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The Importance of English for Science Stream Students Case of The University of Tlemcen

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Dedication

To My Parents,

*Strong and gentle souls who taught me how to trust in Allah,
believe in myself, and that so much could be done with little,
whose affection, love, encouragement and prayers of day
and night that made me
able to get such success and honour.*

To both of my brother and sister Mohammed and Amina .

To My dear family members

*To my friends Noredine, Samad, Nadir, Ahmed, Nabil, Maria,
Nasro, and Aymen.*

To all my teachers.

And to my faithful Best friend Sonia.

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Abstract

This research aims at tracking certain issues related to the status of English among a group from science university students of Tlemcen. Its main purpose is to find out the value and importance of English as realized by science university students in two higher institutions in Tlemcen. The institutions visited were the Faculty of Biology and Geology and the faculty of Technology at Tlemcen University. To reach this end, a research work was conducted by a questionnaire that was used to collect data from a sample of 30 students, who were asked to view their opinion about the value they attach to English and its use in daily lives. The data collected were analyzed both qualitatively and quantitatively. The findings revealed that there is a significant awareness toward the importance of English for them as science and technology students, thus, this awareness is not accompanied by any measures to develop their mastery of it. Furthermore, the other finding of this research was that English was found to be slowly occupying areas of use usually occupied by French despite the fact that French was still their dominant language in research activity and entrainment. This work provides evidence that the importance of English is very much recognized by the majority of the sample examined, which made the prospect of adopting it as the language of instruction in scientific disciplines favored.

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List of Acronyms

BC: The British Council.

EFL: English as a Foreign Language.

ESL: English as a Second Language.

ESP: English for Specific Purposes.

L1: First Language.

L2: Second Language.

USSR: Union of Soviet Socialist Republics.

UK: United Kingdom

TESOL: Teaching English for Speakers of other Languages

TOFEL: Test of English as a Foreign Language

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General Introduction

General Introduction

The purpose of this work is to provide the background related to the value of English as the world language and in the particular case of the University of Tlemcen.

Since English is no doubt the most important language in the world today, then it is of interest to researchers to explore how it is seen by people all over the world. Research on English and how it is perceived can be tackled from many angles. This research will focus on how English is considered by science students at Tlemcen University. Reasons behind choosing this topic are mainly linked to the functions that English fulfils in the Algerian society and the complexity that it adds to the linguistic situation in Algeria in addition to its importance for science students. Whether the decision to teach English as a compulsory subject in institutions is viewed as positive or negative will be dealt with on the basis of various interpretative frames such as perceptions of agendas underlying the policies or the felt needs for it. As such, discussion of the research results will attempt to cover the benefits that English may render.

In fact, English is generally considered by policy makers in Algeria advantageous for fulfilling an important role in creating and sustaining links with the world in terms of knowledge and transfer of technology. Therefore, it will be of interest to explore the views of science students and to find out how they perceive English.

By contrast, English can be also seen as a new vehicle of colonialism (Phillipson, 1992) or as a threat to native languages; this may well be a view held by science students covered in this case study.

The aim of such investigation is to track the value attached to English and the extent to which it is perceived crucial in Tlemcenian science students' studies and future careers. It is anticipated that Tlemcenian university science students are aware of the value of English despite the fact that they are not taking the

«right» measure or following the effective strategies to master it. Concerning the use of English by Tlemcenian university science students, there is observable evidence of heavy domination of French over English and to some extent over Arabic in the use of electronic devices and in communication with foreigners. However, English is more present in the lives of Tlemcenians and Algerians as a whole due to technology and media in English that is more and more available. These expectations are, in fact, connected to the linguistic situation in Tlemcen and this research is seeking to investigate such impressions and observations in the case of Tlemcenian university science students.

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1. Introduction

The aim of this chapter is to provide a review of the various themes related to the value of English in the world and in Tlemcen specifically. It is composed of a major section; which tracks the aspects of the emergence of English worldwide, and also deals with the explanations of this spread and tackles the perspectives to such emergence.

1.1. Aspects of English spread worldwide

This section is going to provide a historical overview that covers the major periods of the development of English to be the first language of world communication based on accounts provided by authors such as Graddol (1997) and Crystal (2003). Such a status is going to be the main concern of the second section that is entitled 'the status of English around the world'. The description of the emergence of English will follow the framework of the sociolinguistics of World Englishes provided by Braj Kachru (1985) and specifically his classification of English use around the world into three concentric circles.

1.1.1. The history of English

The period between the 11th and the mid 15th century witnessed in its beginning the Norman Conquest to England, which meant the period of confrontation between English and French. It was also a period of language contact, which resulted the borrowing of words from French especially reinforced with making French the official language in England (Graddol, 1997). Graddol (1997) suggests that during this period educated people in England had to learn three languages, which are Latin, French, and English. It could be remarked that during this period French and Latin were still dominant over English. Between mid 15th and mid 18th century, however, some revolutionary events concerning the emergence of English took place.

These events were marked by the use of English in trade, scientific writings as a result of the industrialization of Britain.

The movement of English beyond the borders of Britain; first to America as part of immigration to North America and second India as a result of British imperial expansion was also crucial in the emergence of English. Moreover, the increase in the importance of printing and the beginning of teaching English in Holland and France as a foreign language helped the process of English spread (ibid). It could be said that at this point of time English started the process of dissemination as a world language.

Other important events in the path of English happened in the period between mid 18th and mid 19th century. Graddol (1997) in his book *The future of English?* Stated among these events standardization of the language that was facilitated by the compilation and publication of dictionaries and the achievements resulting from the industrial revolution that transformed Britain into a technological and internationalized nation leading to the advent of the use of English in advertising, media, in telecommunication, and more and more in education. In addition to its use in the fields mentioned above, it became the language of world organizations and diplomacy (Crystal, 2003), which paved the way for another important phase in the process of the emergence of English (Graddol, 1997). It will soon replace French as the language of diplomacy and international communication (ibid, 1997). The second half of the 20th century brought more importance and spread to English as major radio channels and television, entertainment activities, and the internet adopted it (ibid, 1997).

Researchers, such as Crystal (2003) and Graddol (1997), provided the reasons for the spread of English in the 20th century and linked it mainly to the impact of the British Empire and the rising political power of the United States of America in the world after the Second World War. These issues are going to be discussed in the next section of this chapter when dealing with the explanations for the spread of English.

Examining the process of the development of English, it could be said that the value of English has witnessed a gradual rise in terms of importance in the world, which resulted in being the language of the 21st century.

1.1.2. The status of English around the world

In fact, until the 16th century English was not so much important in world communication (Crystal, 2003). Nowadays, English is said to be the *lingua franca* of the world. Wehmeier (2000) defines it as “a shared language of communication used by people whose main languages are different” This definition is applicable to the situation of English today that is the case of India and Kenya (Graddol, 1997).

Certain facts about the existence of English in the world could be helpful in understanding its status. Actually, Graddol (1997) indicates that English is spoken by 750 million as English as a Foreign Language (EFL) speakers, 375 million as Second Language (L2) speakers, and 375 million as First Language (L1) speakers. In addition to these speakers, major influential world organizations such as the United Nations, where it is among the six languages that are considered official, and the European Union are adopting English (ibid).

The existence and emergence of English in non-native English countries is an important feature of its worldwide spread and reflects, in the view of some (Crystal, 2003), the value attached to it and in the view of others (Phillipson, 1992; Kachru, 1985; Pennycook, 1994), the sign of imposition, domination and imperialism. David Crystal (2003) mentioned some statistics about the use of English in six east African states showing its deep infiltration into various domains. Table below shows that English is present in five East African countries (Kenya, Uganda, Zambia, Malawi, and Zimbabwe) in high court, parliament, civil service, education, media, business, signs, and has an official status in them.

This means that it is present in making laws, and what is called the fourth branch of the political system, which is media. Taking into consideration the variety of languages and ethnic minorities that exist in these countries, one could deduce that English has occupied domains of use otherwise impossible for the minority languages to occupy. This situation usually leads to greater value attached to the learning and mastery of English in these communities.

	Kenya	Tanzania	Uganda	Zambia	Malawi	Zimbabwe
Official status	Yes	No	Yes	Yes	Yes	Yes
High court	Yes	Yes	Yes	Yes	Yes	Yes
Parliament	Yes	No	Yes	Yes	Yes	Yes
Civil service	Yes	No	Yes	Yes	Yes	Yes
Secondary school	Yes	Yes	Yes	Yes	Yes	Yes
Primary school	Yes	No	Yes	Yes	Yes	Yes
Radio	Yes	No	Yes	Yes	Yes	Yes
Newspapers	Yes	Yes	Yes	Yes	Yes	Yes
Advertising	Yes	Yes	Yes	Yes	Yes	Yes
Road signs	Yes	No	Yes	Yes	Yes	Yes
Shop and vehicle signs	Yes	Yes	Yes	Yes	Yes	Yes
Business and correspondence	Yes	Yes	Yes	Yes	Yes	Yes

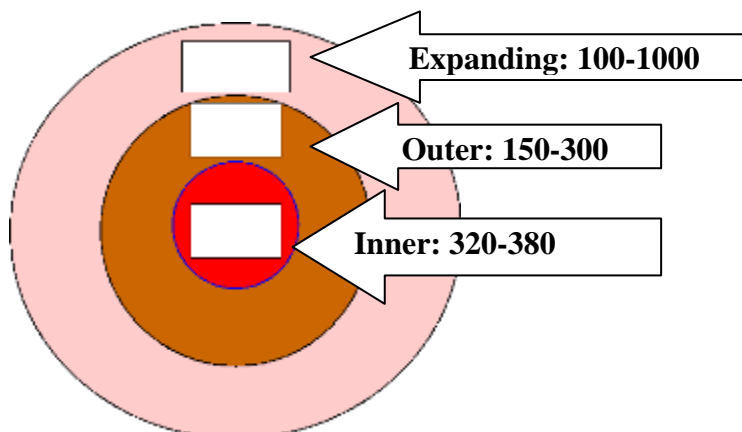
**Table 1.1. Some Domains of English Use in Six East African States
(Crystal, 2003, p.103)**

Yes = English used / No = English not used

Studying the spread of English has been the concern of many scholars who tried to investigate and describe this emergence of English all over the globe. For instance, Braj Kachru (1985) presents the model of the three concentric circles reviewed in the coming section

1.1.3. Kachru's three Concentric Circles

In his investigation of the spread of English, Braj Kachru (1985) presented a model that consists of three circles each one representing a particular group of countries on the basis of the situation and the use of English in them.



Pie Chart 1.1 : The three circles of English according to Kachru (1985) with estimates of speaker numbers in millions according to Crystal (1997) (Graddol, 1997, p. 10)

The Inner Circle (at the centre), represents the countries where English is the primary language and it includes the United Kingdom, the United States of America, Australia, Canada, and New Zealand. These countries are said to represent what is called native speakers of English. He also refers to them as “norm- providing” (Kachru, 1985) countries since the norms of English use are derived from them. The second circle, which is called the Outer Circle, represents countries where English is one of two or more official languages used in a variety of functions. Examples of such countries are mainly former colonies of Britain such as India, Malaysia, Pakistan, South Africa, Nigeria, and Ghana.

Kachru calls such countries “norm-developing” countries since they are developing their own varieties. Some examples for such category are Singaporean English and Indian English. The third circle, which is called the

Expanding Circle, includes countries where English is used as an international language like, China, Saudi Arabia, Taiwan and Zimbabwe.

These countries, according to Kachru, are “norm-dependent” (ibid) countries as they are not developing their own varieties of English. If we follow Kachru's classification, Algeria as a whole will fit into this last category since English is used within the Algerian context of English as a foreign language. From personal observations, Tlemcenian university students particularly , tend to view English as a necessary language to master nowadays.

1.2. Explanations of English spread worldwide

In order to investigate the variety of explanations suggested to explain the worldwide emergence of English consulting references from researchers like Crystal (2003), Phillipson (1992), and Graddol (1997) is needed. Exploring their findings, this section investigates the historical, political, economic, and practical reasons for the emergence of English around the world.

1.2.1. Historical reasons

One of the explanations suggested with regard to the emergence of English is the historical factor. In fact, researchers such as Crystal (2003) reported that English benefited from being the language of Britain, which was a huge empire during the 19th and 20th century especially. Consulting Phillipson (1992) in his provocative *Linguistic imperialism*, one could realize the difference between his perspective and that of Crystal (2003). Phillipson, for instance, gave importance to the persistent role of Britain in imposing English on its colonies. Therefore, it could be deduced that this imposition is in his account an important factor behind the influential presence of English in many countries today.

There is no coincidence in the fact that in former British colonies, like India and Egypt, English occupies an important status in education, media, governmental documents, and trade. Crystal (2003) proposed the same idea but

presenting the emergence of English as an ordinary and totally positive spread. As a conclusion, it could be said that making English the language of instruction in those countries is a colonial heritage. However, the historical reasons were not going to happen without political motives that are the concern of the upcoming section.

1.2.2. Political reasons

It is important to deal with political reasons behind the imposition of English because politics is an influencing player in the game of whose language dominates in non-native contexts. The political reasons could be classified as either internal or external.

The internal reasons come from the countries where English is adopted as a solution to the problems created by multilingualism (Crystal, 2003). In fact, certain countries choose to adopt English, as a solution to their multilingual situation such in the case of India and Kenya. Multilingualism could create difficulties with communication internationally for any country, as it could create a heated debate over what language to adopt as the official language. In some multilingual contexts as remarked by Phillipson (1992) “English has been described as an ethnically and ideologically unencumbered language”. This means that it can be perceived as a “neutral” and “unifying” language since it allows ethnic minorities in such countries to avoid conflicts about which group language to choose as the official language of the country. Communication between the different ethnic groups was carried through English instead of the less practical perhaps, variety of languages.

As far as neutrality is concerned, it should be stated that this apparent neutrality is misleading as it can be argued that English in the context of most of such countries is the language of elites, which means that at the end a language of a minority is dominating the majority of uneducated members of the language community (Pennycook, 1994).

The only difference is that this minority is privileged and perhaps supported by 'English powers' such in the case of the elite governing in Philippines in the 1980s described in Phillipson, 1992. Apart from the internal reasons there are some external ones suggested by Phillipson (1992).

The external reasons are those related to factors coming from outside the country which means the overt and covert pressure exercised by the inner circle on some countries in order to impose English as the language of the most important fields in the country and this is done mainly for political and ideological purposes. Such a claim could be illustrated with the attempts of the British government to alter the dominance of the USSR over Eastern Europe in 1990s by imposing English as the second language instead of Russian (Phillipson, 1992). However, other explanations for this shift from Russian to English could be thought of especially in connection to the fall of the USSR at that period and the loss of faith in the communist ideology. This could mean that the spread of English in Eastern Europe came from inside these countries not outside them.

External organized strategic imposition, as it is claimed by Phillipson (1992), is neither for the sake of the beauty of English nor for the sake of 'civilizing' people in those countries. In fact, English could serve as a facilitator of the emergence of free trade, which strengthens the imposition of globalization. As far the situation in Algeria, the context of this study, it should be noted that despite the diversity of the linguistic situation, it could not be said that it is a multilingual country in the same sense as in Kenya or India but there are the regional dialects constructing the Algerian linguistic variations of the same Arabic language with the presence of French in the background.

In the case of Tlemcen, the pressure of the inner circle is not persistent as Algeria is considered a francophone country for historical reasons, especially due to the fact of having been colonized by France not an English speaking country.

This is an important fact that is going to be put under study when analyzing some aspects of the relationship between English and French in Algeria.

1.2.3. Economic reasons

The main language of the United States of America, which is dominating and monitoring world economy, is English, which means that taking part in international business depends on knowledge of English (Phillipson, 1992). For this reason, a lot of money has been spent on learning this language. It seems from this perspective that the dominance of the US after the Second World War resulted in the dominance of English in the modern history. This saying could be illustrated by Graddol's claim that “the story of English in the 20th century has been closely linked to the rise of the US as a superpower that has spread the English language alongside its economic, technological and cultural influence” (Graddol, 1997, p. 8). Within the context of a globalised capitalist world economy, governments and individuals found no way but to learn, teach, and use English in order to live and to prosper. Therefore, the economic reasons are either internal or external.

The internal ones are those related to the attempt of the governments in the world to promote the mastery of English among its economy agents for the sake of integration in world economy. In the same vein, Phillipson (1992) illustrates this claim when he argues that “the discourse accompanying and legitimating the export of English to the rest of world has been so persuasive that English has been equated with progress and prosperity”.

The external ones are those related to the British and later on the American attempts to spread English in order to make English the official language of world economy for the sake of more economic, political, and ideological dominance.

At the level of economy, Algeria is very much connected to Europe and mainly France more than English speaking countries. Importation and

exportation could determine which language to promote which determines also the language to be favored by students. However, apart from the internal and external economic reasons, there exist some practical reasons, which strengthen the importance of the value of English and legitimate the claim that the world is increasingly depending on this language (Graddol, 1997).

1.2.4. Practical reason

The practical reasons are in relation with what English offers to its individual learners, which create the extrinsic motivation to learn it. Gardner (1985) differentiated between «extrinsic» and «intrinsic» motivation. He mentioned that extrinsic (or instrumental) motivation refers to the fact of learning a language for the sake of gaining a tangible reward. Therefore, it is linked to some external forces like learning English in order to succeed in education, avoiding a punishment, to pass the TOEFL, qualifying for a job, achieving a higher social status, getting a rise in salary, or studying in an English speaking country. This kind of motivation differs from intrinsic motivation as driving forces in learning. Intrinsic motivation refers to the forces that urge the learner to learn a particular language and that are coming from inside them. Instead of being related to material gains, they are related to the desire of the learner to learn a second or foreign language for the sake of being part of the speech community that speaks that language or out of fascination towards its culture (ibid).

The practical reasons are related to the presence of English everywhere and for this reason, it seems extremely important to master it. In fact, with English comes the promise to those who will master it to succeed in life, as it will allow them to gain access to knowledge in all domains especially in fields connected to science and technology. Table 2 below includes a list although not exhaustive of the fields where English is used.

1. Working language of international organizations and conferences
2. Scientific publications
3. International banking, economic affairs and trade
4. Advertising for global brands
5. Audio-visual cultural products (eg. film, TV, popular music)
6. International tourism
7. Tertiary education
8. International safety (e.g. `air_speak', `sea_speak')
9. International law
10. As a `relay language' in interpretation and translation
11. Technology transfer
12. Internet communication

Frame 1.1. Major International Domains of English (Graddol, 1997, p. 8)

The variety of domains listed in the table above illustrate the fact that in order to read a scientific article, to use technological products, to look for research information, to have access to studies about the world's phenomena, mastery of English is needed. It is especially required to communicate and participate in trade with Europe and the US, but also important even to enjoy popular music and movies produced predominantly in Hollywood in English of course.

It is also crucial for young people to participate in youth culture; to enjoy watching world television, to use computers and video games, and a huge variety of other activities for which English is required. In brief, English is a necessity for inclusion in any domain today. These facts concern any country in today's world including even former colonies of France such is the case of Algeria.

All the explanations mentioned within this section suggest the various reasons elucidating the spread of English around the world. Such a spread could not be understood as the exclusive result of one of the reasons because all of them complement each other to create the situation of this language today. This situation generated conflicting perspectives to the worldwide domination of English, which is going to be the concern of the next section of this chapter.

1.3. Perspectives to the spread of English

The aim behind dealing with the perspectives to the spread of English is to investigate what might be the causes of resisting the spread of English and the reasons for supporting it. For this reason, these views of 'resistance to English spread' and those 'supporters of English spread' will be discussed in light of ideas about the position of English in the future as forecasted by David Graddol (1997) in his book *The future of English?*, which can help in our attempt to understand the perception of Tlemcenian university science students later on in the discussion of the findings.

1.3.1. Resistance to English spread

Throughout history, some countries took decisions to block the spread of English (Crystal, 2003). The former USSR and France are two examples of countries where such efforts were deployed.

In fact, the soviets saw English as a dangerous threat to communism. The reason behind this position was that the spread of English meant the spread of thoughts. What the soviets seemed to be afraid of, actually, is the spread of capitalism under the cover of the spread of English (Crystal, 2003). Certainly the USSR had no problem with disseminating the Russian language and communism in Eastern Europe. At the same time it denounces the emergence of English and capitalism. The soviets depicted English as the language of world capitalism and world domination (Ibid).

Another political argument comes this time from France, which was threatened by the spread of English. Before the rise of English, French was dominating world communication as the *lingua franca* but with the rise of English, it has lost this position mainly in the 20th century where “the international importance of other European languages, especially French, has declined” (Graddol, 1997, p. 8). The French for a long time, took practical decisions to deal with this situation. They established the *Haut Comité pour la Défense et l'expansion de la Langue Française* in 1966 and strengthened their links with francophone countries (Phillipson, 1992).

The worldwide dominance of English was also criticized by scholars such as Wardaugh (1987) for being the cause of the loss of local languages. It has been argued that when one language expands it restricts the dominance of another. Such a situation happens when the dominant language earns more domains of use while the dominated one experiences domain loss. However, other scholars continued to claim that there is no correlation between the spread of a language and the loss of local languages because the emerging language serves only as an additional one and therefore its effect is harmless. This last claim could be refuted by the question that Pennycook (1994) raises concerning the resulting extermination of minor languages.

In parallel with the critical views of the spread of English, we find views of those who claim that it is not a threatening language and that in the other hand it opens many doors for knowledge, creativity, and economic development. This position is going to be the concern of the second sub-section.

1.3.2. Supporters of English spread

Proponents of English worldwide spread could be those actively engaged in its use around the globe. The United States with its domination presses heavily in favor of English especially in Asia (Phillipson, 1992). The argument is that the introduction of English opens the door for non-English speaking countries to

receive American and British support and aids. Even though there is no evidence of who these people are and/or what they do exactly.

The British Council (BC) and TESOL international could also be considered as agencies in support of English spread. The BC is a public organization that was founded in 1934 in order to spread the English language, literature, and culture in the world for the sake of serving the interests of Britain (Phillipson, 1992). Certainly, these goals are slightly different from those recognized officially by the organization or said differently in order to be easy to swallow. On its official website, the BC claims, however, that its goals are related to establishing cooperation “increasing exchange and mutual understanding” (The British Council Annual Report 2006-2007) between the UK and other countries.

Support to English spread comes also from English as a Second Language (ESL) and an increasing number of EFL countries, which are promoting the use of English in various domains for the reasons mentioned in the previous section of this paper (historical, political, economic, and practical reasons). Therefore, in the context of all of this support for English, one might wonder about the future of this language. Such a question is going to be dealt with in the upcoming subsection.

1.3.3. Predictions about English in the future

David Graddol (1997) to predict the situation of English in the future. In his book he announced:

“There is no reason to believe that any other language will appear within the next 50 years to replace English as the global lingua franca. The position of English has been raised from a particular history which no other language can in the changed world of the 21st century repeat.” (p. 58)

Perhaps what might assist the expected domination is that English could become recognized as the world language and would no longer be linked to colonialism. Therefore, the sustaining of its domination might not be because of what it refers to (i.e. colonialism) but what it gives (i.e. prosperity). In fact, its increasing presence in EFL countries especially in education could decide much of its future (ibid). The prospect of this presence in a number of EFL countries like Algeria is going to be measured when analyzing the questionnaire.

Predicting the scenarios that might happen in Asia as far as English is concerned, Graddol (1997) suggests three possibilities. The first is that English will remain the language of communication between Asian countries. The second is that Mandarin could become more important. The third possibility is that there will be no dominant language, which means that people will use many regional languages for communication. Viewing to the rising importance of the Asian economies and the possibility of adopting English in all sectors for them, one could wonder about the value that today's university science students assign to mastering this language in Tlemcen as an example of EFL countries. However, this claim could be discussed by the fact that Algeria is connected to francophone countries more than Anglophone ones especially in terms of economy.

Yet, it is important to mention that globalization does not separate between countries based on this distinction. What is meant by this is that the rising importance of English together with the rising importance of economic world dependence on it leads to questioning the value young university students in the economic, technological, and scientific sections attribute to English. Such an issue is going to be discussed. Whatever be the results, they are certainly influenced by the measures that have been taken to promote English throughout history.

Conclusion

One of the aspects of the spread of English worldwide is the emergence of its use vertically (i.e. its infiltration into major domains of life) and horizontally (i.e. its propagation around the world). The appearance of the division of ESL and EFL countries is one of the aspects of the horizontal spread of English. Putting into consideration the rising importance of English as a global language, it seems crucial to investigate the value attached to it by young university students in the sciences.

The variation of the reasons explaining the worldwide emergence of English strengthens this claim as within some of those reasons one can realize the dependence of the coming decades on English in the world despite the fact that according to some perspectives English is the sign of colonialism. Such a position is expected to be of minor importance in Tlemcen and especially for Tlemcenian university science students. The perception of the value of English among those students can be colored by the various attempts to promote it in education.

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2.1. Introduction

This chapter aims at providing the context of the research in terms of components and way of data collection and analysis. For this reason, it is composed of many sections. The first sub-section deals with the research design that is the reasons behind choosing the survey method. The second sub-section contains the description of the participants before moving to deal with the questionnaire itself in terms of its themes in the third sub-section entitled 'the data collection instrument'. The procedures, the timing, and the difficulties witnessed when collecting information are to be dealt with in the fourth sub-section under the subtitle 'data collection'. Finally, the way the data was handled will be the focus of the fifth sub-section entitled 'data handling'.

2.2. Research design

The aim of this paper is primarily to investigate the value of English as perceived by Tlemcenian university science students. For this reason, the questionnaire is helpful in gathering the needed information as it allows eliciting personal view directly from the population.

2.3. The participants

The target population of this paper is thirty university science students in Tlemcen from the second Year in Chetouane University. The Faculty is the one of Science Streams and more specifically Technology stream. Therefore, English is taught there one hour and a half per week. The decision of choosing science students was taken because of the important link between them, English, and the future. Their perception could be valuable in recognizing attitudes towards English today (2016) and according to whom are assumed to be the scientists of the future in Algeria in the direction of predicting their inclusion to a world dominated by English.

2.4. Data Collection Instrument

The questionnaire was divided into six sections. The first one contains the background information about the students, which means their age, gender, department, level, and specialization. The second section aimed at collecting data about the proficiency of the students as they claimed it. For instance, respondents were asked to indicate their level in the last English exam they sat for by giving them three alternatives (0-7, 8-12, and 13-up) in order to classify them into under average, intermediate, and good learners of English. The second and the third questions of this section aimed at exploring students' communicative ability. Therefore, the second question of this section explored their ability to understand people speaking English in an authentic English movie or TV program by giving them four alternatives. The first alternative "I understand every word they say" is taken to reflect ability as very competent users of English. The second alternative provided in "I miss few words at times" was put to classify respondents intermediate in understanding spoken English. The alternative "I have difficulties with understanding" was put to investigate the number of students who assess their ability as weak or low. The fourth alternative that is "I understand better British films than American films" aimed at recognizing the closest variety to students' abilities. In the third question of this section, the concern was students' ability to produce exclusively English utterances when in real life and the possible alternatives they resort to when they cannot communicate their ideas.

Thus, students had to choose between three alternatives, which are "perfectly", "sometimes I resort to gestures", and "I resort to French if I can't express myself". The first alternative concerns competent users of English at the level of verbal production while the second and third alternatives aimed at examining the possible solutions students resort to when failing in finding English words. In an attempt to witness the relationship between English and French in terms of use, students were asked, in question four, to identify the language of their favorite movies and, in question five, of the interface when using internet.

In section three, the position of English in students' plans was put under study. They were asked to identify whether they plan to study in an English speaking country or just they need English to have access to more sites on the internet for their studies. The emphasis of this question is mainly the second alternative which is planning to study in an English speaking country.

Section four and five aimed at questioning the attitudes of students concerning English. The first question of section four aimed at recognizing the percentage of students who studied English out of public institutions and the rate of those who did not in addition to the reasons behind each choice. The reasons were reported using open-ended questions as an attempt to elicit direct information from the participants. The second question of the fourth section tackled the domains of the importance of English according to the students. They were offered two intrinsic motivators (“to discover other cultures of the world” and “to find out about any topic of the world”) and two extrinsic motivators (“to succeed in education” and “to succeed in professional life”) in order to witness the type of motivation that drives the students. The third question dealt with the possible obstacles students' face with learning English. They were asked to choose the most inhibiting obstacle. Such a question aimed at recognizing students' difficulties concerning mastering English. The first alternative provided was the “absence of extracurricular activities” and it aimed at measuring the number of students who think they could promote their level from activities like English clubs.

The rationale behind suggesting the alternative of “dominance of French language in Algeria” is investigating the degree to which the availability of this language is an obstacle facing learning English. The alternative of whether students feel they have no time to study English or not was put to explore the degree to which students claimed that crowded timetables is an obstacle.

The alternative that the time allocated to study English is not encouraging was put on the basis of personal observations of complaints of science students who claimed that they could not learn English because the time allocated for it is too early or too late. The last alternative in this question is that “the program is not interesting” and it is put because students might feel bored and frustrated because of particular kind of programs that, for example, enormously lay on the structure.

In the fifth section, the prospect of adopting English and Arabic and the reasons behind the choices were tackled. In the first question, which concerned the possibility of adopting English as the language of instruction in universities teaching science and technology, students were given four alternatives which are “I agree”, “I disagree”, “I totally disagree” (which aim at measuring those who extremely refuse the idea), and those who say they are “indifferent”. The degree of acceptance or refusal is measured as students might have some conditions before taking such a decision. In the same question, they were asked to provide the reasons for their choices. They were not given alternatives as the question was given in an open-ended manner to elicit direct and real data. The same structure used with the first question of section five was used with the second question in the same section. Students were asked to state their perception of adopting Arabic as the language of instruction in scientific sections at universities and to provide the reasons (in an open-ended manner) for their choices.

The solutions students propose were measured to promote the learning of English among science students which are investigated in the third question of this section. Students had to choose what they think the most efficient decision from five alternatives, which are “oblige teachers to use tape recorders and multimedia in teaching English”, “increase the coefficient of English”, “establish English clubs in every university”, “increase the hours devoted to study English”, and “teach English literature and civilization”.

Suggesting using multimedia and establishing clubs as alternatives to the question aims at exploring the rate of students who support creative methods in teaching as a solution to promote learning English. Increasing the coefficient aims at investigating instrumentally motivated students while increasing the number of the hours aims at measuring whether students do need more exposure to English or not.

The sixth section of the questionnaire, which investigated the use of English among university science students, is composed of three questions. The first question reports students' use of English when sending e-mails where students were given three alternatives, which are “never”, “few times”, and “many times”. The second question examined the situations where students were obliged to use English and they were given four alternatives which are “never”, “when chatting”, “when using English documents”, and “with foreigners”. The use of English was measured also in terms of the language set in students' mobile phones. They were given four alternatives, which are “French”, “English”, “Arabic”, and “other”.

In brief, the themes included in the questionnaire aimed at collecting data mainly about three issues, which are students' proficiency in, perception of, and use of English in education and daily life.

2.5. Data collection

After preparing the final draft of the questionnaire, 30 copies were produced and distributed by the researcher from the English department including the help of a science student. In order to make sure the participants understand the questions, the data collector paraphrased or translated the questions into Algerian Arabic sometimes. April 17th 2016, the ST students were investigated. Actually, the work went smoothly and there were no difficulties apart from being obliged to enter the institution secretly in order to investigate the students, as the researcher had no official paper allowing them to enter and investigate in the institution.

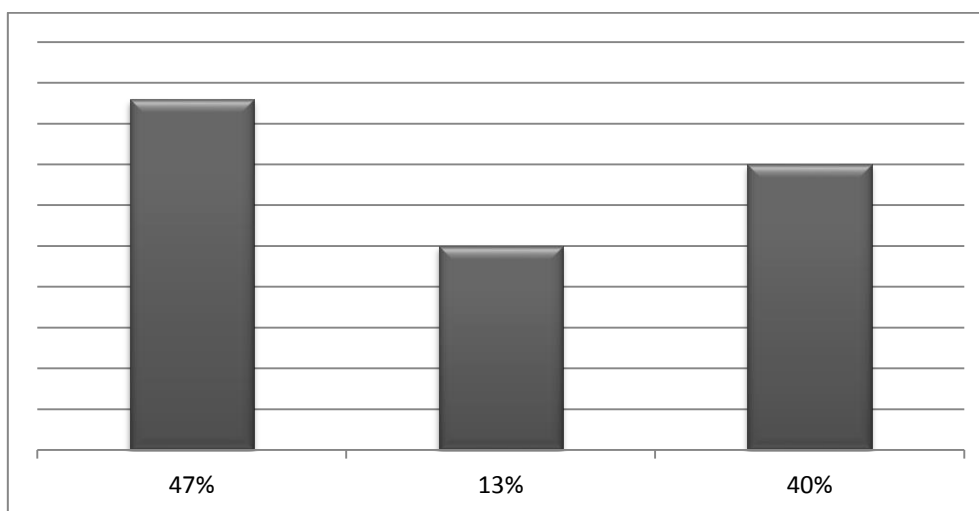
When some officials in the visited institution inhibited the researcher from entering, students, who were very cooperative, were met in front of their faculties.

2.6. Data handling

Because of lack of enough knowledge concerning statistics packages, handling data was done manually by the researcher. Questionnaires concerning the institution were separated and for each question, the answers were counted and checked twice and more if the numbers exceeded or were less than the total number of investigated students in the institution. The answers collected from all students were transformed into five sets of tables each set representing the data collected from the institution and each table contained the answers to a particular question. Then, the five sets of tables were gathered into one set of tables containing the answers collected from the institution put together. The tables of the last set representing the total answers collected from students were transformed into graphs using Microsoft Excel. In the following chapter, the results will be discussed.

2.7. Science students' claimed proficiency in English

The analysis of the questionnaire data indicates that concerning the level of science students in English, which is retrieved from their claimed marks, an important percentage of them could be classified as 'Good' since 46.66% of the investigated students said that they obtained more than thirteen in their last exam. In fact, only 13.33% reported that they obtained less than seven out of twenty in their last exam as Figure 2 below indicates. Students who obtained a mark between 8 and 12 represent 40% of the total students.



Bar-Graph 2.1 : Categories of Science Students' Reported Proficiency in English

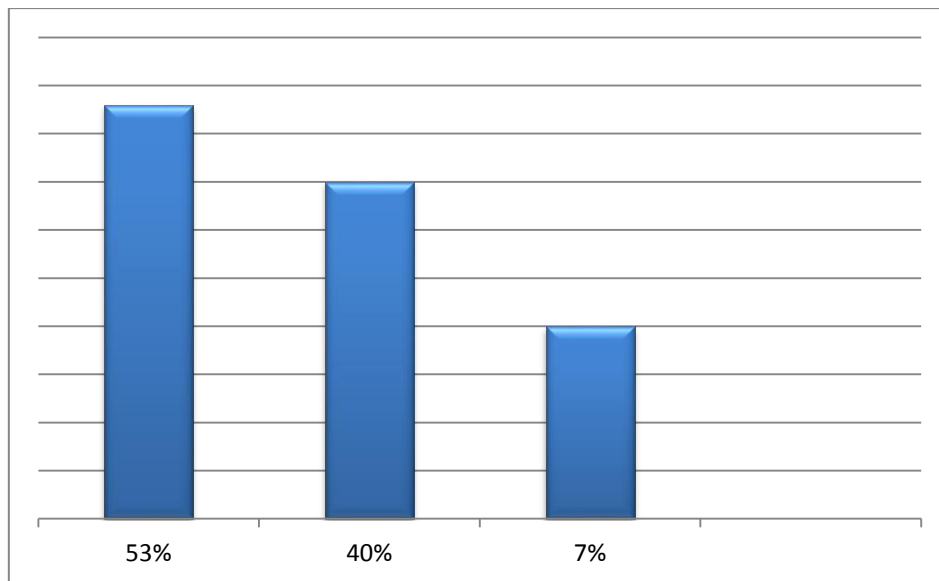
47%: Good level obtaining from 13 to more

40%: Average level obtaining between 8 to 12

13%: Inferior level obtaining less than 7

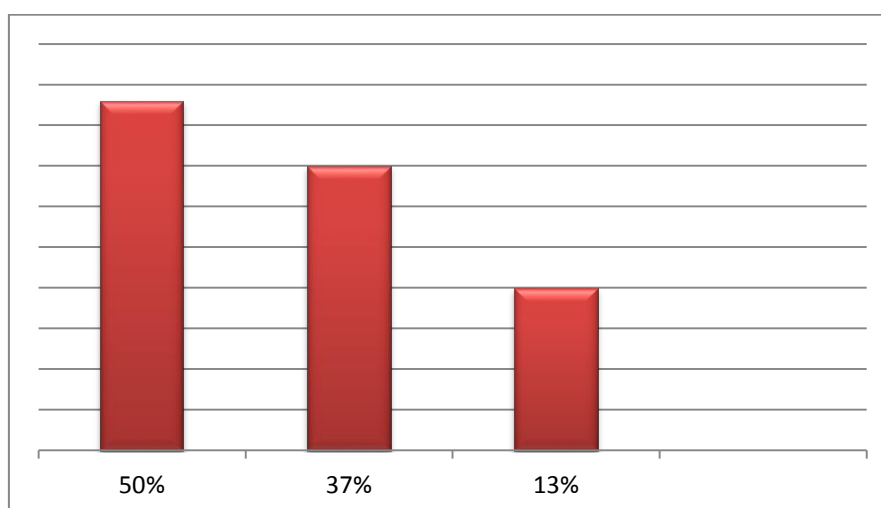
As a response to the question proposed in the questionnaire that is “could you understand people speaking English in life or in an authentic English movie or TV program”, which is summarized in figure 3 below, 53.33% of the students claimed they “miss few words at times” and 40% claimed they “have difficulties

with understanding”. 6.66% is the percentage assigned respectively for “I can communicate perfectly”.



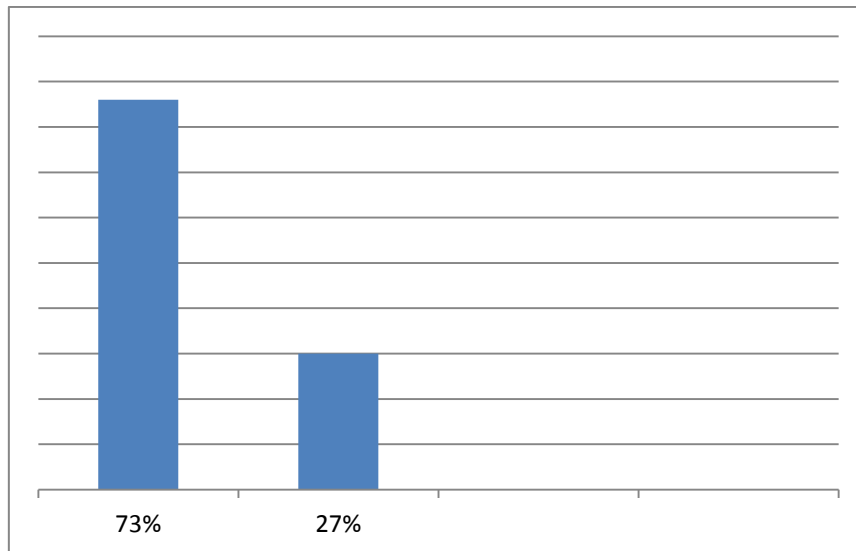
Bar-Graph 2.2 : Science Students' Claimed Proficiency in English

The ability of students to communicate with someone using only English which is reported in Figure 4 indicates that only 13.33% of them report that they can “communicate perfectly” in comparison to 50% who “resort to French if they can't express themselves”. Those who “sometimes resort to gestures” represent 36.66% of the investigated students.



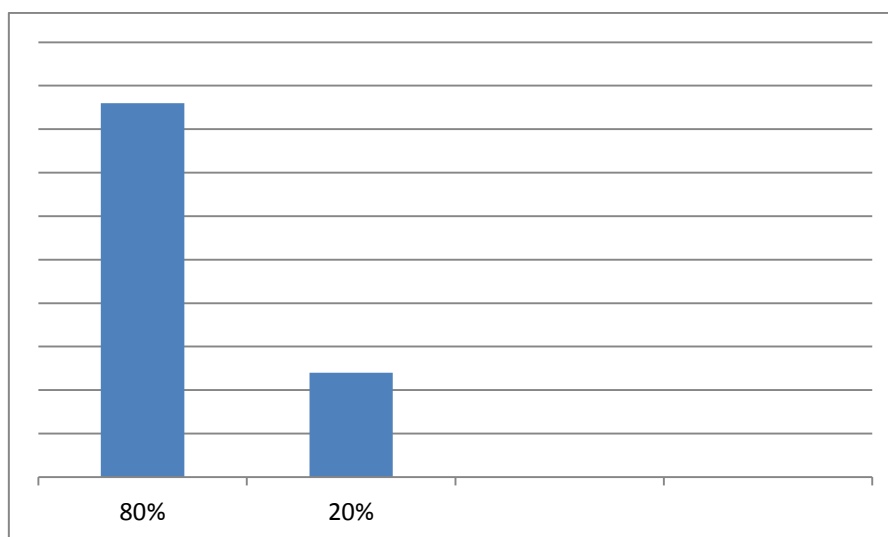
Bar-Graph 2.3 : Ability to communicate only in English and alternative solutions

The results of the investigation of students' "choice of language in favorite movies", as it is reported in Figure 5 below, show that 73.33% of them prefer the French version compared to the 26.66% favoring the English version.



Bar-Graph 2.4 : Choice of Language in Favorite Films

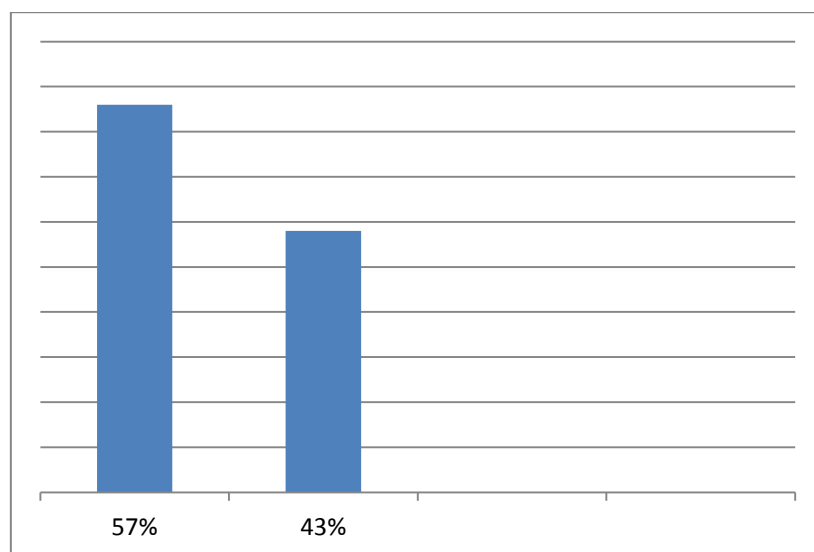
Concerning students' use of French or English to look up information on the internet or to download music, the results show that 80% of the investigated students use French as language of the interface in comparison to only 20% use English.



Bar-Graph 2.5 : The Language of the Computer Interface

2.8. English in students' plans

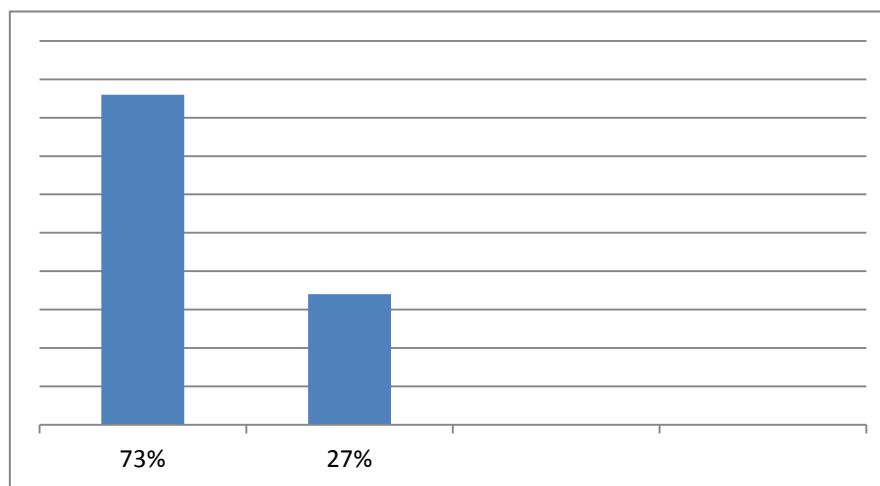
The results summarized in Figure 7 below concerning the presence of English in students future plans show 43.33% of the students intend to study in an English speaking country and that those who value its importance in consulting information on the internet represent 56.66%.



Bar-Graph 2.6 : English in Science Students' Plans

2.9. Students' experience with English: Past experience, motivators, and obstacles

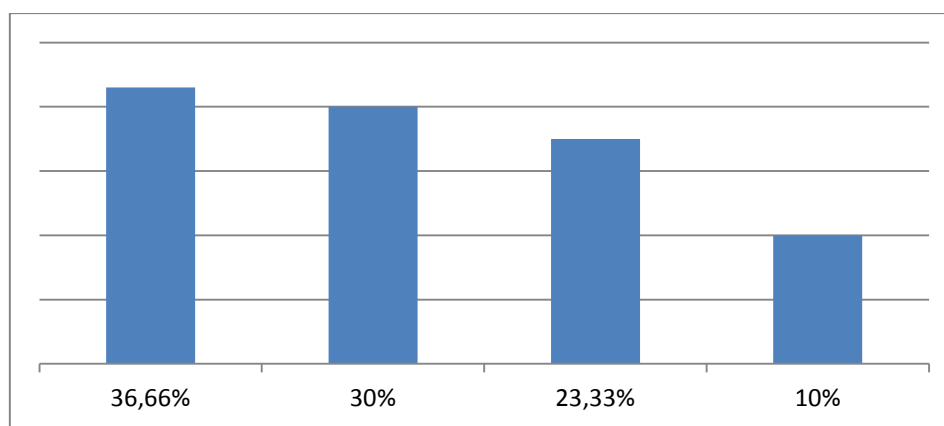
2.9.1. Students' past experience with learning English



Bar-Graph 2.7 : Studying English out of Public Institutions

As a response to a question proposed in the questionnaire concerning whether students have studied English out of public institutions or not, Figure 8 below indicates that only 26.66% of them responded by “Yes” compared to the 73.33% who responded by “No”.

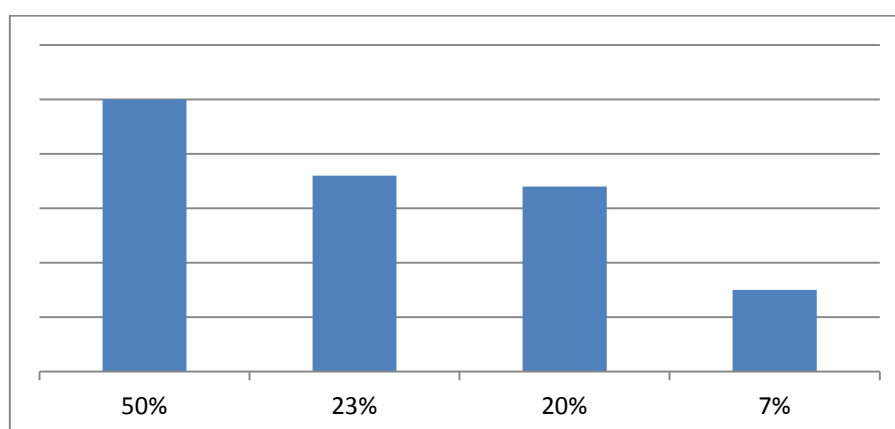
When asked to provide the reasons for not studying English out of public institutions, students stated four reasons. In fact, Figure 9 below indicates that being “not motivated” was mentioned 11 times (out of 30) followed by “time restrictions”, which was mentioned 9 times. Lack of “money” was mentioned 7 times and those who believed that there was “no need to” study it stated this fact 3 times.



Bar-Graph 2.8 : Reasons for not Studying English out of Public Institutions

2.9.2. Motivation behind studying English

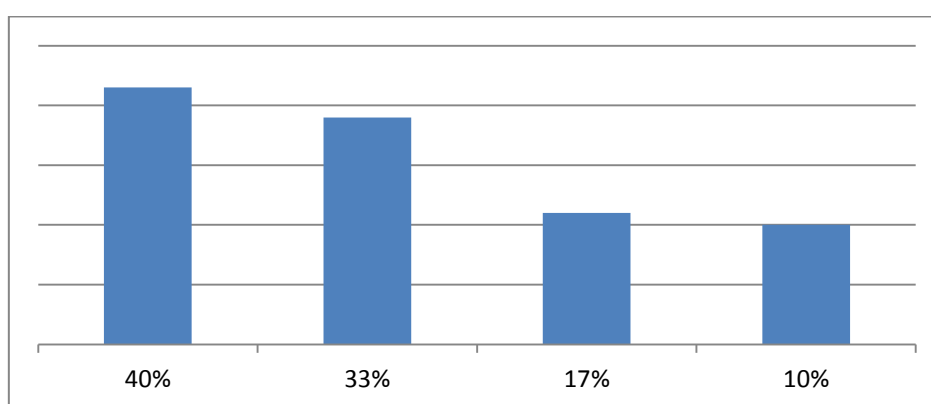
In order to know the motivators behind studying English for the investigated students, a question that suggested four alternatives was put forth for the participants. The results reflected that half of the students consider success in professional life as the major reason for such a decision (50%). The rest of the students indicated that it is important “to find out about any topic of the world” (23.33%), “to discover other cultures of the world” (20%), and “to succeed in education” (6.66%).



Bar-Graph 2.9 : Students' Motivators behind Studying English

2.9.3. Obstacles to learning English

The availability of French is, according to 40% of the students the most inhibiting obstacle towards learning English. “Time constraints” and “revising courses that are more important” was mentioned by 33.33% of the students investigated. “Absence of extracurricular activities” and “the program of teaching English is not interesting” were mentioned by 16.66% of the students respectively in comparison to 10% who stated that the obstacle preventing them from learning English is that “the scheduled time of English is not encouraging.”

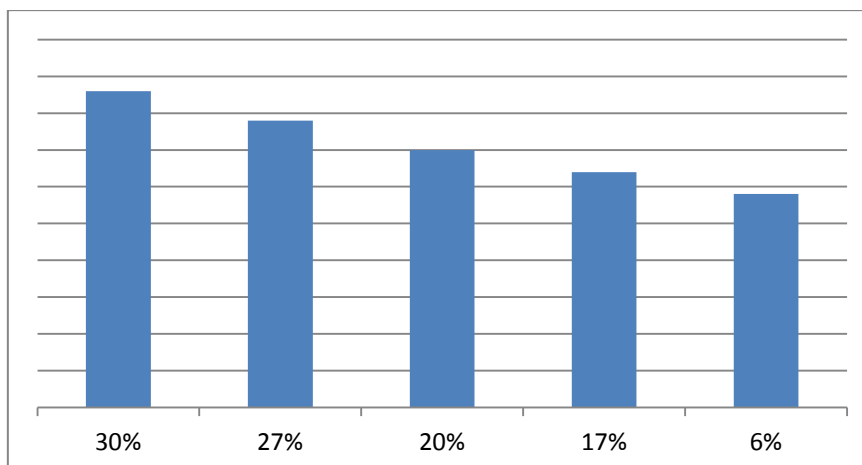


Bar-Graph 2.10 : Obstacles Preventing Students from Learning English

2.10. Prospects of adopting English and Arabic at science higher education university institutions

2.10.1. Prospects of adopting English in education

As a response to the closed-ended question “if you were in charge of education in Tlemcen, would you teach science and technology in English?” , 30% of the investigated participants claimed that they “agree” in comparison to 26.66% who did not. Actually, 20% percent of those who refuse such a decision “disagree” and 16.66% of them hold a strong view ticking “totally disagree”. Indifferent students did not exceed 6.66% as Figure 12 below indicates.



Bar-Graph 2.11 : The Prospects of Adopting English

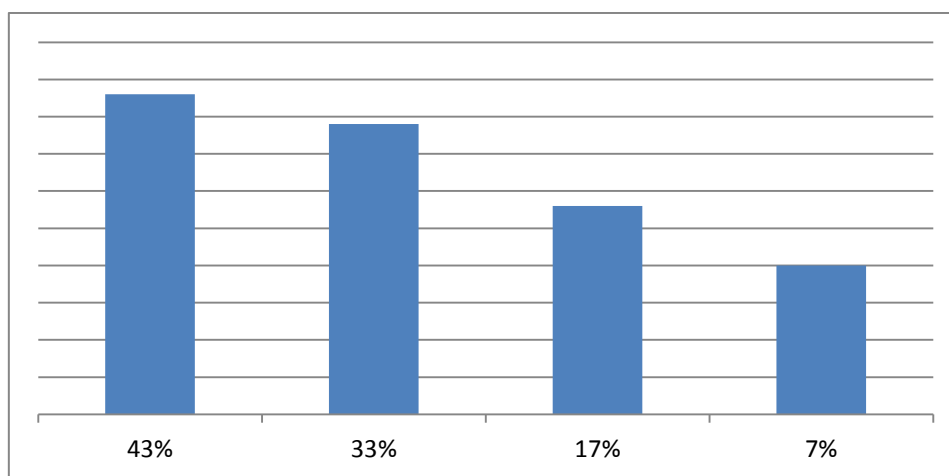
The reasons behind such rates were measured when students were asked to illustrate their choices, as it is synthesized in Table 3 below. In fact, those who agreed with the idea of adopting English claimed that “English is important” (10). Students who totally disagreed with the idea reported either that it is “a problem of organization as students are used to French” (6) or provided no reason for such a choice (4). Mere disagreement concerns 8 who claimed that there is an “absence of command in English”. It is notable that 2 of the students claimed they are indifferent to such issue.

Responses	Totally disagree		Disagree	Agree	Indifferent
Reasons	A problem of organisation	No reason	English deficiency	English is important	Do not care
Number of arguments	6	4	8	10	2
Total	30				

Table 2.3: Reasons Concerning Adopting English

2.10.2. Prospects of adopting Arabic

Responding to the closed-ended question “if you were in charge of education in Tlemcen, would you teach science and technology in Arabic?” 43.33% of the students rejected the idea; among those, 33.33% selected “totally disagree” and 16.66% selected “disagree”. Concerning this question, there were no “indifferent” students (0%) and those who selected “agree” represented only 6.66% of the participants as it is illustrated in Figure 13 below.



Bar Graph 2.12 : Prospects of Adopting Arabic

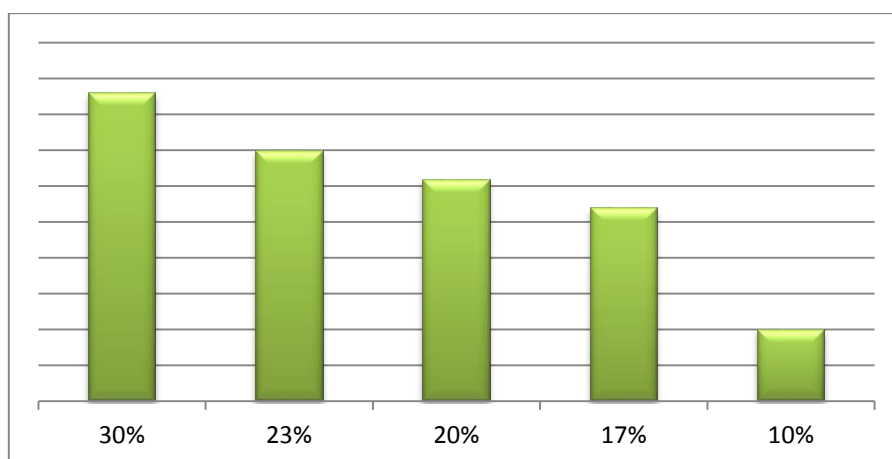
When students were asked to provide the reasons for their choices, 50% of the total number of the arguments (30) concerned the idea that “Arabic is not a language of science”, and 20% that “Arabic is of no help when communicating internationally.” 13% is the rate of the arguments that such an act will create “a problem of organization, as students are used to French.” The same figure (13%) is of “Arabic is our mother tongue,” which those who accepted the idea said. 3.33% of the arguments provided concerned those who refuse the adoption of Arabic for “no reason” and the same figure goes for who refuse it because it “is boring”.

Response s	Indifferenc e	Refusal				Acceptanc e
Reasons	No reason	Arabi c is borin g	Arabic is not a languag e of science	A problem of organisatio n	Arabic is not an internation al language	Arabic is our mother tongue
Number of argument s	1	1	11	5	7	5
Total argument s	30					

Table2.4: Students' Views about the Prospect of Teaching Science in Arabic

2.10.3. Measures to promote learning English

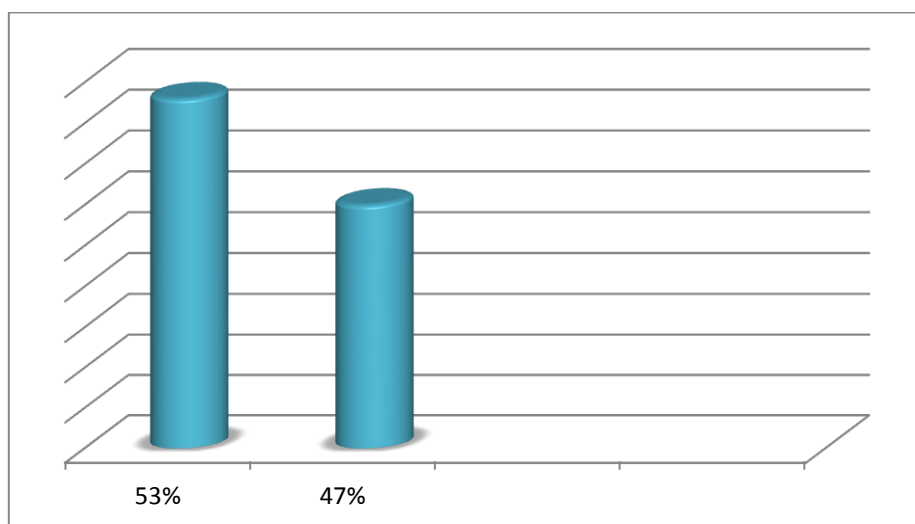
Responding to the question of “if you were in charge of education in Tlemcen, what would you do to promote English language teaching at university?” 30% of the students proposed that “increasing the coefficient of English” is the best solution in comparison to 23.33% who chose the alternative of “obliging teachers to use tape recorders and multimedia in teaching English”. The rest of the students (20%) chose “establishing English clubs in every university” or “increase the time allocated for studying English” (16.66%), and only 10% claimed that they prefer “teaching English literature and civilization” as an efficient measure to promote the learning of English among students in the sciences.



Bar-Graph 2.13 : Students' Preferred Solutions to Promote Learning English at Science Institutions

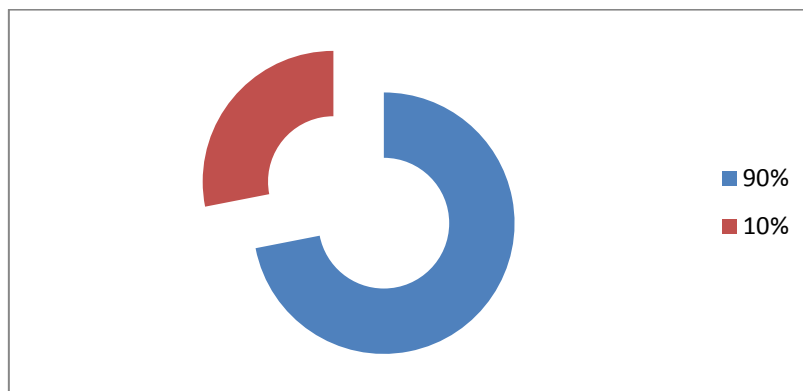
2.11. The use of English among students

Three alternatives were given to students as a possible response to the question “have you ever sent e-mails written only in English?” 53.33% of the students claimed that they have “never” sent e-mails written in English in comparison to 46.66% who claimed that they sent e-mails written in English either “few times” (34%) or “many times” (13%).



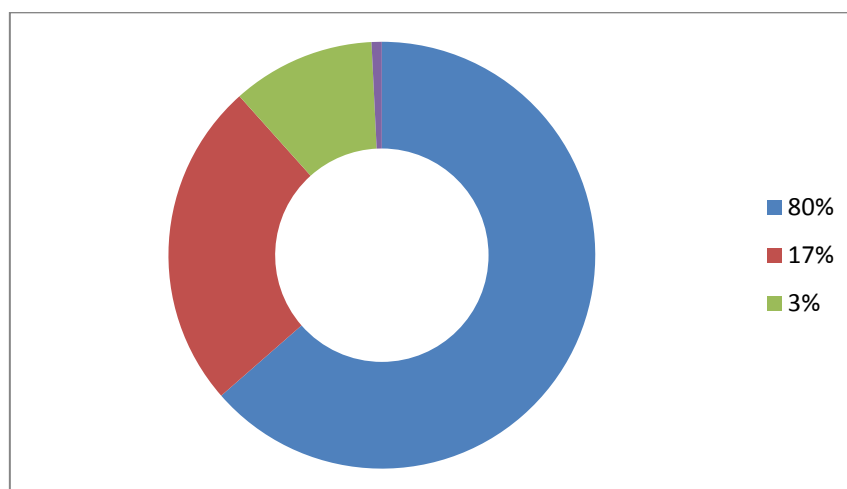
Bar-Graph 2.14 : English in Science Students' Exchange of E-mails

The analysis of the responses of the students concerning the question “have you ever found yourself obliged to use English” shows that only 10% of them answered by “never” compared to 90% who have been obliged in times to use English either “when chatting” (15%), “consulting English documents” (30%), or “with foreigners” (45%).



Pie-Chart 2.2 : Major Situations where Students were Obligated to Use English

Concerning the language used in students' mobile phone, Figure 17 below indicates that 80% of them use French in comparison to 16.66% who use English and 0% who use Arabic. Surprisingly, the rest of the students (3.33%) use other languages.



Pie-Chart 2.3 : Language Used in Science Students' Mobile Phones

Conclusion

To conclude, one can say that the analysis of the questionnaire data covered in this chapter reflected students' views concerning particular issues. These issues are mainly their proficiency in English, their attitude towards the questions related to it, and their actual use of English in daily life, in mobile phones, and when using the internet. The results illustrated in this chapter are going to be discussed.

Chapter Three : Discussion of the Findings

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3. Introduction

The general aim of this discussion is to study the perceived value of English among Tlemcenian university students in the scientific fields. In order to realize this goal, two research questions have been asked:

1. What is the perception of Tlemcenian university students concerning the importance of English in their studies and future careers?
2. What are the domains of use that English occupies in the lives of Tlemcenian university science students?

The aim of this discussion is to discuss the findings gathered in the previous chapter concerning the data collected from the students. Three sections constitute the components of this discussion. The first section is entitled 'Tlemcenian university science students' claimed proficiency in English' and it is composed of three sub-sections. While the first sub-section concerns 'exams results' and the second concerns 'reported communicative abilities', the third sub-section tracks 'English vs. French in science students' daily use'.

The perception of students concerning the value of English is going to be discussed in the second section that contains four sub-sections. Such a discussion is going to go through 'English in students plans', 'the reasons for English', 'science and the question of language choice', and obstacles of learning English and some suggested solutions'. This last sub-section is going to be divided into 'obstacles of learning English' and some proposed solutions'. Finally, in the last section of this chapter the concern is going to be 'the use of English among Tunisian university science students'. Thus, the starting point of this chapter is 'Tunisian university science students' proficiency in English'.

3.1. Tlemcenian university science students' claimed proficiency in English

As it was previously stated in the introduction to this chapter, the concern of this section is going to be 'exams results', 'reported communicative abilities, and English vs. French in science students' daily use'.

3.1.1. Exams results

The analysis of the self-reported results indicates that 47% of the investigated students obtained more than 13 in their last English exam, which reveals «Good» proficiency. This fact could legitimate drawing the conclusion that those students are competent in English especially that 40% of them claimed that they obtained a mark between 8 and 12. Thus, it could be said that more than half the students investigated might have obtained the passing ten in their last exam in English. Therefore, the level of Tlemcenian science students in English is promising and this could, actually, be understood as an important number of them in the investigated institution are said to be brilliant learners who used to work hard in all subjects in their secondary schools.

3.1.2. Reported communicative abilities

The ability of the students to understand English utterances could be classified as “acceptable” since 53.33% of them claimed they understand every word (5%) or they miss few words at times (48%). This, in fact, could be understood especially putting into consideration their claims concerning their marks. Students' reported communicative abilities were investigated also with reference to another variable, which is their ability to communicate only in English. The figures concerning this question illustrate that only 10% of them could use English without being obliged to resort to French or gestures. This figure does not seem striking, as complete competence in English is hardly expected from students of science in an EFL country like Algeria/Tlemcen.

Actually, 43% of the students resort to French that offer them an alternative solution when they fail in finding the appropriate English words. This could be explained by the daily access to French in the lives of those students as they are educated through it more than they are educated through English.

3.1.3. English vs. French in science students' daily use

Concerning favorite movies, 73% of the students prefer to watch the French version in comparison to only 27% preferring the English one, which reveals French domination and emphasize the idea of francophone in Tlemcen. However, the importance of the 27% should not be ignored especially if some historical facts that are linked to the near (real) introduction of English vs. the older domination of French are put into consideration. Such a figure could reflect the (relatively) fast and important spread of English in Tlemcen students' entertainment activities.

Pertinent dominance of French is derived from its authority over the educational of science students in Tlemcen. For instance, if students are to look for information concerning their courses (that are taught in French), the majority of them (80%) are going to use French in their search not English (20%). An important fact that needs to be recognized also concerning the high rate of using French is that proficiency in this language is higher by definition as it is the language of instruction and the second language of the country. Putting into consideration these facts, one could wonder about the perception of the value of English among those students.

3.2. Tlemcenian university science students' perception of the value of English

Four sub-sections are going to be the components of this section, which are English in students' plans , the question of why English, science and the question of language, and obstacles of learning English and some suggested solutions.

3.2.1. English in students' plans

The analysis of the results concerning the presence of English in students career plans show that students valued having more access to internet sites for their studies (56.66%) more than studying in an English speaking country (43.33%). This reflects awareness about the importance of the World Wide Web (that is mainly speaking English) in education. The important percentage of students preferring to study in an English speaking country reveals that Tlemcenian science students recognize the value of English as the new lingua franca of the world.

However, mere awareness of the importance of English is to be accompanied with a real work on mastering it, which is not, unfortunately, the case with Tlemcenian university science students. The analysis of the second question, which concerns the presence of English in students' plans in the past, shows that 73.33% have not attempted to improve their language skills outside the classroom. Thus, real awareness about the importance of English translated into real actions to invest in learning it. This leads to thinking about the possible reasons behind this situation. In fact, 8 reasons out of 30 reflected that students were 'not motivated' to do so, which means that they had no encouragement from their educators nor from their parents. This means that the responsibility of not being highly competent in English is shared between the students, parents, and the educational system.

Those who claimed that there was 'no need to' study English (mentioned 11 times) thought that their level in English is sufficient. Time limitation was mentioned 9 times out of 30 and it could be understood only with reference to the claimed loaded timetables that students complain of. It seems that students found excuses reflecting lack of motivation and the little attention language development in English has captured in their lives as students.

3.2.2. The reasons for English

Generally, students with extrinsic motivators to study English were tested in the analysis of the questionnaire to be in 50% of the cases studied extrinsic. It is not a huge majority compared to the rate of students who claimed that their goals are intrinsic (43%). What is striking in the detailed analysis of the results is that only 7% of the students claimed that their motivator is “success in education”. Compared to the rate of students who value the importance of English in finding a job (50%), this rate reveals that they do not see a connection between their education in English and their professional need in English. The 10% reflects also that 90% of the investigated students who do not think that they need English to succeed.

3.2.3. Science and the question of language choice

An important majority of the investigated students (48%) claimed that if they were in charge of education in Tlemcen, they would teach science and technology in English. This could reveal their awareness of the importance of English in educating future generations. As it is shown from the reasons they provided, 51% of the arguments emphasized on the importance of English in the world and especially for science students. It should be mentioned that this rate encompasses those who «disagree» and those who «totally disagree». Actually who «disagree» mentioned the «problem of organization» (27% of the total arguments) concerning the issue, which means, if we take it positively, that in case of existence of an organized plan to shift from adopting French to adopting English, they might agree. Thus, the popularity of such shift is considerable especially if the «indifferent» students who claimed that any language fits science and technology are put into consideration. Those accepting the adoption of English could reach 55% of the total students.

Obviously, the competition in terms of language preference involves only English and French and not Arabic. A high percentage of the arguments provided evolved around the idea that 'Arabic is not a language of science' and another lower one that "Arabic is of no help" on the international scene. In other words, these students would not be upset if Arabic were to be eliminated from the choice list. While it is not proven linguistically and historically that a particular language could not be used in science, to say that a particular language is not a language of science could reflect only Tlemcenian university science students' confusion about the idea of adopting Arabic. However, the claim that Arabic is not to be adopted as the language of science because it does not assure communication with the outside world is understood at least nowadays and in a world context characterized by dominance of English over science and technology.

Another lower percentage of the respondents mentioned that Arabic would be an obstacle to communication with the outside world. Actually, it should be stated that if French assures little communication (in comparison to English) with the world in terms of research, collaborating in scientific meetings, and working abroad, Arabic seems to assure nothing for the students in this study.

Thus, it becomes clear that while English receives considerable support concerning the prospect of adopting it as the language of teaching science and technology from the respondents, Arabic does not.

3.2.4. Obstacles of learning English and some suggested solutions

3.2.4.1. Obstacles of learning English

Various obstacles were mentioned in the responses that students felt preventing them from learning English. From the data collected, it could be inferred that the «Availability of French» is the primary obstacle facing students' learning of English. Therefore, because French is the second language in Algeria, Tlemcenian university science students face some problems in learning English.

However, the obstacles are mostly of administrative order as a high percentage of them relate to the administration and the system of education in the visited institution. This is interesting as it could reflect that those administrations are not considering students competence in English among the needed priorities that necessitate special care and management.

3.2.4.2. Some proposed solutions

The most proposed solution among the five suggested in the questionnaire is “increasing the coefficient of English». This reflects awareness on their parts that students are instrumentally motivated. Therefore increasing the coefficient of English would be a relevant and practical solution if the policy makers were really interested in raising the level of science students' competence in English.

Needless to mention also students' claimed need to be more exposed to English in order to promote learning it. This fact could be deduced from their argument that «establishing English clubs» and «increasing the time allocated to English» is the best solution to promote learning it. Therefore, the suggestions of students evolve around the idea of improving proficiency level, through increasing the coefficient of English, and changing the pedagogy of teaching it, through adopting new ways of teaching.

Students also emphasize the idea of implementing new and more creative ways of teaching English, which could be inferred from their choice of the two alternatives «obliging teachers to use tape recorders and multimedia in teaching English» and «establishing English clubs in every university». It seems that there is a feeling of dissatisfaction among the students from the pedagogy used to teach English to them as they are suggesting innovative pedagogy of teaching that consists of extracurricular activities and using technological devices instead of the traditional methods based on transactional routines.

3.3. The use of English among Tlemcenian university students

In general, it could be said that 90% of the students were obliged in some situations to use English while the number of those who claimed they have «never» been in such situations is 10%. Such a figure reflects students' real need for English that is not met by the institutions as revealed in the proposed solutions.

Data collected from the section dealing with the use of English indicates also that French dominates students' use of language in their mobile phones (80%) but indicating at the same time that English is the second choice (16.66%) before any «other» language (3.33%). Clearly, as far as French is concerned, this is proof that it has over the decades secured a prominent position in the daily lives of Algerians especially among the educated. The fact that students were not using Arabic is striking. This could be interpreted as reflecting an attitude that Arabic is not the language of technology (such is the case of mobile phones in this question.)

Nearly half of the students claimed that they have sent e-mails written in English, which is an interesting rate especially when putting into consideration the availability of French and the difficulties they reported they faced when expressing themselves in English. Concerning this issue, English seems to be rivaling French even though we can doubt the level of English used.

3.4. Major findings

The purpose of this study is to investigate the value of English, as it perceived by Tlemcenian university science students. In order to do so, two research questions were asked:

1. What is the perception of Tlemcenian university science students of English?
2. What are the domains of English use according to them?

As far as students' perception of English, it was found paradoxically that they are aware of its value, especially in professional life, but they made no moves towards mastering it. This fact could be explained by the availability of French and the lack of efficient administrative measures to promote learning English. This situation resulted in the fact that students do not value English much in the education sphere even though they are aware of its position in the world in science and technology.

Additionally, what is informative is that students felt the need to adopt some new creative methods in teaching English with more exposure through English clubs and increasing teaching hours. A surprising finding is that students lack the interest in learning English, as they feel not motivated to do so mainly because of French availability but also because they would like to be taught differently in a different “informal” learning environment. However, concerning the prospect of adopting English in teaching science, they proved to be accepting the idea to the detriment of French and Arabic, which is interesting as a finding.

As to the use of English among Tlemcenian university science students, this language was found to be creeping in spite of the persistent dominance of French, which could be explained by the increasing dependence of certain entertainment activities and academic ones on English. It is clear they have begun to make the switch in their use of electronic and technological devices.

3.5. Contribution of the study

All of the stated findings could contribute to the enrichment of knowledge about the issue of the perceived value of English especially as it suggests some recent statistics about the particular situation of Tlemcenian university science students. One of the most interesting findings of this research is that despite French domination over students' leisure activities and education, English is gaining importance in their use. The importance of this work also lies in the investigation of the real obstacles that are inhibiting science students from mastering English, which are mainly French availability, discontent with the teaching pedagogy, and lack of investment (in terms of time and money).

Moreover, suggesting feasible and especially acceptable measures, from the part of students, to promote learning English is another interesting finding of this paper. Concerning this matter, it was found that more exposure to English whether formally (more allocated time for teaching English) or informally (English clubs) is one of the most efficient measure to enable students to increase their level in English.

3.6. Limitations of the study

This work encompasses certain limitations mainly because of resorting only to 30 participants. In fact, the small number of the target population does not allow drawing real generalizations about all Tlemcenian science students.

3.7. Suggestions for Further studies

A study that concentrates on gender, level, and institutional differences concerning the perceived value of English among university science students could be helpful in clarifying important aspects of this issue. For doing so, it seems important to resort to a test when measuring students' proficiency and to supplement with interviews of university teachers.

3.8. Recommendations

It seems important that policy makers in the institution of teaching science must decide to promote learning English and resort to efficient measures derived from their students and ESP teachers such as:

1. Giving more importance to English by increasing its coefficient.
2. Providing teachers with appropriate materials for teaching like English laboratories.
3. Establishing English clubs and encouraging teachers to run them.
4. Establishing for example a university that teaches scientific disciplines in English.

What seems needed from the part of learners is mainly good will to master English and having access to scientific publications written in English because of its importance for their future careers.

Adopting more active, creative and motivating methods in teaching science students instead of the traditional and sometimes dull ways could be an important measure to take on the part of teachers. Examples of such methods are:

1. Encouraging interpersonal interaction between the students when doing classroom activities.
2. Changing the environment of teaching by organizing purposeful excursions.
3. Adopting communication based tests instead of paper-and -pencil ones.

3.9. General Conclusion

Answering the research questions, it could be said that Tlemcenian university science students are aware of the importance of English, which made them suggest innovative measures to be taken to promote the learning of it. Concerning the use of English, it was proven interesting viewing to the absence of encouragement from parents and educators.

Therefore, much of students' exposition to English comes from informal contexts such as technology and contact with foreigners.

Thus the next sections contain the major findings of the research in addition to the contribution and the limitations of the study, the suggestions for other research, and some recommendations.

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Appendices

Appendix : Questionnaire for students

Questionnaire for students

This is a questionnaire that attempts to study the importance of English among a cohort of Tlemcenian university science students. This research is going to be used for academic purposes and all answers will be anonymous.

Thank you for your collaboration.

Section 1:

1.1. Age.....

1.2. Gender

1.3. Department

1.4. Level

1.5. Specialization

Section 2:

2.1. What was the last mark you obtained in the English exam? 0-7 / 8-12 / 13-Up

2.2. Could you understand people speaking English in life or in an authentic English film or TV program? (Please use a tick)

- I understand every word they say
- I miss few words at times
- I have difficulties with understanding

- I understand better British films than American films

2.3. Could you communicate with someone using only English?

- Perfectly
- Sometimes I resort to gestures
- I resort to French if I can't express myself

2.4. When you find English and French versions of your favorite film do you choose

- The French version
- The English version

2.5. If you have a choice when using the internet (to find information for your course or research, to download music...), do you use

- English
- French

Section 3:

3.1. Which of the statements below apply to your case?

- I want to learn English to have access to more sites on the internet for my studies.
- I want to improve my English because I want to study in an English speaking country.

Section 4:

4.1. Have you ever studied English out of public institutions (British Council, American Centre, private teacher, private school...)?

- Yes provide the reasons.
- No provide the reasons.

4.2. Do you consider command of English important to succeed in education?

- To succeed in professional life
- To discover other cultures of the world to find out about any topic of the world

4.5. What obstacles can prevent you from achieving your goal?

- Absence of extracurricular activities (English clubs, exchange of e-mails...).
- Dominance of French language in Tlemcen.
- There is pressure to use the time for more important courses (example: mathematics, management, commerce...).
- Because the scheduled time of English is not encouraging.
- Because the program is not interesting.

Section 5:

5.1. If you were in charge of education in Tlemcen, would you teach science and technology in English?

- I agree
- I disagree
- I totally disagree
- Indifferent

Provide the reasons for your choice:

5.2. If you were in charge of education in Tlemcen, would you teach science and technology in Arabic?

- Agree
- Disagree
- Totally disagree
- Indifferent

Provide the reasons for your choice

5.3. If you were in charge of education in Tlemcen, what would you do to promote English language teaching at universities?

- Oblige teachers to use tape recorders and multimedia in teaching English.
- Increase the coefficient of English.
- Establish English clubs in every university.
- Increase the hours devoted to study English.
- Teach English literature and civilization.

Section 6:

6.1. Have you ever sent e-mails written only in English?

- Never
- Few times
- Many times

6.2. Have you ever found yourself obliged to use English?

- Never
- When chatting

- When using English documents
- With foreigners

6.3. What is the language of your mobile phone?

- French
- English
- Arabic
- Other

Summary

The aim of the present research is to explore the role of English and its value as it is perceived by university students in scientific fields and investigating the use of this language among them. In addition to that, it tries to suggest a set of solutions for students to improve their level in English and its use in their daily life as well in the learning process.

Key words: English Language - University students - Scientific fields –Learning Process.

ملخص

الهدف من هذا البحث هو استكشاف دور اللغة الإنجليزية وقيمتها من خلال مفهومها من قبل طلاب الجامعة في المجالات العلمية والتحقيق في استخدامها فيما بينهم. بالإضافة إلى ذلك، فإنه يحاول اقتراح مجموعة من الحلول للطلاب لتعزيز مستواهم في اللغة الإنجليزية واستخدامها في حياتهم اليومية، وكذلك في عملية التعلم

الكلمات المفتاحية: اللغة الإنجليزية- عملية التعلم - طلاب الجامعة - المجالات العلمية .

Résumé

Le but de notre recherche est d'explorer le rôle de la langue Anglaise et sa valeur tel qu'elle est perçue par les étudiants universitaires dans les domaines scientifique en investiguant l'utilisation de cette langue. En plus de cela, il tente de proposer des solutions pour que les étudiants puissent améliorer leur niveau en anglais et son utilisation dans leur vie quotidienne et dans le processus d'apprentissage.

Mots-clés : la langue Anglaise - Etudiants Universitaires - domaine scientifique - processus d'apprentissage