	a todos los que la presente vieren y entender	http://www.proz.com/kudoz/english_to_spanish/
amount due	monto adeudado	http://www.proz.com/kudoz/english_to_spanish/
amount paid	monto cancelado	http://www.proz.com/kudoz/english_to_spanish/
AP Advanced placement	cursos de nivel avanzado	http://www.proz.com/kudoz/english_to_spanish/
athletic director	jefe de deportes	http://www.linguee.es/espanol-ingles/search?qu
beg guitar	clase básica de guitarra	http://www.proz.com/?sp=gloss/term&id=111158
commonwealth scholar	estudiante del Commonwealth	http://www.proz.com/kudoz/english_to_spanish/
counselor	asesor	http://www.proz.com/?sp=gloss/term&id=145831
driver education	educación vial	http://www.proz.com/kudoz/english_to_spanish/
during current school year	durante el periodo lectivo escolar	http://www.proz.com/kudoz/english_to_spanish/
earned credit	crédito esperado	http://www.proz.com/kudoz/english_to_spanish/
earth science	ciencias de la tierra	http://www.proz.com/kudoz/english_to_spanish/
grading scale	escala de calificaciones	http://www.proz.com/kudoz/english_to_spanish/
guidance	orientación	http://www.proz.com/?sp=gloss/term&id=555900
H honors	con honores	http://www.proz.com/kudoz/english_to_spanish/
health & pe	educación física y salud	http://www.thefreedictionary.com/Physical+Educ
immunization record	registro de vacunación	http://www.proz.com/kudoz/spanish_to_english/
incomplete	abandonó	

industry certification credential	certificado de empleo en industria	http://www.proz.com/kudoz/english_to_spanish/
letter grade	calificación final	http://www.proz.com/kudoz/english_to_spanish/
main office	oficina del director	http://www.linguee.es/espanol-ingles/search?so
not graded	sin nota	http://www.linguee.es/espanol-ingles/search?so
not passed	reprobó	http://forum.wordreference.com/threads/studen
official transcript	certificado oficial	http://www.proz.com/kudoz/english_to_spanish/
P.E. Department	Área de educación física	http://www.thefreedictionary.com/Physical+Educ
passed	aprobó	http://www.wordreference.com/es/translation.as
record	registro	http://www.wordreference.com/es/translation.as
school designee	encargado del colegio	http://www.proz.com/?sp=gloss/term&id=101179
school staff member	docente; miembro del plantel docente	http://www.proz.com/kudoz/english_to_spanish/
Star Base	Base <i>Star</i>	
state operated facility	colegio hospitalario	http://www.proz.com/kudoz/english_to_spanish/
student withdrawal	retiro de estudiante	http://www.linguee.es/espanol-ingles/search?so
transfer grades	traspaso de notas	http://www.linguee.es/espanol-ingles/search?so
transcript of grades	certificado de notas	http://www.proz.com/kudoz/english_to_spanish/
transfer form	formulario de transferencia	http://www.proz.com/?sp=gloss/term&id=770166
TRT	Profesor sustituto	http://www.acronymfinder.com/TRT.html
verified credit	crédito completado	http://www.linguee.es/espanol-ingles/search?so
verified credit by substitution	crédito obtenido por sustitución	http://www.linguee.es/espanol-ingles/search?so
withdrawal grades	notas de ausencia	https://answers.yahoo.com/question/index?qid=:
world his/geo	geografía e historia mundial	http://www.linguee.es/espanol-ingles/search?so
Allergy	Alergias	http://www.wordreference.com/es/translation.as
Beeper	Localizador	http://www.wordreference.com/es/translation.as
citizenship	ciudadanía	http://www.wordreference.com/es/translation.as
Cluster	Grupo	http://www.wordreference.com/es/translation.as
Desc.	Descripción	http://www.acronymfinder.com/DESC.html
ELL	Estudiante de Lengua Inglesa	http://www.acronymfinder.com/ELL.html
home language	lengua de hogar	http://www.proz.com/kudoz/english_to_spanish/
Homeroom	Aula	http://forum.wordreference.com/threads/homero
Prev School	Colegio Anterior	http://www.linguee.es/espanol-ingles/search?so
primary language	lengua madre	http://www.proz.com/kudoz/english_to_spanish/
Special Ed	Educación especial	http://www.proz.com/kudoz/english_to_spanish/
Star Student	<i>Star Student</i>	http://www.msme.com/star-student-teacher-act
chief, notary and authentication sec	jefe de la sección notarial y autenticación	http://www.proz.com/kudoz/english_to_spanish/
in witness whereof	en testimonio de lo cual	http://www.proz.com/kudoz/english_to_spanish/
Records Mgmt Supervisor	Supervisor de Gestión de Registros	http://www.proz.com/kudoz/english_to_spanish/
road	carretera	http://www.wordreference.com/es/translation.as
to whom it may concern	a quien corresponda	http://www.proz.com/kudoz/english_to_spanish/
bachelor of social sciences	licenciatura en ciencias sociales	http://www.linguee.es/espanol-ingles/search?so
basic and intermediate studies	estudios fundamentales e intermedios	http://www.linguee.es/espanol-ingles/search?so
Chief of Academic Affairs	Jefe de Asuntos Académicos	http://www.linguee.es/espanol-ingles/search?so
dean	decano	http://www.wordreference.com/es/translation.as
excellent	excelente	http://www.wordreference.com/es/translation.as
faculty of social sciences	facultad de ciencias sociales	http://www.linguee.es/espanol-ingles/search?so
forgoing certificate	certificado anterior	
main subject	especialidad	http://www.proz.com/?sp=gloss/term&id=509833
minor subjects	subespecialidades	http://www.linguee.es/espanol-ingles/search?so
oral skills	destrezas en la expresión oral	http://www.linguee.es/espanol-ingles/search?so
passable; adequate	suficiente	http://www.wordreference.com/es/translation.as
reading comprehension	lectura comprensiva	http://www.wordreference.com/es/translation.as
satisfactory	satisfactorio	http://www.wordreference.com/es/translation.as
very good	muy bueno	http://www.wordreference.com/es/translation.as
workload required	carga horaria requerida	http://www.linguee.es/espanol-ingles/search?so

access requirement	requisito para ingreso	http://www.linguee.es/espanol-ingles/search?so
amendments	enmiendas	http://www.proz.com/?sp=gloss/term&id=154417
approbatur	Aprobado	http://es.wikipedia.org/wiki/Locuciones_latinasht
Council of Europe	Consejo de Europa	http://www.linguee.es/espanol-ingles/search?so
cum laude approbatur	Aprobación con Honores	http://es.wikipedia.org/wiki/Locuciones_latinasht
enclosed attachment	texto adjunto	http://www.linguee.es/espanol-ingles/search?so
entrance examination or admission	examen de ingreso o admisión	http://www.linguee.es/espanol-ingles/search?so
Eurepan Commission	Comisión Europea	http://www.linguee.es/espanol-ingles/search?so
eximia cum laude approbatur	aprobación con los Mayores Honores	http://es.wikipedia.org/wiki/Locuciones_latinasht
family name	apellido(s)	http://www.wordreference.com/es/translation.as
Finnish Higher Education Evaluation	Consejo de Evaluación de Educación Superior F	http://www.linguee.es/espanol-ingles/search?so
full-time study	estudio de tiempo completo	http://www.linguee.es/espanol-ingles/search?so
given name	nombre(s)	http://www.wordreference.com/es/translation.as
grading scheme	esquema de calificaciones	http://www.linguee.es/espanol-ingles/search?so
information source	fuerite de información	http://www.proz.com/?sp=gloss/term&id=395321
laudatur	laureado	http://es.wikipedia.org/wiki/Locuciones_latinasht
lubenter approbatur	Aprobación Satisfactoria	http://es.wikipedia.org/wiki/Locuciones_latinasht
magna cum laude approbatur	aprobación con los Grandes Honores	http://es.wikipedia.org/wiki/Locuciones_latinasht
mode of study	modalidad de estudio	http://www.linguee.es/espanol-ingles/search?so
national higher education system	sistema de educación superior nacional	http://www.linguee.es/espanol-ingles/search?so
non sine laude approbatur	Aprobación con Distinción	http://es.wikipedia.org/wiki/Locuciones_latinasht
official seal	sello oficial	http://www.proz.com/kudoz/english_to_spanish/
official stamp	estampa oficial	http://www.linguee.es/espanol-ingles/search?so
P.O. Box	apartado postal	http://www.wordreference.com/es/translation.as
quality assurance system	sistema de garantía de calidad	http://www.proz.com/kudoz/english_to_spanish/
compulsory education	educación obligatoria	http://www.proz.com/?sp=gloss/term&id=234659
post-compulsory education	educación post-obligatoria	http://www.linguee.es/espanol-ingles/search?so
vocational institutions	instituciones de formación profesional	http://www.linguee.es/espanol-ingles/search?so
polytechnics	institutos tecnológicos	http://www.linguee.es/espanol-ingles/search?so
European Credit Tranfer and Accum	Sistema Europeo de Tranferencia y Acumulación	http://www.linguee.es/espanol-ingles/search?so
University Degrees	Titulaciones Universitarias	http://www.proz.com/kudoz/english_to_spanish/
curricula	planes de estudio	http://www.proz.com/kudoz/english_to_spanish/
First-cycle university degree	Titulación universitaria del primer ciclo	http://www.linguee.es/espanol-ingles/search?so
Second-cycle university degree	Titulación universitaria del segundo ciclo	http://www.linguee.es/espanol-ingles/search?so
Master of Arts	Maestría en Humanidades	http://www.linguee.es/espanol-ingles/search?so
Master in Science	Maestría en Ciencias	http://www.linguee.es/espanol-ingles/search?so
Licenciate	Licenciado	http://www.proz.com/?sp=gloss/term&id=246254
internship	pasantía	http://www.wordreference.com/es/translation.as
expertise	experiencia	http://www.wordreference.com/es/translation.as
doctoral degree	Doctorado	http://www.proz.com/kudoz/english_to_spanish/
in-deph knowledge	conocimiento profundo	http://www.linguee.es/espanol-ingles/search?so
annual curricula	programas anuales	http://www.linguee.es/espanol-ingles/search?so
first-cycle polytechnic degrees	titulaciones politécnicas del primer ciclo	http://www.linguee.es/espanol-ingles/search?so
second-cycle polytechnic degrees	titulaciones politécnicas del segundo ciclo	http://www.linguee.es/espanol-ingles/search?so
Master of Culture and Art	Maestría en Humanidades y Cultura	http://www.linguee.es/espanol-ingles/search?so
Master of Business Admnistration	Maestría en Administración y Dirección de Em	http://www.linguee.es/espanol-ingles/search?so
affidavit	declaración jurada	http://www.proz.com/kudoz/english_to_spanish/
alteration	alteración	http://www.wordreference.com/es/translation.as
birth name	apellido de soltera	http://www.wordreference.com/es/translation.as
birthplace	lugar de nacimiento	http://www.wordreference.com/es/translation.as
certificate of confidential marriage	certificado de matrimonio confidencial	http://www.proz.com/?sp=gloss/term&id=100564

certification of vital record	certificación del registro civil	http://www.proz.com/kudoz/english_to_spanish/
Civil Code	Código Civil	http://www.proz.com/?sp=gloss/term&id=267914
COMM.	comisión	http://www.acronymfinder.com/COMM.html
county clerk	secretario(a) del condado	http://www.proz.com/kudoz/english_to_spanish/
County of issue	condado donde se hizo la emisión	http://www.linguee.es/espanol-ingles/search?so
engraved border	borde grabado	http://forum.wordreference.com/threads/engrav
erasure	enmienda	http://www.wordreference.com/es/translation.as
expiration date	fecha de expiración	http://www.proz.com/kudoz/english_to_spanish/
issue date	fecha de emisión	http://www.proz.com/?sp=gloss/term&id=769808
license	licencia	http://www.wordreference.com/es/translation.as
middle name	segundo nombre	http://www.proz.com/kudoz/english_to_spanish/
Official Title	Cargo Oficial	http://www.proz.com/kudoz/english_to_spanish/
party	parte	http://www.wordreference.com/es/translation.as
registrar-recorder	oficial de registro	http://www.proz.com/kudoz/english_to_spanish/
seal	sello	http://www.wordreference.com/es/translation.as
the great seal	el gran sello	http://www.proz.com/kudoz/english_to_spanish/
Title	Cargo	http://www.wordreference.com/es/translation.as
academic scholar-elective	asignatura electiva	http://www.proz.com/kudoz/english_to_spanish/
academic scholar-requirement	asignatura obligatoria	http://www.proz.com/kudoz/english_to_spanish/
advanced placement courses	cursos avanzados	http://www.proz.com/kudoz/english_to_spanish/
ANAT PHYSIO	anatomía y fisiología	http://www.acronymfinder.com/ANAT.html
aural/oral	auditivo/oral	http://www.wordreference.com/es/translation.as
Carnegie unit	unidad Carnegie	http://www.proz.com/kudoz/english_to_spanish/
COMP ED	educación compensatoria	https://en.wikipedia.org/wiki/Compensatory_edu
COMPUTER LIT	conocimientos y destrezas en computación	http://www.proz.com/?sp=gloss/term&id=220587
current district	distrito actual	http://www.linguee.es/espanol-ingles/search?so
current school	colegio actual	http://www.linguee.es/espanol-ingles/search?so
District	Distrito	http://www.wordreference.com/es/translation.as
elementary self-contained	contenidos básicos y propios	http://www.ascd.org/ASCD/pdf/journals/ed_lead
ELL	estudiantes de inglés	http://www.acronymfinder.com/ELL.html
ESE services	servicios de ESE	http://www.acronymfinder.com/ESE.html
ESOL	Inglés para hablantes de otras lenguas	http://www.acronymfinder.com/ESOL.html
exclude from state GPA	omitido del GPA	http://www.linguee.es/espanol-ingles/search?so
FEFP program	PFEF	http://www.acronymfinder.com/FEFP.html
file	archivo	http://www.wordreference.com/es/translation.as
GEN SCI	ciencias genéticas	http://www.acronymfinder.com/SCI.html
gifted	otorgado	http://www.proz.com/kudoz/english_to_spanish/
GPA	Promedio de Notas	http://www.proz.com/kudoz/english_to_spanish/
Grade level	Grado N°	http://www.proz.com/?sp=gloss/term&id=145842
health examination	examen médico	http://www.proz.com/kudoz/english_to_spanish/
home language instruction	instrucción en primera lengua	http://www.linguee.es/espanol-ingles/search?so
honors	distinciones	http://www.proz.com/kudoz/english_to_spanish/
honors courses	cursos distinguidos	http://www.proz.com/kudoz/english_to_spanish/
international baccalaureate course	curso de estudio universitario internacional	http://www.linguee.es/espanol-ingles/search?so
JROTC AIR	formación militar aérea	http://www.proz.com/kudoz/english_to_spanish/
JROTC ARMY	formación militar	http://www.proz.com/kudoz/english_to_spanish/
JROTC CST GB SUB	formación militar de entrenamiento de habilidad	http://www.proz.com/kudoz/english_to_spanish/
JROTC NAVY SUB FOR SCIENCE	Reemplazo de formación militar naval por ciencias	http://www.proz.com/kudoz/english_to_spanish/
JROTC SUB FOR PRACTICAL ARTS	Formación militar por artes y oficios	http://www.linguee.es/espanol-ingles/search?so
legal name	nombre completo	http://www.proz.com/kudoz/english_to_spanish/
LIFE MGMT	formación integral	http://www.proz.com/kudoz/english_to_spanish/
native language	lengua materna	http://www.linguee.es/espanol-ingles/search?so
ninth grader	grado noveno mayor	http://www.linguee.es/espanol-ingles/search?so

no credit	no hay créditos	http://www.proz.com/kudoz/english_to_spanish/
PHY SCI	ciencias de la física	http://www.proz.com/kudoz/english_to_spanish/
plan date	plan de estudios	http://www.proz.com/kudoz/english_to_spanish/
PRAC ARTS	artes y oficios	http://www.linguee.es/espanol-ingles/search?so
pre algebra	álgebra inicial	http://www.linguee.es/espanol-ingles/search?so
pre-international baccalaureate course	curso de estudio preuniversitario internacional	http://www.linguee.es/espanol-ingles/search?so
prepared date	fecha de emisión	http://www.linguee.es/espanol-ingles/search?so
report card	boleta de calificaciones	http://www.proz.com/kudoz/english_to_spanish/
school entry	ingreso escolar	http://www.linguee.es/espanol-ingles/search?so
semiannual review	revisión semestral	http://www.linguee.es/espanol-ingles/search?so
senior school	secundaria	http://www.proz.com/kudoz/english_to_spanish/
slep exam	examen SLEP	http://www.proz.com/kudoz/english_to_spanish/
southern association of colleges and universities	asociación sureña de universidades y colegios	http://www.proz.com/kudoz/english_to_spanish/
SSN	NSS	http://www.proz.com/kudoz/english_to_spanish/
state defined course flags	indicadores del estado del curso definido	http://www.proz.com/kudoz/english_to_spanish/
student plan date	plan de estudios del estudiante	http://www.proz.com/kudoz/english_to_spanish/
substitution course	curso suplementario	http://www.linguee.es/espanol-ingles/search?so
summer session	curso de verano	http://www.linguee.es/espanol-ingles/search?so
third party	terceros	http://www.proz.com/kudoz/english_to_spanish/
transferred course	curso transferido	http://www.linguee.es/espanol-ingles/search?so
Ad. Thinking skills	aptitudes para pensamiento creativo	https://es.wikipedia.org/wiki/Pensamiento_creativo
Adv. Computer	computación avanzada	http://fmachado.dei.uc.pt/wp-content/papercite-
AP chemistry	química aplicada	http://www.proz.com/kudoz/english_to_spanish/
certificate number	número de certificado	http://www.proz.com/kudoz/english_to_spanish/
comissioned	comisionando	https://en.wikipedia.org/wiki/Officer_(armed_forces)
Community Serv.	servicio comunitario	http://www.linguee.es/espanol-ingles/search?so
composite	composición	http://www.wordreference.com/es/translation.asp
date graduated	fecha de graduación	http://www.proz.com/kudoz/english_to_spanish/
enrolled	inscrito	http://www.wordreference.com/es/translation.asp
essay rating	índice en redacción de ensayo	http://www.linguee.es/espanol-ingles/search?so
graded unit	unidad clasificada	http://www.linguee.es/espanol-ingles/search?so
graduated system	sistema de graduación	http://www.linguee.es/espanol-ingles/search?so
graduated	graduado	http://www.wordreference.com/es/translation.asp
guardian	custodio	http://www.wordreference.com/es/translation.asp
handicrafts	manualidades	http://www.wordreference.com/es/translation.asp
listening	comprensión auditiva	http://www.wordreference.com/es/translation.asp
notary public	notario público	http://www.proz.com/kudoz/english_to_spanish/
over all average	promedio total	http://www.linguee.es/espanol-ingles/search?so
reading	lectura	http://www.wordreference.com/es/translation.asp
record	registro	http://www.proz.com/?sp=gloss/term&id=150808
secretary of state	secretaría del Estado	http://www.proz.com/kudoz/english_to_spanish/
school official	autoridad del colegio	http://www.proz.com/kudoz/english_to_spanish/
signature block	sección de la firma	http://www.linguee.es/espanol-ingles/search?so
speech & debate	discurso & debate	http://www.linguee.es/espanol-ingles/search?so
total score	calificación total/puntaje total	http://www.proz.com/kudoz/english_to_spanish/
unit attempted	unidad tentativa	http://www.linguee.es/espanol-ingles/search?so
unit earned	unidad obtenida	http://www.linguee.es/espanol-ingles/search?so
weighted by	avalado por/ poderado por	http://www.linguee.es/espanol-ingles/search?so

Terminos Español Inglés		
Ministerio de Educación	Ministry of Education	http://www.education.govt.nz/minis
Viceministerio de Educación Regular	Vice-Ministry of Regular Edu	http://www.proz.com/kudoz/spanish
Dirección Departamental	Departmental Office	https://www.treasury.gov/about/his
educación formal	formal education	http://www.infed.org/foundations/i
dirección distrital	district	http://www.wordreference.com/es/
turno	shift	http://www.wordreference.com/es/
calificaciones	achievement records	http://www.nzqa.govt.nz/qualificatic
promedio de promoción	graduation average	http://gradschool.about.com/od/adm
ciencias naturales	natural sciences	http://www.undergraduate.study.car
educación cívica	civics	https://www.icivics.org/
artes plásticas	fine arts	https://www.nyfa.edu/bfa/
religión & moral	religion & morality	http://plato.stanford.edu/entries/rel
legalización	legatization	https://en.wikipedia.org/wiki/Legaliz
plan de estudios	endorsement	http://dictionary.reference.com/brov
rúbrica	endorsement	http://dictionary.reference.com/brov
técnico en legalizaciones	legalization technician	
unidad de asuntos administrativos	unit of management affairs	http://finland.usembassy.gov/manag
director distrital	district director	https://www.deltasigmapi.org/about
valores de las calificaciones	grades values	http://www.sjsu.edu/registrar/stude
rendimiento óptimo	optimal performance	http://www.sjsu.edu/registrar/stude
rendimiento satisfactorio	satisfactory performance	http://www.sjsu.edu/registrar/stude
rendimiento no satisfactorio	unsatisfactory performance	http://www.sjsu.edu/registrar/stude
pie de firma	name and title of signatory	http://www.proz.com/kudoz/spanish
educación privada	private education	http://www.thefreedictionary.com/P http://www.telegraph.co.uk/educati
resolución ministerial	ministeral resolution	http://www.ilo.org/dyn/travail/docs/
ADM de recursos humanos	human resources managemen	http://www.businessdictionary.com/
administración de costos	costs management	http://whatis.techtarget.com/definit
administrativa gerencial	administrative - Mgmt.	http://www.businessdictionary.com/
admistración internacional	international mgmt.	http://www.kcl.ac.uk/study/postgrad
análisis complejo	complex analysis	https://en.wikipedia.org/wiki/Compl
carrera	degree/major	http://admissions.umich.edu/academ
carrera de admonstración de empre	business administration dep	https://www.mum.edu/business/
colegio nacional	national college	https://www.national-college.edu/
complementación cuantitativa	quantitative supplement	http://ieeexplore.ieee.org/xpl/login
correlativo	correlative/corresponding	http://www.proz.com/kudoz/spanish
decanato	dean office	https://cns.utexas.edu/deans-office
decano a.i.	dean <i>a.i.</i>	https://www.linkedin.com/title/dear
deficiente	deficient	http://www.wordreference.com/es/
director de carrera	Head of Department	http://www.plantsci.cam.ac.uk/intra
distinguido	with distinction; honours	
encargado de kardex	registrar's office	http://www.susla.edu/registrars-offi
facultad	faculty	http://www.ucl.ac.uk/departments/f
facultad de ciencias económicas y fi	faculty of economics and fina	http://www.uj.ac.za/faculties/fefs
facultad de ciencias puras	pure and natura sciences coll	http://www.ecc.edu.jm/academics/fi
geometría algebraica	algebraic geometry	https://en.wikipedia.org/wiki/Algebr
gestión académica	academic year	http://www.ed.ac.uk/news/semeste

gestión académica	academic year	http://www.ed.ac.uk/news/semeste
investigación operativa	operations research	https://en.wikipedia.org/wiki/Opera
macroeconomía	macroeconomics	https://clep.collegeboard.org/exam/
matemática financiera	financial mathematics	http://finmath.stanford.edu/
médico veterinario	veterinary surgeons	http://www.rcvs.org.uk/home/
mercadotenia	marketing	http://www.worldwidelearn.com/on
muy bueno	very good	
periodo lectivo	annual term	http://english.stackexchange.com/qu
registro universitario	university register	http://www.proz.com/kudoz/spanish
sistemas organizacionales	organizational systems	http://www.ehow.com/info_8403547
taller de finanzas	finance workshop	http://faculty.chicagobooth.edu/wor
tópicos de geometría y topología	topics of geometry and topol	https://en.wikipedia.org/wiki/List_of
vicedecano	vice-dean	http://web.law.columbia.edu/deans-
vicerector	vice-chancellor	http://www.v-c.admin.cam.ac.uk/rol
colegio nacional	national college	https://www.national-college.edu/
colegio departamental	departmental college	http://dce.rajasthan.gov.in/
certificado de vacunación	vaccination certificate	http://www.who.int/ihr/ports_airpor
matrícula	ID number	https://en.wikipedia.org/wiki/Natio
vacuna	vaccine	https://en.wikipedia.org/wiki/Vaccin
consultorio veterinario	veterinary clinic	http://unionvetclinic.com/
médico veterinario zoot.	surgeon in veterinary medicin	https://www.avma.org/ProfessionalC
serie	series	http://www.proz.com/kudoz/spanish
diploma de bachiller	high school diploma	https://en.wikipedia.org/wiki/High_s
Constitución Política del Estado	Political Constitution of the S	http://portal.te.gob.mx/en/consultat
Decreto Supremo	Supreme Decree	http://www.cremades.com/pics/cont
estudios superiores	higher education studies	http://www.ccsenet.org/journal/inde
viceministerio de gestión institucion	vice-ministry of institutional and consular management	
dirección gral. De coordinación insti	general office if institutional coordination and authentications	
Ministerio de Relaciones Exteriores	Ministry of Foreign Affairs	https://www.regjeringen.no/en/dep
jefe de la unidad de legalizaciones	chief of authentication unit	http://manuals.konicaminolta.eu/biz
unidad de asuntos administrativos	administrative services unit	
fotocopia legalizada	certified copy	https://en.wikipedia.org/wiki/Certifi
pago autorizado	certified payment; certified f	https://certifiedpayments.net/FAQ.a
pago autorizado	university regulation	http://www2.warwick.ac.uk/services
licenciado en economía	bachelor of economics	http://www.uts.edu.au/future-stude
Gran Sello	Great Seal	https://en.wikipedia.org/wiki/Great_
secretario general	General Secretary	https://en.wikipedia.org/wiki/Gener
legalizaciones	legalizations	https://en.wikipedia.org/wiki/Legaliz
Resolución Rectoral	Chancellor's Resolution	http://www.proz.com/kudoz/spanish
Firma Digitalizada	Digitalized Signature	http://www.signix.com/blog/bid/994 http://itlaw.wikia.com/wiki/Digitizec
		https://www.google.com/url?sa=t&r https://www.google.com/url?sa=t&r
Comité Ejecutivo	Executive Committee	
Honorable Consejo Universitario	Honorable University Council	http://womencampus.ksu.edu.sa/en
técnico división documentos y archi	technician of papers and file	http://www.escondido.org/police-re
reverso	overleaf	http://www.thefreedictionary.com/c
Rector Nacional	National Chancellor	http://www.nu.edu/OurUniversity/TI

título profesional	professional degree	http://gradschool.cornell.edu/require
ingeniería ambiental	environmental engineering	https://en.wikipedia.org/wiki/Enviro
grado académico	academic degree	http://learn.org/articles/What_are_A
licenciado	bachelor's degree	https://en.wikipedia.org/wiki/Bachel
título	degree	https://en.wikipedia.org/wiki/First_ç
Jefe del Depto. de Registros	Chief of the Records Department	http://www.proz.com/kudoz/spanish
Lic.	BSc. / Bachelor	http://www.proz.com/kudoz/spanish
Facultad de Ciencias Exactas e Ingenierías	Department of Exact Sciences and Engineering	
modalidad de graduación	modality for the Award of Degree	http://www.proz.com/kudoz/spanish
examen de Proyecto de Grado	Exam of Graduate Project	http://education.jhu.edu/Academics
	graduation project	http://www.scasd.org/domain/1186
		http://studiegids.tue.nl/schakelprogr
Proyecto de Graduación	Project Graduation	http://en.wikipedia.org/wiki/Project
		http://bbrook.k12.nj.us/Page/459
Dr.	Ph.D.	http://www.proz.com/kudoz/spanish
médico cirujano	Medical degree	http://www.proz.com/kudoz/spanish
Tribunal Supremo Electoral	Supreme Electoral Court; Supreme Electoral Tribunal	http://www.wordreference.com/es/i
		http://forum.wordreference.com/shc
		http://en.wikipedia.org/wiki/Nationa
Servicio de Registro Cívico	Civil Registration Office	http://www.proz.com/kudoz/spanish
costo formulario	form fee	http://www.uscis.gov/forms
certificado de nacimiento	Birth certificate	http://www.kdheks.gov/vital/birth.h
Oficialía	Civil Registry Office	http://www.proz.com/kudoz/spanish
libro	book of record of birth	http://www.proz.com/kudoz/spanish
localidad	place	http://forum.wordreference.com/thr
administrativo	administrative assistant	http://www.proz.com/kudoz/spanish
trámites	procedures	http://www.linguee.es/espanol-ingle
folio	page	http://www.proz.com/kudoz/spanish
partida	(birth) registration	http://www.proz.com/kudoz/spanish
provincia	province	http://www.wordreference.com/es/i
lugar de nacimiento	birthplace	http://www.proz.com/kudoz/english
hora	time of birth	http://www.proz.com/kudoz/english
lugar y fecha de emisión	place and date of issuance	http://www.linguee.es/ingles-espan
certificado de nacimiento original	Official Birth Certificate	https://www.vitalchek.com/birth-cer
certificado de defunción	Death Certificate	https://www.vitalchek.com/death-ce
escuela pública; colegio público	state school	http://www.wordreference.com/es/i
enfermera diplomada	State Registered Nurse	http://www.wordreference.com/es/i

ANNEX 2

**AN EXAMPLE OF TMs
AND THE CORPUS**

PLURINATIONAL STATE OF BOLIVIA

PLURINATIONAL STATE OF BOLIVIA MINISTRY OF EDUCATION VICE-MINISTRY OF REGULAR EDUCATION DEPARTMENTAL OFFICE OF EDUCATION LA PAZ VICE-MINISTRY OF REGULAR EDUCATION							
LAW 070							N°
LAW 070							N°
PRICE Bs. 3.- SERIES Nº A/2013 DDELPZ 01	DEPARTMENTAL OFFICE OF EDUCATION OF LA PAZ CERTIFIES THAT: FORMAL EDUCATION TRANSCRIPT						
THE DEPARTMENTAL OFFICE OF EDUCATION OF LA PAZ CERTIFIES THAT:							
The student: (Name)							
School:		Year:	District:	Book N°:		PageN°:	
The student: (Name) Shift:							
School:				District:			
Type of school:				Shift:			
The student is promoted in the respective subjects to				Grade according to the evaluation system and			
she obtained the following:				Cod. SIE:			
has being promoted in the respective subjects to Grade according to the evaluation system and she obtained the following:							
ACHIEVEMENT RECORDS							
SUBJECTS		GRADUATION AVERAGE		GRADUATION DATE	OBSERVATIONS		
		NUMERAL	LITERAL				
SUBJECTS		GRADUATION AVERAGE		GRADUATION DATE	OBSERVATIONS		
LANGUAGE – LITERATURE		NUMERAL	LITERAL				
MATHEMATICS				(DATE)	PASSED (SCHOOL) I 2017 - Bolivia		
PSYCHOLOGY LITERATURE							
NATURAL SCIENCES							
PSYCHOLOGY							
NATURAL SCIENCES							
SOCIAL STUDIES							
HISTORY							
GEOGRAPHY							
HISTORY							
GEOGRAPHY							
ENGLISH							
OTHER LANGUAGES							
PHYSICAL AND HEALTH EDUCATION							
MUSIC AND ARTS EDUCATION							
PHYSICAL AND HEALTH EDUCATION							
MUSIC AND ARTS EDUCATION							
FINE ARTS				RES. MIN. S/N 28 MARCH 1908			
RELIGION AND MORALITY							
(PHOTO)		Place and date:					
		Place and date:					

Corpus

Nombre	Fecha de modifica...	Tipo
 ESPAÑOL-INGLÉS	12/04/2016 08:04 ...	Carpeta de archivos
 INGLÉS-ESPAÑOL	07/04/2016 06:48 a...	Carpeta de archivos
 PORTUGUES-ESPAÑOL	12/04/2016 08:34 ...	Carpeta de archivos

Spanish – English

Nombre	Fecha de modifica...	Tipo
 certificados de notas	28/08/2016 07:30 ...	Carpeta de archivos
 Diploma de Bachiller	28/08/2016 07:30 ...	Carpeta de archivos
 diplomados	12/04/2016 07:57 ...	Carpeta de archivos
 Informes	06/02/2014 09:13 ...	Carpeta de archivos
 pasaportes	12/04/2016 08:06 ...	Carpeta de archivos

English – Spanish

Nombre	Fecha de modifica...	Tipo
 CERTIFICADO DE NOTAS	07/04/2016 02:18 ...	Carpeta de archivos
 certificados conclusión plan de estudios	12/04/2016 07:23 ...	Carpeta de archivos
 CERTIFICADOS DE AFILIACIÓN	12/04/2016 07:25 ...	Carpeta de archivos
 CERTIFICADOS DE CONFIRMACIÓN	12/04/2016 07:28 ...	Carpeta de archivos

Portuguese – Spanish

Nombre	Fecha de modifica...	Tip
 CERTIFICADOS DE NOTAS	12/04/2016 08:32 ...	Car

ANNEX 3

USER'S HANDBOOK

Manual del usuario sistema "CETI ELECTRONIC TEXT CORPORA"

Tenemos el orgullo de presentar el manual del usuario del sistema realizado como parte de la propuesta del trabajo dirigido que se realizó en la gestión Mayo-Diciembre del 2013.

8. Link de ingreso:

<http://fhcenet.umsa.bo/DICCIONARIO/>

9. Interfaz de bienvenida



Una vez el usuario ha ingresado estas son las opciones que podrá hallar:



10. Usuarios:

a) Ingreso del administrador y sus funciones:

- El administrador es la persona que puede asignar nuevos usuarios y darles una cuenta

Registro de Usuarios		
(*)Apellido Paterno	:	<input type="text"/>
(*)Apellido Materno	:	<input type="text"/>
(*)Nombres	:	<input type="text"/>
(*)Nombre de usuario	:	<input type="text"/>
(*)Contraseña	:	<input type="text"/>
(*)Repita la Contraseña	:	<input type="text"/>
(*)Fecha de nacimiento	:	<input type="text"/> ...
(*)Sexo	:	Femenino ▾
(*)Rol del usuario	:	Administrador ▾



Todos los campos deben ser llenados

- Así también tiene el poder de modificarlos y eliminarlos
- Por otra parte, en el diccionario sólo el administrador puede modificar, eliminar o añadir nuevos términos, eso será detallado en el punto “ingreso al diccionario”

b) Ingreso de los traductores y sus funciones

- Los traductores sólo pueden ingresar al diccionario y hacer las consultas del caso no pueden añadir ni modificar ni eliminar ningún término.

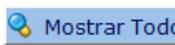
11. Ingreso al diccionario:

a) Hacer click en “diccionario”.

b) Interfaz

Palabras registradas 377					
Buscador de Palabras					
Palabra a buscar	:	<input type="text"/>			
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN	

c) Al ingresar la palabra se debe tener en cuenta el idioma para poder hacerle click en la opción de búsqueda, en este caso “Buscar Inglés”.

Buscador de Palabras					
Palabra a buscar	:	<input type="text" value="faculty"/>			
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN	

d) En caso de oprimir la opción equivocada, es decir “Buscar Español” no saldrá ninguna palabra, mientras que si se oprime “Buscar Inglés” saldrán las opciones correctas para su uso en la traducción:

Buscador de Palabras					
Palabra a buscar	:	<input type="text"/>			
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN	
102	facultad de ciencias económicas y financieras	faculty of economics and financial sciences	http://www.uj.ac.za/faculties/fefs	Seleccionar	
232	facultad de ciencias sociales	faculty of social sciences	http://www.linguee.es/espanol-ingles/search?source=auto&query=faculty-of-social-scienos	Seleccionar	

- e) Como podrán notar, la palabra cuenta con su traducción además de la fuente que es el link de donde la traducción de esa palabra fue extraída así puede ser consultado si así se requiere.
- f) En caso de los traductores estas son las funciones básicas siendo que si desean añadir, modificar o eliminar algún término debe ser consultado con el administrador principal (El director del CETI) para realizar estas acciones, es así que estas son las funciones que presenta el administrador para este sistema.
 - En el caso del administrador estas son las opciones:

Registro / Modificación de palabras		
(*)Palabra Español	:	<input type="text"/>
(*)Palabra Inglés	:	<input type="text"/>
(*)Fuente Web	:	<input type="text"/>
Los campos marcados con (*) deben ser llenados obligatoriamente		
<input type="button" value="Guardar"/>	<input type="button" value="Modificar"/>	<input type="button" value="Eliminar"/>

- En el caso de añadir nueva palabra el registro debe ser llenado en todos sus campos y presionar el botón de guardar.
- Para la opción de eliminar y modificar el termino debe ser seleccionado previamente:

Buscador de Palabras					
Palabra a buscar	:	<input type="text"/>	<input type="button" value="Buscar Español"/>	<input type="button" value="Buscar Inglés"/>	<input type="button" value="Mostrar Todo"/>
ID	PALABRA ESPAÑOL	PALABRA INGLÉS	FUENTE	OPCIÓN	
102	facultad de ciencias económicas y financieras	faculty of economics and financial sciences	http://www.uj.ac.za/faculties/fefs	<input type="button" value="Seleccionar"/>	
232	facultad de ciencias sociales	faculty of social sciences	http://www.linguee.es/espanol-ingles/search?source=auto&query=faculty+of+social+sciences	<input type="button" value="Seleccionar"/>	

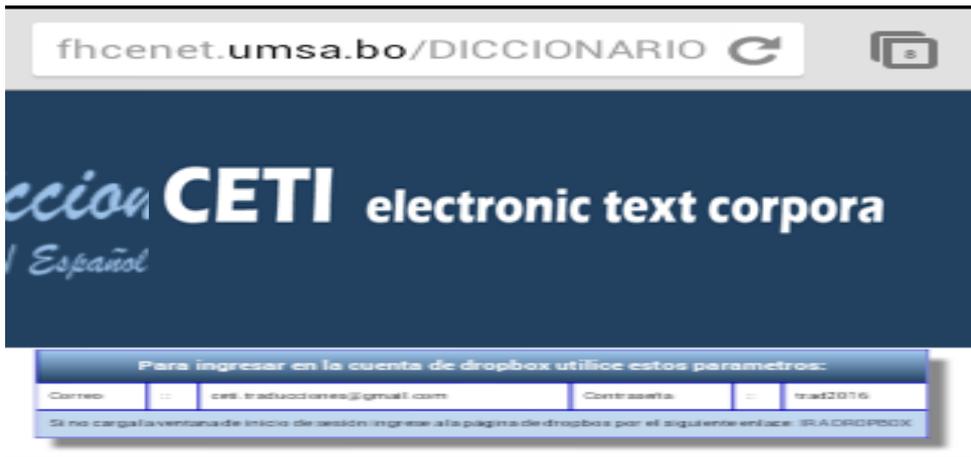
- Entonces una vez seleccionado el termino el registro se llena automáticamente:

(*)Palabra Español	:	facultad de ciencias económica
(*)Palabra Inglés	:	faculty of economics and finanti
(*)Fuente Web	:	http://www.uj.ac.za/faculties/fefs
Los campos marcados con (*) deben ser llenados obligatoriamente		
<input type="button" value="Guardar"/>	<input type="button" value="Modificar"/>	<input type="button" value="Eliminar"/>

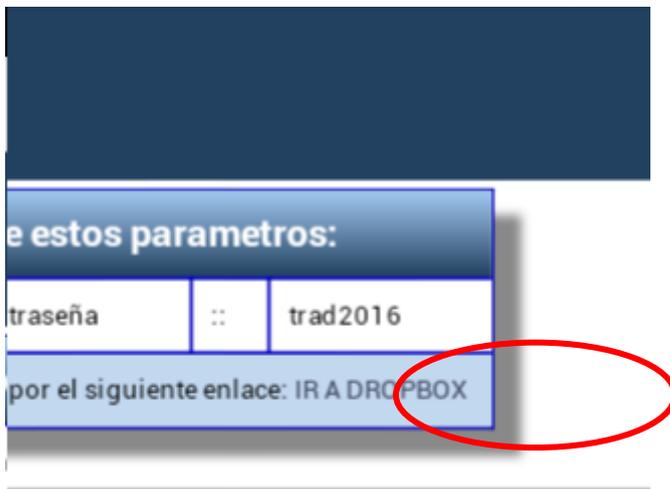
- Así uno debe modificar el término que desee y presionar modificar o eliminar en caso de que quiera hacerlo
- En el caso de los usuarios comunes o traductores estas son las opciones:

12. MEMORIAS DE TRADUCCIÓN

- a) Para ingresar a las memorias de traducción uno debe hacer click en el enlace “Memorias de traducción” e inmediatamente sale este cuadro:



- b) Cabe mencionar que las memorias están almacenadas en una cuenta privada del servidor en nube "Dropbox" por lo que en el sistema detalla la cuenta y la contraseña con la que se puede ingresar
- c) En la tabla se brinda un link para ingresar al servidor del Dropbox:



- d) Una vez en el servidor uno introduce la cuenta y la contraseña y podrá ingresar a las memorias que están clasificadas de forma eficiente para ser consultadas y utilizadas así como es posible también añadir más memorias para hacer de este un banco de datos más grande.

ANNEX 4

TECHNICAL HANDBOOK



CETI electronic text corpora

Versión 2016

MANUAL TÉCNICO

Introducción

En el siguiente manual se explican los aspectos más importantes en el diseño del sistema “CETI Electronic Text Corpora”, dentro del manual, se encuentra una serie de diagramas y flujo gramas que le darán a conocer la forma lógica del funcionamiento del sistema que ayudara a su manejo, así mismo se busca que este manual sea la referencia necesaria para que se pueda ampliar y/o mejorar el sistema por cualquier personal que no haya participado en el proceso de desarrollo del sistema.

En una primera parte se hace detalle sobre los requerimientos del sistema, realizando las respectivas especificaciones de los mismos, seguidamente se especifican las herramientas utilizadas para su desarrollo y posteriormente se especifica el funcionamiento del sistema.

Objetivo Principal

El objetivo principal de este software es el de almacenar la terminología recolectada de todos los documentos académico legales del CETI (Centro de enseñanza y traducción de idiomas) así mismo como las memorias de traducción de dichos documentos.

Misión:

La misión de este software es el de ser la herramienta perfecta para los traductores de la institución así mismo como la de coadyuvar al desarrollo de futuras traducciones esta vez estandarizadas gracias a que todos manejarían la terminología aquí expuesta.

Visión:

Convertirse en una de las herramientas principales en las traducciones llevadas a cabo en esta institución, así mismo éste busca ser mejorado con el tiempo haciéndolo sumamente útil y hasta servir de referencia para futuros proyectos a nivel local y nacional.

Logotipo



Perspectiva del producto

Este sistema estará instalado en un equipo servidor, al cual los diferentes usuarios podrán acceder desde cualquier equipo que cuente con una conexión a internet.

La interacción con los usuarios será a través de un navegador web.

Funcionalidad del producto

El sistema tendrá funciones tales como altas, bajas y modificaciones.

Altas: las altas de este sistema serán acerca de los nuevos usuarios del sistema y de las nuevas palabras o frases.

Bajas: las bajas serían, en caso contrario a las altas, pero solo en el caso de las palabras o frases, no se eliminarán usuarios.

Modificaciones: tanto los usuarios como las palabras o frases podrán ser modificadas.

Características de los usuarios

Tipo de usuario	Administrador
Habilidades	Habilidades básicas de manejo de una PC.
Actividades	Altas y cambios de usuarios. Altas, bajas y cambios en el registro de palabras o frases en el

Tipo de usuario	Operador
Habilidades	Habilidades básicas de manejo de una PC.
Actividades	Altas, bajas y cambios en el registro de palabras o frases en el sistema.

Restricciones

Sólo los usuarios registrados podrán hacer uso del sistema, además que de acuerdo a su rol solo podrán acceder a ciertas funcionalidades.

El sistema solo podrá funcionar con equipos que cuenten con una conexión a internet o que esten con conexión de red interna hacia el servidor donde se encuentra alojado el sistema.

Suposiciones y dependencias

En caso de que el equipo desde donde se quiera acceder al sistema no cuenten con una conexión como la descrita en el punto anterior no podrá acceder al sistema.

Requisitos específicos

Número de requisito	R1
Nombre de requisito	Requisito de autenticación
Tipo	X Requisito Restricción

Fuente del requisito	Todos los usuarios deberán introducir en la pantalla de "login" un usuario y contraseña válidos en el sistema para poder entrar a éste.		
Prioridad del requisito	X Alta/Esencial	Media/Deseado	Baja/

Número de requisito	R2		
Nombre de requisito	Requisito de descripción		
Tipo	Requisito	X Restricción	
Fuente del requisito	El sistema debe manejar el acceso a sus diferentes opciones por medio de el rol asignado a cada usuario		
Prioridad del requisito	X Alta/Esencial	Media/Deseado	Baja/

Número de requisito	R3		
Nombre de requisito	Requisito de visibilidad		
Tipo	X Requisito	Restricción	
Fuente del requisito	Todas las palabras o frases registradas deben poder visualizarse desde el mismo formulario de registro de palabras o frases.		
Prioridad del requisito	X Alta/Esencial	Media/Deseado	Baja/

Número de requisito	R4		
Nombre de requisito	Requisito de seguridad		
Tipo	X Requisito	Restricción	
Fuente del requisito	Todos los usuarios del sistema deben poder realizar la modificación de sus claves de acceso		
Prioridad del requisito	Alta/Esencial	X Media/Deseado	Baja/

Número de requisito	R5		
Nombre de requisito	Requisito de visibilidad		
Tipo	X Requisito	Restricción	
Fuente del requisito	Habilitar el acceso, mediante el mismo sistema, a una cuenta de dropbox donde se cuenta con las		
Prioridad del requisito	Alta/Esencial	X Media/Deseado	Baja/

Requisitos comunes de las interfaces

La interfaz de login necesita como entrada un usuario y contraseña válidos para poder dar acceso a la siguiente interfaz.

La de interfaz de diccionario contara con un formulario para el registro de las palabras o frases, así mismo contara con un buscador de palabras o frases, estos formulario permitirán el ingreso de información para el funcionamiento del sistema.

En la misma interfaz de diccionario se contará con una grilla de resultados que proporcionara los resultados del formulario de búsqueda.

La interfaz del módulo de cambio de contraseña requerirá como entrada la contraseña actual del usuario y la nueva contraseña que desea para su acceso al sistema, por seguridad se pedirá que la nueva contraseña sea ingresada 2 veces.

La interfaz del módulo de usuarios necesita como entrada los datos del usuario en caso de que el mismo no se encuentre registrado aun en el sistema.

La interfaz para el acceso a las memorias de traducción deberá tener como entrada el usuario y su contraseña respectiva en dropbox

Interfaces de usuario

La interfaz en uso deberá mostrar a los usuarios solamente la información necesaria para realizar cualquier operación.

Interfaces de hardware

El monitor: éste deberá mostrar las interfaces así como la información necesaria para que el usuario pueda trabajar adecuadamente con el sistema.

El ratón: el sistema requerirá del ratón para que el usuario pueda realizar selecciones y oprimir botones.

El teclado: el sistema permitirá al usuario introducir datos mediante el teclado.
Impresora de tickets: el sistema arrojará el desglose de la compra a través un ticket para el cliente.

Interfaces de software

Navegador web: el equipo desde donde quiera ingresar al sistema el usuario deberá tener instalado un navegador web, el sistema es compatible con la mayoría de los navegadores web.

Interfaces de comunicación

El sistema se comunica con su base de datos vía ORM a través de la librería open source ajayu.

Requisitos funcionales

El sistema permitirá la entrada a los usuarios que cuenten con la autorización necesaria. El sistema recibirá palabras o frases con su respectiva traducción y fuente y los almacenará en la base de datos para futuras consultas y diversas operaciones. En el caso de que una palabra o frase esté mal registrada, el sistema deberá permitir modificar o eliminar el registro.

El sistema deberá permitir el acceso a una cuenta de dropbox para la revisión de memorias de traducción

Requisito funcional 1 Autenticación

El usuario deberá proporcionar un usuario y contraseña válidos para poder tener acceso al sistema.

Requisito funcional 2 Diccionario

El sistema deberá proporcionar las interfaces necesarias para el registro, modificación o eliminación de nuevas palabras o frases así como también las correspondientes herramientas de búsqueda.

Requisito funcional 3 Acceso a una cuenta de Dropbox

El sistema debe tener una interface que permita el acceso a dropbox desde el mismo sistema.

Requisitos no funcionales

Rendimiento

Requisito de respuesta

El sistema ofrecerá respuesta al usuario en tiempo real.

Seguridad

Requisito funcional-Seguridad 1: Requisito de autenticación

El sistema requerirá de un usuario y contraseña válidos para poder permitir el acceso.

Requisito funcional-Seguridad 2: Requisito de división de módulos

El sistema tendrá separados los módulos a los que puede acceder un usuario convencional de los módulos a los que puede acceder el usuario administrador.

Requisito funcional-Seguridad 3: Requisito de conexión.

El sistema sólo tendrá abierta la conexión a la base de datos mientras se ejecuta la transacción.

Requisito funcional-Fiabilidad

Requisito conexión

El sistema cerrará las conexiones inmediatamente terminando cualquier ejecución para evitar pérdida de datos a cualquier percance inesperado.

Disponibilidad

En funcionamiento normal el sistema debe estar disponible todo el tiempo

Mantenibilidad

Requisito funcional-Mantenibilidad 1: Requisito de mantenimiento

El sistema por seguridad debe contar con backups de la base de datos.

Portabilidad

Requisito funcional-Portabilidad 1: Requisito de SW

Debido a las herramientas con las que fue desarrollado el sistema puede ser ejecutado en cualquier servidor que tenga instalado java, tomcat y postgres en el lado del servidor y puede ser accesado desde cualquier navegador actual.

Requisito funcional-Portabilidad 2: Requisito de HW

El sistema es compatible con la mayoría de los servidores que soporten los requisitos software mencionados anteriormente a nivel servidor, por el lado del cliente se necesita un dispositivo con acceso a internet y un navegador.

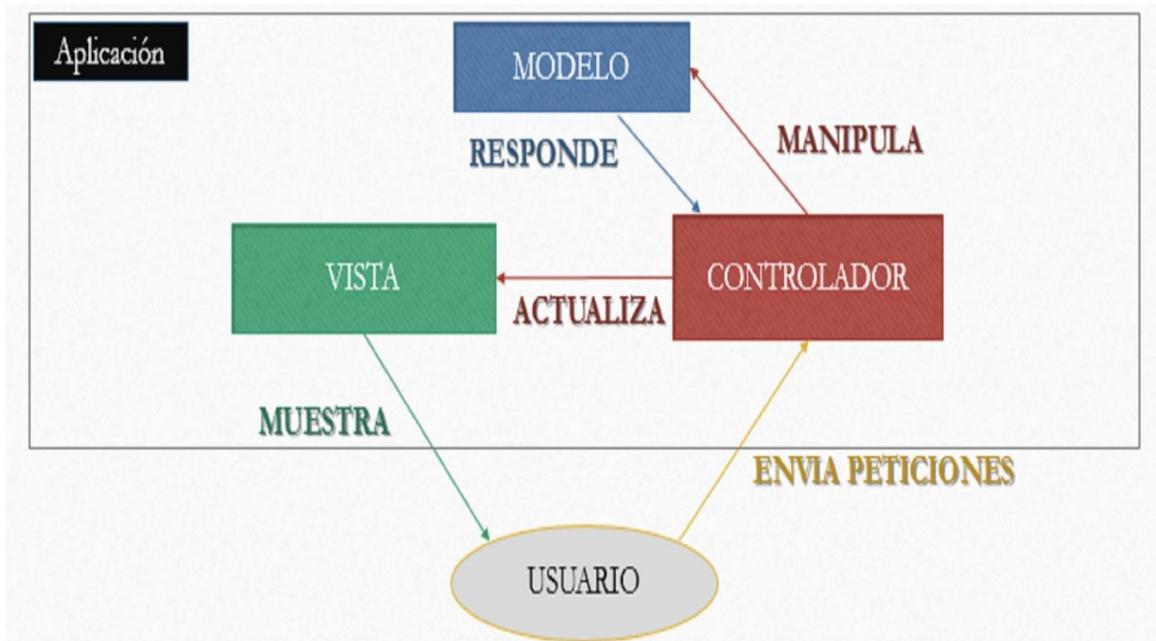
Herramientas utilizadas

Para el desarrollo del sistema se utilizaron las siguientes herramientas:

- Gestor de base de datos PostgreSQL
- Lenguaje de programación JAVA versión 8
- HTML, JSP, CSS para el diseño de las interfaces
- Librería SPRING (para implementar de manera más fácil el patron Vista – Controlador).
- Librería AJAYU (para utilizar ORM – Mapo Objeto Relacional en el acceso a la base de datos).

Arquitectura del sistema

Se utilizó el modelo vista controlador (MVC) que es un estilo de arquitectura de software que separa los datos de una aplicación, la interfaz de usuario, y la lógica de control en tres componentes distintos, que interactúan entre ellos.



Diagramas generales del Sistema

Diagrama de clases

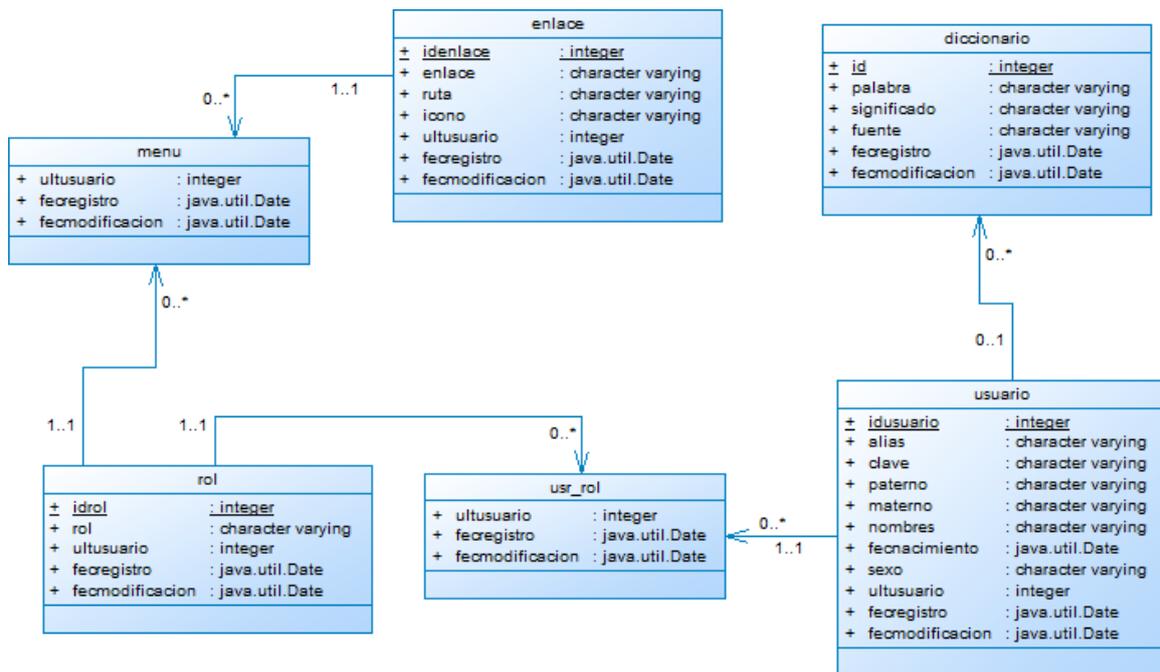


Diagrama E-R

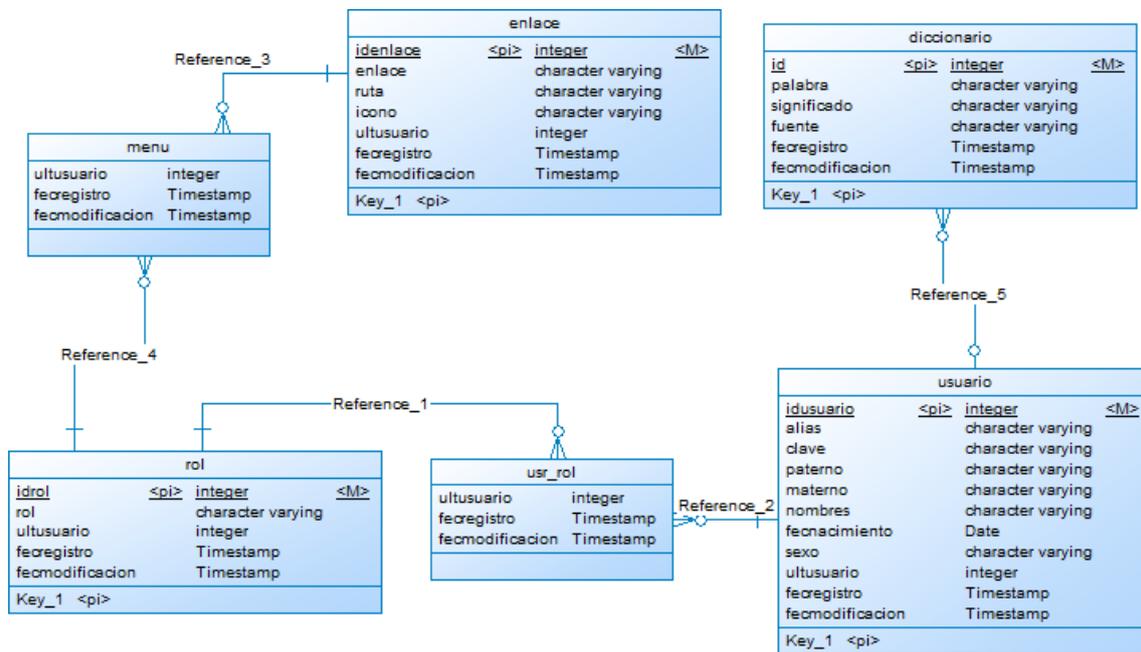
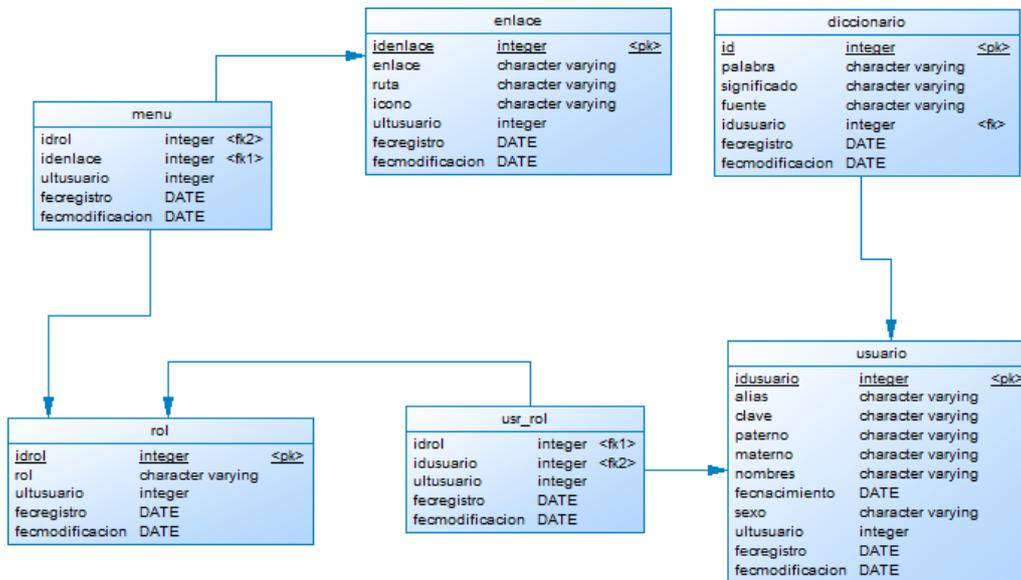
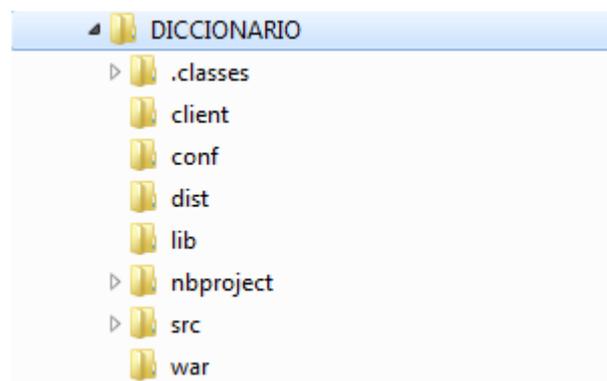


Diagrama físico de la base de datos



Archivos fuentes del sistema

Los archivos fuentes del sistema están estructurados bajo el siguiente esquema:



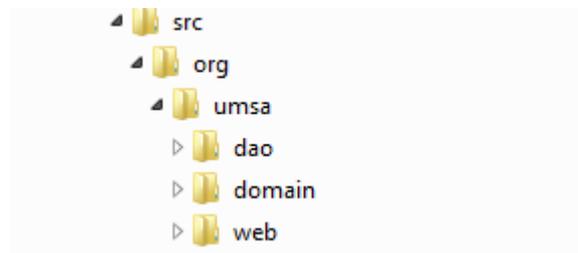
Donde:

- DICCIONARIO - es la carpeta principal.
- src – contiene los archivos fuente (archivos .java) de la aplicación.
- war – contiene los archivos para las interfaces de usuario (archivos .jsp, .css, .js, imágenes, etc).
- lib – contiene las librerías necesarias para el funcionamiento del sistema (en su mayoría son archivos .jar).
- dist – contiene los archivos necesarios para realizar la distribución del sistemas (en este caso un archivo .war para subirlo a un servidor TOMCAT)

las demás carpetas son propias de la herramienta de desarrollo.

Como IDE de desarrollo se utilizó Netbeans 8.

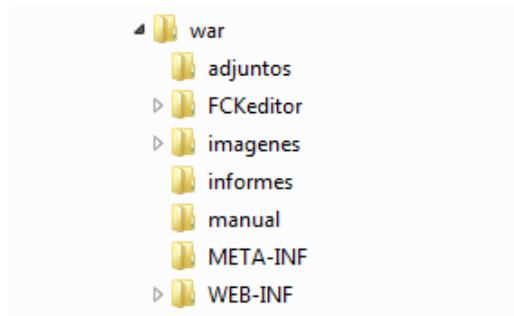
La carpeta src tiene el siguiente esquema:



las primeras 2 carpetas son utilizadas más por convención (org y umsa), las siguientes 3 carpetas contienen:

- dao: aquí se colocan los archivos necesarios para la interacción con la base de datos, al usar la librería AJAYU esta carpeta ya no se la utiliza pero por la estructura del framework SPRING debe seguir ahí.
- domain: en esta carpeta están los archivos del núcleo del sistema, archivos base que se corresponden con la base de datos.
- web: en esta carpeta están los archivos relacionados con la lógica del sistema (Controladores).

La carpeta war, tiene el siguiente esquema:



donde:

- las carpetas adjuntos, FCKeditor, imagenes, informes y manual son carpetas autogeneradas por el framework para un entorno de trabajo mas ordenado.
- META-INF: contiene los metadatos del sistema.
- WEB-INF contiene todos los archivos .html, .jsp, .css, .js, etc. que son necesarios para las interfaces de usuario (Vistas).

Ejemplo de archivo java (Controlador)

```

1 package org.umsa.web.administrador;
2
3 import java.io.*;
4 import java.sql.*;
5 import javax.servlet.http.HttpServletRequest;
6 import javax.servlet.http.HttpServletResponse;
7 import java.util.*;
8
9 import javax.servlet.ServletOutputStream;
10 import net.sf.jasperreports.engine.JasperCompileManager;
11 import net.sf.jasperreports.engine.JasperExportManager;
12 import net.sf.jasperreports.engine.JasperFillManager;
13 import org.umsa.domain.Usuario;
14 import org.umsa.domain.Logic.MiFacade;
15 import org.springframework.web.servlet.ModelAndView;
16 import org.springframework.web.servlet.mvc.Controller;
17
18 public class passwords implements Controller {
19
20     private MiFacade mi;
21
22     public void setMi(MiFacade mi) {
23         this.mi = mi;
24     }
25
26     public ModelAndView handleRequest(HttpServletRequest request, HttpServletResponse response) throws Exception {
27         Map modelo = new HashMap();
28         Map modelo1 = new HashMap();
29         Usuario cliente = (Usuario) request.getSession().getAttribute("__sess_cliente");
30         String tipo = request.getParameter("tipo");
31         String idprograma = request.getParameter("idprograma");
32         modelo1.put("idprograma", idprograma);
33         String direccion = "/opt/tomcat/webapps/SIGDOC/WEB-INF/jsp/reportes/usuarios/";
34         String reporte = new String();
35         if(tipo.equals("docente"))
36             reporte = "password_doc";
37         else if(tipo.equals("coordinador"))
38             reporte = "password_coord";
39         else if(tipo.equals("director"))
40             reporte = "password_dir";
41         try{
42             String url = "jdbc:postgresql://localhost:5432/postgrado";
43             Class.forName("org.postgresql.Driver").newInstance();
44             Connection conn = DriverManager.getConnection(url, "postgres", null);
45             JasperCompileManager.compileReport(direccion+reporte+".jrxml");
46             JasperExportManager.exportReportToPdfFile(JasperFillManager.fillReport(direccion+reporte+".jasper", modelo1, conn), "/tmp/passwords.pdf");
47             //JasperReport jasperReport = (JasperReport)JRLoader.loadObject ("/opt/tomcat/webapps/SIGDOC/WEB-INF/jsp/reportes/curriculum.jasper");
48             //byte[] fichero = JasperRunManager.runReportToPdf(jasperReport, modelo, conn);
49             conn.close();
50             File archivo = new File("/tmp/passwords.pdf");
51             InputStream in = new FileInputStream(archivo);
52             byte[] fichero = new byte[in.available()];
53             in.read(fichero);
54             response.setContentType("application/pdf");
55             response.setHeader("Content-disposition", "inline; filename=passwords.pdf");
56             response.setHeader("Cache-Control", "max-age=30");
57             response.setHeader("Pragma", "No-cache");
58             response.setDateHeader("Expires", 0);
59             response.setContentLength(fichero.length);
60             ServletOutputStream out = response.getOutputStream();
61             out.write(fichero, 0, fichero.length);
62             out.flush();
63             out.close();
64             modelo.put("mensaje", "Reporte creado correctamente");
65             modelo.put("tipo", "reporte");
66         }
67         catch (Exception e){
68             modelo.put("mensaje", e.getMessage());
69             modelo.put("tipo", "reporte");
70             e.printStackTrace();
71         }
72         return new ModelAndView("Aviso", modelo);
73     }
74 }

```

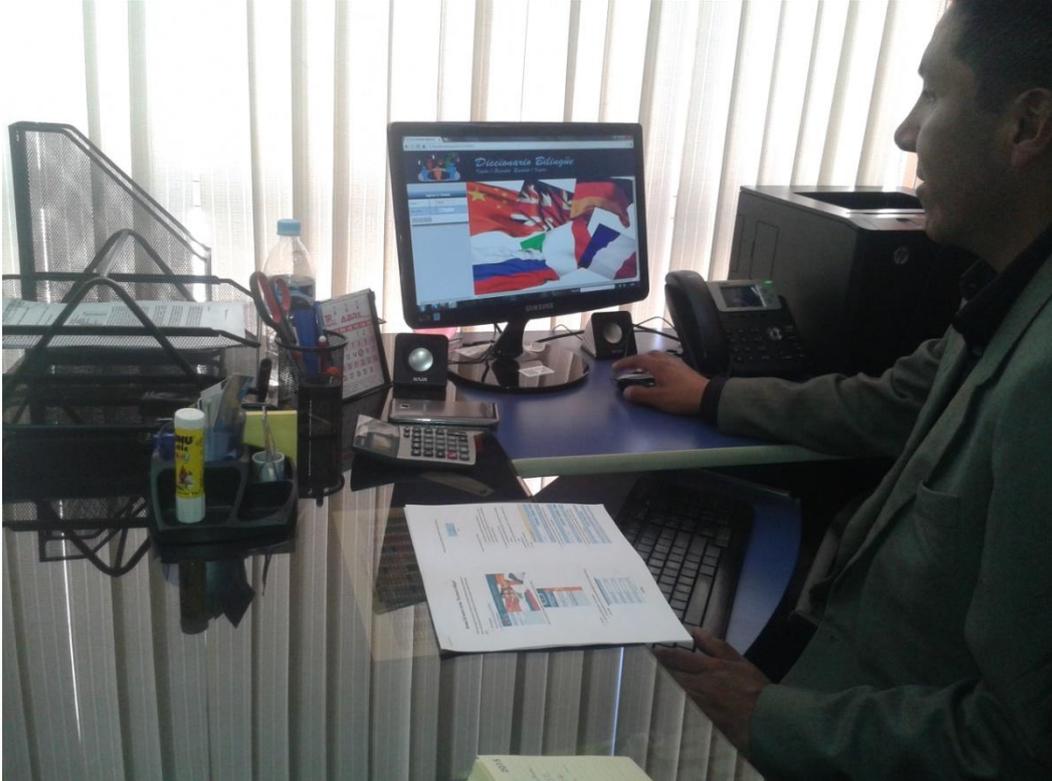
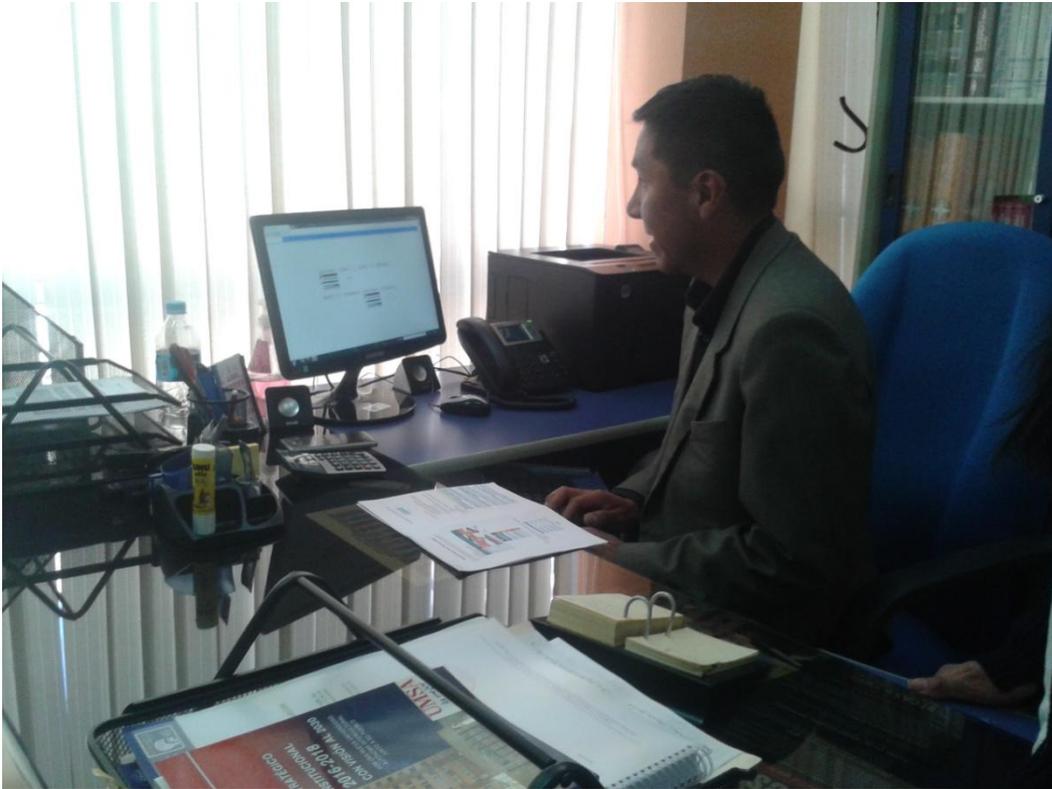
Ejemplo de archivo JSP (vista)

```
1 <%@ include file="../superior.jsp" %>
2
3 <jsp:useBean id="now" class="java.util.Date"/>
4 <body onload="inicio(document.forma.apodo<fmt:formatDate value="{now}" pattern="yyyyMMddhhmmss" />)" bgcolor="#dae3ed" >
5
6 <form name='forma' action='<c:url value="/Conectar.do"/>' method='post'>
7   <input type="hidden" name="hora" value='<fmt:formatDate value="{now}" pattern="yyyyMMddhhmmss" />' />
8   <center>
9     <br>
10    <br>
11    <div class="palabras">
12      <table width="158" height="110" cellspacing="0">
13        <tr>
14          <td colspan="3" align="center">Ingresar al Sistema</td>
15        </tr>
16        <tr>
17          <td align="right">Usuario</td>
18          <td>::</td>
19          <td>
20            <input type="text" name='apodo' size="10" onblur='validar(this, "A9")' />
21          </td>
22        </tr>
23        <tr>
24          <td align="right">Clave (PIN)</td>
25          <td>::</td>
26          <td>
27            <input type="password" name='clave' size="10" />
28          </td>
29        </tr>
30        <tr>
31          <td colspan="3" align="center">
32            <input class="ingreso" type="submit" value="Iniciar Sesi&oacute;n;">
33          </td>
34        </tr>
35      </table>
36    </div>
37    <br>
38    <font color="red"><c:out value="{mensaje}" /></font>
39  </center>
40 </form>
41
42 <br>
43
44 <%@ include file="../inferior.jsp" %>
```

ANNEX 5

STAFF TRAINING

Once we upload the final dictionary software, we deliver the user guide to the Head of CETI, then we trained him in the management of this software, so, he agreed with the functions and the easiness of operation. These are the pictures of that day:



ANNEX 6

**CERTIFICATES THAT
SUPPORT THIS REPORT**