

University College Plymouth St Mark & St John

TOWARDS THE ADOPTION OF INCLUSIVE STRATEGIES FOR  
A NON-SIGHTED UNDERGRADUATE STUDENT IN AN  
EFL CLASSROOM: A CASE STUDY

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## **Abstract**

The main objective of this case-study was to understand which inclusive strategies—technological and/or socio-affective—tend to render a positive influence in the learning process of a non-sighted undergraduate student enrolled in an English as a foreign language programme in a Mexican private university. The inquiry focuses on one of the eight courses that constitute the programme. Vygotsky's views and their effects in inclusive education founded the decisions taken regarding the implementations made to promote an inclusive environment that may lead the non-sighted learner (NSL) to a successful achievement of the course aims. On the one hand, adjustments within the technological area incorporated the use of assistive technology, optimizing the use of JAWS—written-to-audio text-translator—inside and outside the classroom. On the other hand, adaptations within the socio-affective field included the encouragement of mediation practices, the incorporation of collaborative activities and the support of the NSL's strengths. Data was gathered from different stakeholders, which included the NSL himself, his former and intervention-group teachers and peers, as well as external observers. Video-recordings, interviews, and questionnaires were the means used to attain the data. Two main conclusions may be drawn from the results obtained; first, that the mediation and collaborative practices incorporated during the study promoted positive attitudes on the class as a whole and especially on the target student, strengthening his self-esteem and, therefore, making his learning efforts more successful; second, that supplying the NSL with information in advance and optimizing his use of *technological resources*, provided him with egalitarian learning and performing conditions throughout the course. This paper also aims to highlight the need for further work regarding adaptations of textbooks and tests to make them more accessible to

NSLs. Finally, some conclusions and recommendations are presented in hope that they inform teachers with non-sighted learners in their EFL classrooms.

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## **CHAPTER 1**

### **1 Introduction**

A lot has been said and debated on Inclusive Education (IE) since the concept was officially acknowledged through the Salamanca Statement on Special Needs Education, released by the UNESCO in 1994. There is still controversy when referring to IE; Ainscow and Cesar (2006: 233) describe it as the incorporation of disabled people to mainstream education, responding positively to students' diversity and noticing these differences as opportunities to enhance learning rather than perceiving them as obstacles (Ainscow 1999: 182). On the other hand, Allan expresses her concerns about the quality of support learners with special needs receive by unprepared teachers, raising her doubts about whether inclusion will ever become a reality (Allan 2008:9).

People are becoming more aware of IE in the educational system in Mexico, although during recent years the focus has mainly been placed on elementary education. The challenge to cross the line and move towards secondary and higher education remains poorly acknowledged (Guajardo 2009). Almost a decade after Salamanca, in Mexico, the National Association of Universities and Institutions of Higher Education (ANUIES using its Spanish acronym) released a manual for the inclusion of people with disabilities in Institutions of Higher Education, pointing out that such inclusion should attend to both diversity and disability while taking into account the needs of each member of the educative community (ANUIES 2002:25). In Mexico, non-sighted students are beginning to find ways into the mainstream system of higher education, profiting from the opportunities that interaction with sighted peers and equal academic instruction brings to them. Nevertheless, they still make up only 3.8% of all visually disabled, making their

presence feeble. In spite of teachers' good intentions, the fact that most of them have seldom been exposed to having students with this profile makes Allan's concerns about unprepared teachers more the rule than the exception. In the field of foreign language learning, the challenge is even greater for the higher education blind student since most learning materials in this field, even aural ones, tend to rely mainly on visual inputs. The combination of limited awareness concerning IE with the absence of proper teaching strategies and materials for blind students tends to make teachers who are faced with the situation of receiving such a pupil in their class highly distressed, and they tend to neglect them altogether. This feeling was supported by Bruno (not his real name) who is a non-sighted learner (NSL) enrolled in an English Language Programme at a higher education institution. When asked about his learning experience, he expressed feeling lost, frustrated and both ignored and excluded during his class. He also pointed out he was unable to understand either the teacher or his classmates most of the time. During class, he was requested to perform according to the same parameters set for the rest of his classmates. Nevertheless, except for on one occasion, he passed all the levels because requirements were reduced for him, assuming he would not be able to achieve the aims for that level even if he repeated the course again. The result was that he moved forward without the real foundations to perform successfully in the following level.

Since the aim of this study is to find ways to identify strategies that may help students like Bruno enjoy inclusive education situations and, as Vitello and Mithaug (1998) and Newman and Holtzman (1993:77) state, inclusive practices are put into action through cooperative learning strategies, the theoretical foundation of this work will be mainly grounded in Vygotsky's social theory, along with other humanistic theories.

## **1.1 Background of the Research**

This research, which will be a case-study, is the result of my concerns about my experiences tutoring Bruno, the first non-sighted learner to have enrolled in the Language Programme of this private higher education institution in Western Mexico. In this programme, learners must move from a beginner to an upper intermediate level of English (B2 CEFR) by incorporating the four skills of the language. Reaching a B2 level of English proficiency has become an institutional requirement for graduation at this institution. Bruno is a 24 year-old NSL who studies Communication Science and is in his penultimate semester. When he was 5 years old due to an accident, he became blind. Having attended a regular preschool as a sighted child, he later joined an elementary school for the blind, where he learned the Braille system. He worked with it until 6<sup>th</sup> grade, when he learned to use a screen reader and gave up Braille altogether. He moved to the mainstream system to complete secondary and high school, but was not included in most of the class activities. Therefore, his choice of university was one which promotes inclusion.

## **1.2 The Purpose and Value of the Study**

The purpose of this study is to understand which strategies tend to render a positive influence in the learning process of an NSL in an EFL context and which ones tend to hinder it. The results will hopefully serve three main goals: first, raise awareness regarding IE among teachers and peers by informing stakeholders how the implementation of proper technological strategies and tools enhances not only students' learning but their self-esteem; second, identify the socio-affective strategies that may improve the student's class performance; and finally, prepare a handbook for teachers who are willing to embrace this

opportunity or who are faced with the challenge to work with visually disabled students. This handbook will enclose suggestions, share experiences from this research and try to set the grounds for the development of a common language on IE among the teaching staff in the institution.

### **1.3 Research Question**

This research has been guided by the following research question:

“Which technological and socio-affective strategies tend to render a positive influence in the learning process of a blind student in an EFL context and which ones tend to hinder it?”

The research is a case study, based on a qualitative approach. The fact that it is a case-study and that there is no researcher triangulation might be a limitation of the case. The data gathering was carried out at a Higher Education Institution in Mexico between April and July 2011.

### **1.4 Organisation**

This paper is organised in five chapters. Chapter one introduces the research problem, the background of the research, the purpose and value of the study. Chapter two reviews the relevant literature for the study: it defines inclusive education, non-sighted learners and inclusion. It examines some Neo-Vygotskian views on participation and learning; socio-cultural theory, scaffolding, and mediation, together with collaborative learning. Chapter three describes the research framework and the methodology used in this case study based on a qualitative approach. It explains the procedure of the research, the data gathering and the analysis carried out. Chapter four describes the results and discusses the strategies

implemented during the research, and evaluates their value and faults. Chapter five presents an overall summary including conclusions, and implications of the research, as well as possible paths for future research.

## **CHAPTER 2**

### **2 Literature Review**

In this chapter, I will examine six main points: First, I will mention the origins of the concept of Inclusive Education (IE) and how it has developed in the Mexican higher education context. Next, I will discuss Vygotsky's views and their implications in IE. After that, I will talk about the concept of blindness in the ELT world and how some practices in this environment hinder the non-sighted learners' (NSLs) process. Then, I will illustrate how assistive technology promotes inclusion of an NSL. Next, I will mention why I consider collaborative learning should be an approach pursued in IE, and finally, I will bring up some aspects of the affective side of learning that are pertinent in NSLs learning.

#### **2.1 Origins and Terminology of Inclusive Education**

The first school for disabled people, specifically for the blind, was open by Valentin Haüy in Paris in 1786 (Mangal 2007:61). Although in the following centuries other equivalent institutions were opened in different countries, very few disabled people received the benefit of schooling, and the majority was secluded in mental institutions or in their homes. Until very recently, disabled people were regarded as marginal by most societies. With the Universal Declaration of Human Rights on December 10, 1948, the right of disabled people to formal education was first officially acknowledged, but concrete action was not taken by most governments before the 70's. The struggle against discrimination and segregation and for civil rights and integration in the late 60's permeated into the world of the handicapped. Parents began to organize in associations to create proper conditions of education for their disabled children. Governments, mostly in developed countries, produced special education

systems which attended the needs of children according to their disabilities (Gargiulo 2010:15). Nevertheless, social pressure against marginalization of groups due to their profile — ethnic origin, color, religion, etc. — became stronger, highlighting the situation of disabled people as subjects of segregation in education and labor. In 1990 at the World Conference of Education, the concept of *education for all* was first stated, meaning that disabled students should not be segregated in special schools but given the opportunity to benefit from mainstream education. In 1994, the Salamanca World Conference on Special Needs Education endorsed the idea of inclusive education, stating in its final document that regular schools with an inclusive orientation are "the most effective means of combating discriminatory attitudes, building an inclusive society and achieving education for all". It also suggests that such schools can "provide an effective education for the majority of children and improve the efficiency and ultimately the cost effectiveness of the entire education system" (UNESCO 1994: iv). The influence of the Salamanca statement and its framework for action has extended beyond the 92 participating countries that signed it. Its inclusive policies have been incorporated into many educational systems around the world. Nevertheless, general laws and their regulations do not necessarily take into account the wide range of variables that interact when such a process takes place in the everyday classroom. The spirit of integrated learning thrives on the principle that necessary adaptations will be implemented to accommodate diversity among students in the learning environment (Guajardo 2009: 3). Flexibility in learning styles, levels of competence and contents will allow for each individual's potential to be developed properly, keeping in mind that every child has unique characteristics, abilities and learning needs (Echeita 2006:86, Ainscow 1999:33, Allan 2003: 74, Daniels and Garner 2000:112, Rose 2010:205,

Booth and Ainscow 1998:84, Villa and Thousand 2005: 85, Cangelosi 2006:31). Therefore, special students who are incorporated into mainstream classrooms require special adaptations, properly trained teachers and syllabi relevant to their profile. Moreover, the literature states that, in overcrowded classrooms with limited physical and human resources, students with special needs will not benefit from the educational experience and will, at the same time, take a toll on their peers' opportunities for development (Hallahan and Kauffman 2002: 195, Miles and Singal 2010: 11, Allan 2008: 9). This is a lose/lose relationship. It has been stated as a fact that, when meaningful transformations at classroom level are imposed in the form of nationwide policies with decisions which are based more on conceptual grounds than on empirical experience, the required stages for adaptation, transformation and implementation are often overlooked (Ronkainen 2011). These politically correct decisions often render makeshift solutions rather than cohesive integrations that synthesize all ideas into a new integral whole. According to Ainscow and Cesar 2006: 235), the frequent absence of proper conditions to accommodate the integration of students with special profiles has become a barrier to a more extensive implementation of integration policies, since, according to studies in most countries, progress in this field has proved limited. Nowadays, not only are many mainstream educationalists resistant to the idea of inclusion, but some disability-focused organisations argue for separate, "specialist" services, which have already proved to render results (Ainscow and Cesar 2006: 235).

We can conclude that detractors of IE are mainly concerned with situations where conditions are not adequate. Ainscow and Cesar, after having revised this interesting controversy between specialists for and against inclusive education, come to this synthesis

“A striking feature of all of the texts is the extent to which they conclude that it is necessary to examine particular contexts in order to find ways of moving thinking forward” (2006: 236). Every situation must be analysed individually, and conditions, properly provided.

## **2.2 Inclusive Education in Mexican Higher Education**

After seventeen years of the Salamanca statement, Mexico is no stranger to the difficulties faced by most countries in terms of providing inclusive educational conditions for people with special needs. With a population of 100 million plus — and a range of economic disparity that can shelter under the same economical umbrella both the richest man in the world and 40 million plus in conditions of extreme poverty — the Mexican educational system has achieved basic level coverage for 90% of the children. In this group, 82% of the blind children in this age range are included. Mexico suffers from a strong phenomenon of abandonment along the path to higher education. This means that only 14% of the students who start out at elementary school will attend university. According to the National Institute of Statistics, Geography and Informatics, (INEGI, using its acronym in Spanish), the number of blind students who complete elementary school is 14.2%, while only 6.8% finish secondary school, 5.3% conclude high-school and only 3.8% of the total population of blind students graduate from higher education (2000).

From these numbers, we can understand that the largest efforts to incorporate IE have so far been invested in basic education, since it attends the largest population of disabled students. The Ministry of Education (Secretaria de Educacion Publica), has stated through clear guidelines that IE is to be implemented in basic education. Therefore, the efforts to build awareness and help teachers develop proper skills in the field of IE have been mainly

focused on this stage of education through diploma courses and masters programmes being offered by various institutions, such as Universidad Autonoma del Estado de Morelos, with a Masters in Attention to Diversity and Inclusive Education, and the Universidad Pedagogica Nacional with a Diploma in IE.

Unfortunately, this trend has not yet permeated enough to higher education despite the fact that it has existed in statements for several years. ANUIES in its manual released in 2002, points out that inclusion should cover all educational levels and not only basic education; also, on May 28<sup>th</sup> 2011, the Mexican government decreed *The General Law of Inclusion for People with Disability*, whose article 12 states the importance of promoting the inclusion of disabled people in all the levels of the National Educational System (Union Congress 2008:7). However, even if IE within higher education institutions is an official pronouncement, developing proper inclusive conditions is by no means a simple task, as we have analysed above. It is a process that demands economic, academic and human resources on the part of institutions, and time and work on the part of teachers. Nevertheless, pronouncements are the first step towards awareness, and awareness an essential ingredient that leads to action.

### **2.3 Implications of Vygotsky's Views in Inclusive Education**

Vygotsky's ideas on disability and special educational needs are still relevant today and they could easily be the antecedents of IE. Lev Vygotsky (1896-1934), the Russian psychologist and philosopher who developed the Socio-Historical Theory of learning, graduated from university in 1917, just as the Revolution War broke out. Strongly influenced by Soviet philosophy, aiming for an egalitarian social order, Vygotsky began his

work attending to the large number of war victims — orphans, disabled and homeless children — who had been deprived of the concept of family or school. This experience rendered his first works in the field of *Defectology* (the study of defects), which focused on children with disabilities such as; hard of hearing and deaf, visually impaired and blind, and speech and language impaired (Petrovsky and Yaroshevsky 1998:364 in Kozulin et al. 2003:200). He considered these limitations to have a strong socio-cultural foundation rather than merely an organic one (Daniels 2007:334). He observed how promoting a sense of belonging, identifying and reinforcing the learner's strengths, and providing them with proper accompaniment during their learning process enhanced the learner's performance. It was at this stage of his research that he first described the role of the social environment in the cognitive and affective development of the learner, which would in time become the milestone of his pedagogical philosophy (Daniels 2008:3).

For Vygotsky, the nature of an individual's education is determined by the social environment in which they grow and develop (Vygotsky 1997: 211). He states that higher psychological functions, which allow for problem solving processes and strategies, are not built individually, but are developed and internalised through social interaction. Within this interactive learning are three essential elements: the mediator, who models the skill to be acquired and accompanies the learner in his process of acquisition, the scaffolding, which encompasses the intermediate activities the learner needs to master to acquire the whole process, and the Zone of Proximate Development (ZPD), which is the area of potential learning, a path that the learner must transit accompanied by the mediator to achieve mastery of the process (Vygotsky 1978:85). Vygotsky illustrates this process by stating

“what children can do with support today, they can do alone tomorrow” (in Cummins 2002: 10).

Regarding the situation of the disabled, Vygotsky developed his Disontogenesis Theory (DT) (distorted development), where he categorized defects as primary and secondary, depending on their origin. Primary defects encompass organic impairments due to biological factors, while secondary ones have a social origin and produce distortions in higher psychological functions. He proposed that individuals organically impaired who are exposed to a socialized learning environment will develop according to their potential, while those deprived of this opportunity will evolve towards secondary defects. Vygotsky declared that “A child whose development is impeded by a defect is not simply a child less developed than his peers but is a child who has developed differently (1993:16).” Organic impairments may be balanced through *compensatory strategies* such as abstract reasoning, logical memory, voluntary attention and goal-directed behaviors, which will constitute lifelong tools (Daniels 2007: 342). As Vygotsky states:

“Training sharpness of hearing in a blind person has natural limitation; compensation through the mightiness of the mind (imagination, reasoning, memorization, etc.) has virtually no limits (in Kozulin 2003:204)”

Disabilities are such only to the eye of the “normal”. Vygotsky argued that a disability is perceived as an abnormality only when it is brought into the social context (Gindis 1999:335). Blind people are only less able in the world of those who see, unfortunately for them, the majority, and who have developed social conditions for sighted people. Within the classroom, focusing on the disabled students’ potential rather than on their limitations

and on forms of incorporating the students socially rather than compensating just for their biological handicap should be the focus of the teacher's concerns (Gindis 1995: 78).

The foundations and philosophy of IE are built on Vygotsky's perception of the disabled learner as a whole person with special potential to be positively shared within an environment where everyone has something to contribute to the growth of the group.

#### **2.4 Non-Sighted Learners and Inclusive Education in the ELT World**

If the amount of literature concerning a topic may be related to the level of awareness or interest such topic has among the professionals in the area, it may easily be said that there is little awareness about Special Educational Needs (SEN), and especially about SEN and Inclusion in the ELT world, as Kay mentions in his article; "Special Needs: a challenge neglected by ELT (2001:1)". We could then assume that the specific issue of blindness in the ELT world, especially regarding IE, is even scarcer. Fortunately, some experts, such as Guinan, Marek and Conroy have been working to raise awareness among ELT teachers about the special features that NSLs bring into the classroom.

There seems to be a generalized belief that NSLs would make ideal language learners due to their compensatory abilities, such as a trained memory, acute aural and oral skills and high concentration (Marek 2006:1, Alberti and Romero 2010: 77, Nikolic 1987:63). This might be true in Special Education schools where all the students share the same disability, as has been set out by Marek and his EFL programme for blind children (2000). In this context, all materials and teaching situations are adapted to the skills NSLs have in common. The question is whether NSLs' compensatory skills would make up for their

absence of sight when the foreign language is learned in a mainstream system, where the aims and syllabus are developed with sighted students in mind. The complications that IE has shown when implemented without proper staging and resources will likely be repeated in this context. Without proper understanding of each student's strengths and weaknesses, needs and goals, generalised frustration among stakeholders will be the likeliest result (Marek 2000: 2 and Guinan1997: 1).

Guajardo describes the problems faced by disabled learners in higher education programs as "barriers to learning" (2009:1). He states that these students are required to perform in conditions that do not attend to their needs, without proper mediation or adaptation of resources. These external barriers come from the environment they face, not from their own limitations.

According to Marek, some of the barriers NSL in English programmes face are:

- First, the lack of qualified teachers in inclusive classrooms. Guinan and Marek state that the ideal situation would be for the English teacher to be an IE expert. Nevertheless, this is very difficult, since English teachers, especially in Mexico, are rarely specialised in any particular disability. Then it would be desirable for the teacher to understand that there are different perceptions of reality and to embrace the opportunity to experience life from the perspective an NSL may hold. This would let them empathise with all the learners in their classroom (Hick et al. 2009: 70), as well as to value individuals (Booth et al. 2003:30). Specialized knowledge about a certain disability is not the requirement to be a good inclusive teacher, sensitivity to students' potential is (Alberti and Romero 2010:13).

- The second barrier Marek perceives in inclusion and ELT is the lack of adaptations made for these learners (2006:1). One of the points in which inclusion experts coincide and which they see as a foundation of IE is in the changes and adaptations the curriculum should go through in order to meet the needs of diverse learners (Echeita 2006:86, Ainscow 1999:33, Allan 2003: 74, Daniels and Garner 2000:112, Rose 2010:205, Booth 1998:84, Villa and Thousand 2005: 85, Cangelosi 2006:31). Considering that IE tries to cater for diversity, minimizing the barriers that hinder the learning process (Ainscow et al. 2006: 40), the curriculum and assessment should respond to these objectives and always be open to changes. It is impossible to have a successful IE environment without a flexible curriculum. In other words, education must be personalized to focus on diversity of learners.
- Finally, the scarcity of appropriate materials for NSLs is the third element Marek (2006:1) cites as a barrier for students with this disability to learn English. The major channel of input for an NSL is auditory, followed by tactile (Gouzman and Kozulin 1998: 1), contrary to the material that is used nowadays to learn foreign languages, which tends to be highly visual and with a confusing format for the non-seer. English language teachers tend to transmit meaning or rely strongly on resources such as; flashcards, posters, videos, tables, board, textbook, etc, all visual aids that create great inconvenience for the NSL.

Vygotskian views have caused a great impact on the educational environment, and the ELT world has not been left aside. The main relationship between Vygotsky's ideas and learning a foreign language lie in the social process and social interaction which support mediated learning (Vygotsky 1978: 131, Williams and Burden 1997:62).

## **2.5 The Importance of Technology to Promote Inclusion for NSLs**

Nowadays, Information and Communication Technology (ICT) is an essential working and learning tool for any student and even more so for NSLs, since this *Assistive Technology* (AT) has become their bridge into the classroom dynamics. Although proper mastery of AT can be initially challenging both for the NSL and for the teacher, once such mastery is achieved AT becomes the best tool for exchange of information. This has a positive impact beyond the classroom, since AT offers people opportunities to participate in life in ways that might not have been otherwise possible (Finlayson and Hammel 2003: 109).

Some advantages that AT provides to NSLs are that it:

- delivers education in the most suitable way
- provides a sense of autonomy as well as reconnection to the community
- can reduce psychological as well as physical stress
- leads to an enhanced quality of life and self-esteem

(Scherer and Glueckauf 2005: 133).

Appropriate AT for NSLs can use a wide range of software. For this research the software used was:

- JAWS © (Job Access with Speed) for Windows is a software screen reader designed for blind people. Its objective is that PC or Laptops that work with Windows are more accessible for visually disabled people. The program transforms the written information (word documents) into a robotic sound, that way the person can listen to the information without having to see it.

- ABBY FINE READER © is OCR (Optical Character Recognition) software for creating editable files from scanned documents. This means that any PDF file or text from a book can be converted into a word document.

Unfortunately, as previously mentioned, some people with disability may find this technological support too difficult to handle and become even more stressed. This support may then backfire and become a barrier rather than an aid. It is important as a teacher to make sure that students feel comfortable with the resources being proposed and to find the way to make proper adjustments when needed. The PAIDS questionnaire (Psychological Impact of Assistive Devices Scale) (Jutai and Day 2002: 107) has proven to be a useful tool for measuring the psychological impact such tools may have on the user, providing important insights for the teacher for further decisions to be made (See Appendix I).

## **2.6 Collaborative Learning for Inclusion**

Collaborative Learning (CL) is the student centered approach that can be defined as a learning situation during which students actively contribute to the accomplishment of a mutual learning goal and try to share the effort to reach it (Teasley and Roschelle 1993:7). Its principle is that learners share their work by searching for understanding, solutions, and meaning during the development of a common product. CL activities center on learners' exploration rather than on the teacher's presentation (Smith and MacGregor 1992:1). The mechanics of CL can be easily bonded both with the principles of the Socio-Cultural Theory and with those of IE. This is why several authors have come to consider CL as the embodiment of inclusive philosophy (Johnson and Johnson 1989 and Kagan et al. 2004). One of the main advantages offered by CL is the opportunity it opens for scaffolding

processes, since this environment promotes that, through frequent interaction, more capable learners may mediate the less capable ones to accomplish a task that the latter might not be able to complete while working individually (Vygotsky 1978). Vygotsky's value of social interaction as a source of learning is very powerful in CL. As Laughlin et al. mention, group learning is superior to individual learning when the objective is to solve complex problems (2006: 644). CL promotes more symmetrical power relations between teachers and students, opening the opportunity for learners to control and improve their own processes.

## **2.7 The Affective Filter Hypothesis**

Affective components have a high impact in the learning process and, according to Krashen, the most influential in second language acquisition are motivation, self-confidence and anxiety (1988: 46). The ideal combination in every student is a high degree of the first two and a low one of the third. These factors may not always be under the learner's control, they might vary from context to context and from day to day, since social interaction during the process can impact each and/or all of them at any given moment. Although a student may walk into the classroom with the right disposition to tackle the challenge, the conditions created by the teacher and/or the peers may turn uncomfortable enough to become discouraging, frustrating or stressful. Controlling affect is not an easy task for teachers, in fact it is difficult and delicate (Wright 2005: 149). When low motivation or self esteem arises within stressful situations, mental-blocks prevent learning, therefore reinforcing the negative cycle (Krashen 1982: 33). These feelings of frustration tend to undermine people's resilience, sometimes leading them to feeling forced to

withdraw from learning altogether (Claxton 1999:37). It is the teacher's job to detect such stressing situations in students and to generate appropriate learning conditions. Arnold points out how teachers' commitment to the *humanistic* approach might guide them to a better understanding of the learners' emotions (1999: 3), and how by incorporating integrative orientations, i.e., making students feel part of the group, they can also foster language acquisition (Krashen 1981: 26 and Gardner 1985).

To sum up, the importance of IE can not be denied nowadays. Nevertheless, it is necessary that it be carried out in proper conditions and thinking of the specific contexts where it will take place. Other central points to be considered related to IE and language learning are; the importance of social interaction, collaborative learning and mediation in the English language learning process, not forgetting the technological aspects, which will assist the NSL and therefore promote inclusion, which will hopefully in turn help the NSLs' self-esteem grow.

## **CHAPTER 3**

### **3 Research and Methodology**

The purpose of this chapter is to describe and provide the rationale underlying the research process followed in this study. To that end, first, I will state again the research question explaining the aim of the study. Then, I will describe the methodology applied for this research and the rationale behind making this decision. Then, I will list the instruments used to gather data and explain how the process was carried out. After that, I will explain how data was analysed and the categories drawn from this analysis. Also, I will discuss the validity of the case-study approach and will describe the efforts made to improve it. Finally, some limitations of the study will be mentioned.

#### **3.1 Research Question**

The aim of this case study is to identify:

Which technological and socio-affective strategies tend to render a positive influence in the learning process of a blind student in an EFL context and which ones tend to hinder it?

#### **3.2 Case-Study Approach**

The method used for this research is a qualitative case-study with a single-case design. This approach was chosen because this study fulfills the profile described by Yin, since it:

- calls for an in-depth analysis of a single case within its real life context,
- draws on previous theoretical literature in order to conduct data collection and analysis,
- provides new evidence for future research, and

- relies on multiple sources of evidence (Yin 2009: 18).

The case-study approach is appropriate to research experiences where the aim is to find an answer to how and why certain things happen (Yin 2009: 10), which makes it the ideal approach to understand Bruno's, the NSL, English language learning process. In addition, it will allow me to see the problem from different perspectives and, hopefully, the results will raise new hypotheses so that further investigation may be carried out.

### **3.3 Data Gathering**

Since the aim of this case-study is to understand which technological and socio-affective strategies improve the learning process of an NSL within an inclusive environment (as fig. 1 shows), different meaningful stakeholders were involved in the inquiry in order to achieve a deeper understanding of the phenomenon. The group was constituted by previous teachers and peers, current peers, and myself, as his present teacher and tutor. All data were gathered in Spanish, but items have been translated into English and then translated back into Spanish for the purpose of the reliability and validity of the study (See Appendix II). Interviews were carried out to draw the insights the different participants hold of this learning experience (Yin 2009: 108 and Seidman 1998:3). Data were gathered using four different instruments applied to different stakeholders:

- Video recordings of previous and intervention group lessons.
- Semi-structured interviews and e-mailed open ended questionnaires used with former teachers (See Appendices II and III).
- Interviews with former peers (See Appendix IV).

- Interviews with intervention group peers (See Appendix V).
- Questionnaires completed by intervention group peers and Bruno (See Appendices VI and VII).
- Bruno's Interviews (See Appendix VIII and IX).
- Journal Analysis

**3.3.1 Video recordings of former and intervention group lessons:** Having been asked one week in advanced, one of Bruno's former teachers and the group he belonged to consented to having a 105-minute lesson video-recorded. Both the recording of video and of field notes were done by another teacher involved in the program, but alien to this research project. Later, some teachers related to Bruno's process were invited to watch the video and participate in a group-interview, which was also recorded. The group was made up of four people: two of his former teachers, one of whom was the teacher in the recorded class, a teacher who had tutored him before and the teacher who had done the recording during the lesson. The information obtained was used to tap into teachers' beliefs and feelings about having Bruno in their group and their interpretation of this experience.

A recording of the intervention group where adjustments were implemented was carried out with students' consent during the third week of the course by the same teacher who had done the former one. The product of this session was observed and analysed by a third English teacher working in the same institution within a different programme. She was asked to comment on four aspects. First, the degree of inclusion she perceived Bruno was being exposed to; second, the quality of interaction she considered he was having with his

peers; third, her perception on Bruno's disposition to participate and his general mood, and finally, the degree of effectiveness of the activities which were being carried out in class.

**3.3.2 Instruments Used with Former Teachers:** While individual semi-structured interviews had been planned for the three former teachers who are still available, only one could be carried out as such, with a duration of 30 minutes. A back-translation was carried out for validity purposes (See Appendix II). The other two, due to time constrictions, were transformed into e-mailed open-ended questionnaires. The objective of these instruments was to understand each teacher's perception of their experience working with Bruno (See Appendix III).

**3.3.3 Interviews with Former Peers:** After the first video recording of the pre-implementation class, students who had been in that session were asked if they would be interested in participating in an interview related to visually disabled students and their process of learning English as a foreign language. Out of nineteen students, four gave an affirmative answer and, after making the arrangements, only two showed up for the interview. These semi-structured interviews were carried out individually and each lasted around ten minutes. Most questions dealt with the participant's perception of having a NSL in their group, of how they felt about the experience and of the general dynamics of the group (See Appendix IV). The purpose of these interviews was to explore peers' experience of sharing a class with Bruno, their conceptions about inclusion, and the extent to which interaction with him was taking place inside and outside the classroom.

**3.3.4 Interviews of Intervention Group Peers:** As in the previous case, peers were invited to participate in an interview. Out of twenty-two students, fifteen accepted and seven were

randomly chosen, six of which actually participated. Again, a ten-minute, semi-structured interview was carried out. In addition to the aspects contained in the former-peers' interview, this one included questions regarding their perception of the classroom environment and how they had experienced their working moments with Bruno (See Appendix V).

**3.3.5 Questionnaires Completed by Intervention Group Peers and NSL:** All twenty-two of Bruno's current peers, between 19 to 32 years old, answered a questionnaire which invited them to reflect on the experiences they had had with him, the organisation of the activities and their feelings throughout the process (See Appendix VI). An open-ended format was chosen for the great variety of information it provides with, accuracy, efficiency and validity purposes (Kumar 2005: 134). Two questionnaires were completed by Bruno, one on the role of assistive technology (See Appendix I) and the other on his perception of the class environment (See Appendix VII), both in the present course and in the former courses he had attended.

**3.3.6 NSL's Interviews:** Three semi-structured interviews were carried out with Bruno. The first one, before starting the intervention course, intended to learn about his personal and learning backgrounds, as well as about his experience and feelings through the levels he had completed in the programme, in terms of teachers, peers, material and methodology (See Appendix VIII). The second interview, tried to identify the strategies we had been working with which he found adequate and/or made him feel incorporated into the group. The last interview was carried out at the end of the course by a teacher alien to the

programme. The purpose of this interview was to understand Bruno's feelings and sense of success during the course.

**3.3.7 Journal Analysis:** All through the intervention course, I observed and took notes on the implementations of a variety of strategies and the results they rendered. The goal of this journal was to understand and later compare with stakeholders how accurate my perceptions had been.

### **3.4 Data Analysis**

“The analysis of case-study evidence is one of the least developed and one of the most difficult aspects of doing case studies (Yin 2009: 127).”

The diversity in qualitative studies produces a variety of processes and methods for analysing data, which becomes a real challenge for the researcher (Punch 2005: 193). This qualitative case-study is not an exception and, since the data gathered are contained in different formats,—such as videos, observations, interviews, questionnaires, and journals—the method of analysis that I will follow is that suggested by Yin, using a pattern-matching logic (2009: 141). In other words, codes (Miles and Huberman: 1999: 58) have been used to group data according to commonalities of the different concepts discussed in the theoretical framework. Throughout the coding process, I have arranged data around the two main categories previously mentioned: technological and socio-affective strategies (See fig. 1).

- **Technological strategies** focuses on four main aspects: 1) *the suitability of the material sent in advance*, 2) *the use of e-textbook format*, 3) *the use of JAWS© for Windows* and 4) *adaptations of evaluation forms by audio-recording assignments*.

- **Socio-affective strategies** refer to the analysis of all the elements that have been found to help Bruno experience an inclusive environment. These elements are: 1) *collaborative learning*, 2) *mediation work*, 3) *space and time to demonstrate abilities*, 4) *working in the same conditions as the rest of the group members*.

Figure 1 shows how adjustments carried out within the *technological and socio-affective areas* will lead the *NSL* to a *successful learning process*.

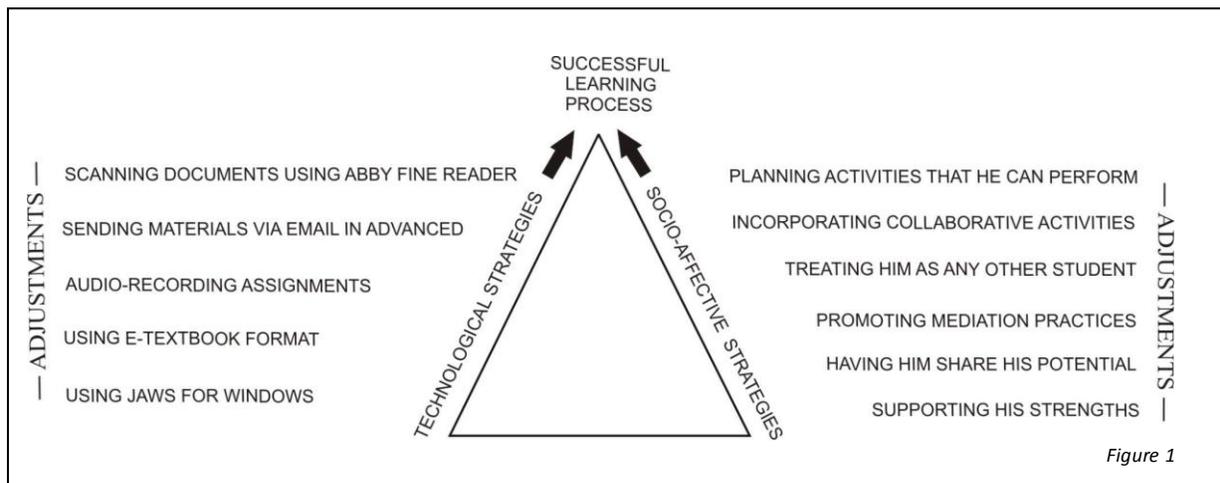


Fig. 1: Aim of the Case-Study

### 3.5 Validation of the Case-study Approach

Even if the case-study method is very popular in different research areas, and is gaining supporters, some authors have questioned the validity of a qualitative case-study research. Apparently, its focusing on a single unit reduces its representativeness (Hammel et al. 1993: 23, Gerring 2007: 43). To enhance the validity of this study and in the spirit of making findings as true and certain as possible, the basic strategies stated by Merriam have been followed to the extent the present state of this study allows. The list below defines the degree so far achieved:

a) **Triangulation:** multiple sources of data; opinions from different investigators and literature from different authors have been incorporated.

b) **Member checks:** taking data back to who derived it and asking if results are credible has been done with major stakeholders. I verified with Bruno, some of his peers and some teachers if results were trustworthy.

c) **Long-term observations:** repeating observations of the same phenomenon has not been done yet.

d) **Peer examination:** asking investigator's peers to comment on findings has been done. I asked other teachers to observe classes and videos and comment on their findings.

e) **Participatory research:** involving participants in different phases of research has been done as extensively as possible. I tried to involve Bruno in the research by interviewing him on the adjustments that were carried out. Also, different teachers were interviewed during the research process.

f) **Researcher's biases:** clarifying the researcher's assumptions has been worked throughout the different stages of the research (Merriam 1998: 205). Since I was his group teacher, his tutor and the person carrying out the case-study, all at the same time, I was concerned about risking the validity of this case-study, and therefore, for triangulation purposes (Merriam 1998: 204), I asked the teacher who had analysed the video-recording of the intervention course to perform the final interview (See Appendix IX). Talking to a person unknown to him provided a natural opportunity for Bruno to discuss his feelings and perceptions, both during his former learning situations within the English programme and

during this last course. All the different aspects of a class situation; interaction, materials, strategies, classroom environment, peers and teachers' attitudes were described, contrasted and discussed in terms of their appropriateness for his condition as a foreign language learner.

Validity should not be a serious problem if the experience of the subject of the study and the theory are linked, so that, from the theory we can make a contribution that can be useful to others.

### **3.6 Limitations of the Study**

There are three important limitations of the study; the first one is the complexity of the case since the process involves numerous stakeholders, social norms, and different points of view (Yin 2009:132). The second limitation is time; since I only had a bimester to carry out the research and the last one is the limited space, in terms of words, for this study.

## **CHAPTER 4**

### **4 Results and Discussions**

In this chapter, I will first relate Bruno's previous experiences in the programme, the strategies applied by previous teachers and consider which of these strategies had rendered the expected results and which had not, as well as the reasons for these out-comings, according to him and the teachers themselves. Next, I will explain how such results informed my decisions for enhancing the strategies that had proved useful for him and for exploring others which I thought would fulfill his needs. Finally, I will discuss which new implementations rendered a positive influence in Bruno's learning process, according to him and to evaluation results, considering also the impact these implementations had on the group as a whole.

#### **4.1 Former Experiences of NSL in the Programme**

When Bruno was first faced with institutional English requirements for graduation, he joined the programme with the sense of fear, frustration and disappointment that had developed during his previous EFL-learning experiences, which comprised secondary school, high-school and an English institute. His fears soon proved founded, since four of his six previous teachers expressed feelings of disagreement, frustration and/or confusion after having had Bruno in their classes. The other two teachers rose up to the challenge and tried to identify and incorporate resources that would help him follow the class and participate in it. These are some of the experiences of teachers and students involved in the study:

- **Technological experiences.** Recommended to each teacher by Bruno himself, the strategy most often mentioned was sending him materials in advance via email, so he would know what the contents of the following class would be and possibly be able to follow the session (Scherer and Glueckauf 2005: 133). Although all his teachers tried to provide this form of support, the variety of formats or the amount of information contained highly diminished the advantage he could have obtained from this option. Except for T1 and T2, who followed his suggestions more accurately, he mostly received scanned pages of the book or PowerPoint presentations, which JAWS<sup>®</sup> cannot read. Another drawback was the fact that teachers tend to categorize information through visual organizers, such as charts, tables or mind maps, which are rendered useless to him, since they are “visually thought” and JAWS<sup>®</sup> will not read them efficiently. He needs text, so JAWS<sup>®</sup> can read it to him, and he may, therefore, develop his own mind-organizers. Another problem he found was that some teachers provided very extensive texts. Large amounts of information are impossible for him to manage, especially if written in English, since it takes him longer to decode it on his own, and most likely, he ends up losing the core ideas. This was the case with T5, who commented “I would send Bruno the material in advance, but I believe he did not check it because he was lost in class anyway.” To this, Bruno’s comment was “the texts were too long, six or seven pages in English, I was overwhelmed and lost anyway.” This transformed the technological support into a barrier rather than an aid (Jutai and Day 2002: 107).

- **Socio-affective experiences.** Some comments expressed by four of the teachers explain and justify the feelings of inadequacy that Bruno described having felt while in class with them. About providing support according to his needs (Hallahan and Kauffman et al. 2002: 195, Miles and Singal 2010: 11, Allan 2008: 9, Ainscow and Cesar 2006: 236), Teacher 4 (T4) mentioned; “You cannot neglect all your learners’ needs to fulfill those of one student you have to concentrate on. He is extremely demanding”. On having him provide his own experience in his learning process, she mentioned “Bruno insisted on telling me what I should do, which would have demanded more work for me and making things easier for him.” (Marek 2000:2 and Guinan 1997:1). Concerning peer work, Teacher 5 (T5) stated “If students help Bruno, it is definitely to their detriment,” and added that he tended to hold his peers back since “Bruno is always the last to finish”. Bruno described how he was generally discouraged from asking for help from his peers, since most teachers felt this distracted them, and pointed out that he was once openly scolded for doing so, declaring the teacher stated “If you need help ask me, but don’t interrupt your classmates.” One of his peers, who actually never interacted with him, expressed that he felt Bruno remained behind the rest of the group, which slowed down the pace of the whole class. On the other hand, teachers 1 and 2 went out of their way trying to open paths that would allow Bruno to participate more in class (Daniels 2008: 3, Vygotsky 1997: 211). They sent him materials in advance and incorporated him during oral activities, as T2 stated: “Bruno would perform all the speaking activities the same way as everybody else, in pairs or in teams of three.” These two were the courses he expressed having felt more comfortable in (Krashen 1982: 26).

Still, these teachers knew he could not be expected to fulfill the same requirements as his peers; therefore, standards were reduced meaningfully for him so he would be able to pass. This weakening of criteria also constituted an issue for some teachers, as T5 stated “It makes no sense to me that a non-disabled student should work very hard on assignments, quizzes, exams to obtain a passing grade and then Bruno, who has done none of this, passes, too.” Despite this “help” he repeated a course.

- When listening to the teachers and to Bruno talk about these previous experiences, one can perceive a strong feeling of frustration on both parts (Marek 2000: 2 and Guinan 1997:1). Even teachers who were able to find some strategies to help him a little better express the large amount of energy and time invested in the effort. Krashen describes how the best disposition on the participant’s part is not enough to overcome the absence of proper learning conditions, a situation that will most likely generate discouragement and mental blockage, which will reinforce negative cycles (1982: 46). In this case it applies both to the student and the teachers, and the absence of conditions is also reinforced by the lack of information regarding how to adequately deal with the situation (Allan 2003: 74, Daniels and Garner 2000: 112, Rose 2010: 205). We cannot ignore that, often, lack of information tends to be replaced with misinformation (Simpson and Yinger 1985: 399). Stereotypes about blind people’s (in)abilities are extended. Clair explains the generalized view that associates the absence of sight with limitations in mental development (2003: 129). There are also further unconscious restrictions that affect all of us, such as fear of the unknown (Winters 2002). Bruno acknowledges his feelings of stress and defencelessness at facing an environment where his prime tool for safety is

removed, language, as he mentioned in the first interview. Teachers did not state their fears, but anger and frustration seeped through most of their expressions, which is only understandable, since their know-how in English teaching had been jeopardized by the presence of the unknown, which may consist in not knowing how to help a blind student, or even more, how to interact with a blind person. The general feeling of frustration and inadequacy was very clearly described by teacher 6: “I think we must be taught how to teach blind students. The institution should train teachers to this purpose.” Unaware of Bruno’s needs, teachers tended to reproduce patterns of class behaviour that impeded him further. For instance, not allowing him to interact verbally with his peers created an atmosphere of total isolation for him, since he cannot use the other most conventional forms of non-verbal language to connect with the rest of the group, eye-contact and facial expressions (Concannon 2005: 93). This isolation he experienced is, in Vygotskian terms, damaging to the learning process. Intensified by the deficits the blind have in a world designed by and for the sighted.

- **Skills development.** Bruno, as well as T1 and T2, expressed the problems he had with writing. The inconsistencies between pronunciation and spelling that characterize English, and which are burdensome to the average English learner (Wormsley et al. 1997: 216), become overwhelming for the non-sighted EFL student. Intending to develop aural and written abilities at once sets too high a demand on the student, as Bruno stated “Writing is very difficult for me; I have a lot of spelling mistakes even in Spanish”.

- **Assessment process.** The format of the summative assessment instruments is not JAWS©-friendly. Therefore, even simplified versions of the tests would turn out to be highly time- and energy-consuming for Bruno. Other forms of assessment, such as quizzes, assignments and projects (See Appendix X), were not asked from him.

To sum up, five main aspects can be drawn from previous experiences both from the teachers' and Bruno's point of view:

1. JAWS© works as a very good translator from writing to hearing if the proper programs and information arrangements are incorporated.
2. Providing Bruno with an adequate amount of information in advance — replacing images, graphs or tables for descriptions in Word© — allows him to follow the topic and structural aspects of the language during the class with higher competence.
3. Bruno can participate in oral activities with a level of performance similar to that of his peers.
4. Bruno will develop writing skills once he has gained proper mastery of aural skills.
5. Assessment regarding institution designed instruments, such as tests and quizzes, do not follow a JAWS friendly format, since they include tables and text boxes, and, therefore, need to be adapted.

#### **4.2 Adjustments Implemented in the EFL Inclusive Classroom**

Drawing from the previous experiences, two types of modifications were introduced in the class with the intention of including Bruno in its dynamics, so that he and his peers may

experience his presence as that of any other student in the group. The adjustments were targeted to the socio-affective and technological fields, and they comprised:

- **Treating him as any other student:** By not regarding him as a less able student and by expecting him to perform the same way as the rest of his peers, I trusted Bruno's difference to soon become irrelevant, bearing in mind that from the socio-cultural approach, disabilities are such only to the eye of the "normal" (Gindis 1999: 335).
- **Incorporating Collaborative and Mediation Practices:** In response to Bruno's request for working in close contact with his peers, collaborative activities became an everyday practice. The rationale behind this choice was to provide him with the opportunity to have more knowledgeable peers as mediators or to allow him to become one for others, which would promote his bonding with the rest of the group (Johnson and Johnson 1989 and Kagan 2004, Vygotsky 1978: 85).
- **Sending Materials Via Email in Advance:** Providing him with information for the following session(s) was enhanced and precise considerations were taken into account: Grammar explanations, readings, audios, exercises and activities to be worked with were edited to fit his technological and cognitive needs, i.e. the information was brief, to the point and accessible to JAWS® — Abby Fine Reader® was used for this matter. In order to achieve this, I installed the programme in my computer and verified every file. Through this process, I expected to enable him to cross the first stages of the ZPD (Vygotsky 1978: 85).
- **Using JAWS® in Class:** Although Bruno had already used JAWS® for assignments and readings in previous courses, incorporating his technological tools into the class

was put into practice. Once equipped with his resources, while his classmates read, he listened to the same information and performed the same activities as them. For example, if pairs dictated a text to one-another, Bruno would listen to the text by using JAWS© and would then repeat it to his partner. This practice allowed him to participate and be part of classroom life (Finlayson and Hammel 2009: 109).

- **Having Bruno Share His Potential, Supporting His Strengths:** In order to reduce his anxiety and increase his self-esteem and motivation (Krashen 1988: 46, Wright 2005:149, Claxton 1999: 37, Dornyei 2001: 122), I developed activities that I hoped would support his strengths, providing him with the opportunity to perform well and share his potential with his peers. To this purpose, they were asked, for instance, to develop and perform, in small groups, a radio commercial, an interview, or other aural activities, where his keen ear would be an asset (Daniels 2007: 342).
- **Creating a balance in types of input:** By providing more aural input than I usually would, the practice activities became more challenging for most students in the group, who are used to having mostly visual cues. This presented Bruno with conditions where he would naturally excel, since his hearing memory is very sharp.
- **Using E-Textbook Format:** Since, under my request, the institution had gone through the effort of obtaining the textbook in e-format, we tried to work with it specifically for reading and listening activities. Nevertheless, the textbook was in PDF format and it required a lot of editing. I therefore decided to give the whole group the opportunity to benefit from moving away from the textbook.
- **Assessing:** the definition and development of assessment criteria and strategies that would inform all stakeholders about the progress Bruno attained during this course

became a crucial issue. I expected that he would be able to fulfil the achievements set for this level as the rest of his peers, in terms of competence attained. He therefore was asked to carry out the two exams, four quizzes, four assignments, and the final project corresponding to the course (See Appendix X). The only major adjustment involved his writing skills, which — as decided by the Language Center — he will be developing once his aural skills have been consolidated. Therefore, the written section was answered orally. All his work was presented verbally, either live or audio recorded. The exams were taken, individually, with the tutor, outside the classroom, which turned out to be highly tiring and time-consuming for both.

### **4.3 Evaluation of Adjustments**

Having implemented and assessed the adequacy of the different adjustments during a sixty-hour-course, I will synthesize the perceptions provided by those involved directly or indirectly in this process, regarding the extent to which such adjustments promoted an inclusive environment and an enhanced learning experience for all. To that purpose, data obtained from summative evaluation instruments will also be included.

**4.3.1 Successful Adjustments:** According to Bruno, working in close contact with his peers helps him to understand better because it creates a more relaxed atmosphere and enhances his learning process (Daniels 2008: 3). He pointed out that peer mediation gives him the opportunity to identify his problems and to find answers to his questions in a less challenging environment. He also stated that being able to help his peers in areas where he is stronger built his self-confidence and he realised for the first time that he has nothing to fear, since all of them make mistakes and all of them can support each other in different

moments (Krashen 1988: 46). Also, having to identify his classmate's mistakes gave him further awareness of his own understanding of the language, which gave him further confidence in his capacities. Most importantly, he expressed feeling part of the group, "for the first time I'm walking out of an English course with friends and not with mere acquaintances." When asked to elaborate on this, he added, "My classmates call me to invite me for coffee or to go bike-riding, just as friends do". This is what one would expect the socio-cultural approach to learning to render. The teacher who did the video-recording for the former and intervention group lessons mentioned the difference she noticed in Bruno's participation. She pointed out how during the intervention group session she perceived a happier and more participative Bruno. Also, the third teacher who was invited to analyse the video commented that she could see Bruno as another member of the group and added that he looked obviously happy interacting with his peers (Krashen 1981: 26). Bruno was not the only one to find the mediation techniques productive. When interviewed, four of his peers' acknowledged the importance of this process. One of them stated; "In order to explain something to Bruno, I needed to have concepts clear; this forced me to focus on what I was going to explain to him. I think this was good." Also, the shift to a more balanced presence of aural input was regarded as a positive challenge, as a student mentioned; "some activities helped me to improve my ability to retain information". They mentioned having to make an unusual effort, which was regarded as constructive and fruitful. Both having received information about the class in advance and having his tools during class to obtain the same input as his peers provided Bruno with the ability to perform with the same accuracy as his classmates, so not only would he not hold his partners back, but would also help them move forward faster, which was in various

occasions the case, as a student expressed, “Being Bruno’s partner in some activities was an enriching experience, I realized that sometimes he can perform better than me,” Also, unaware that many tasks had been developed ‘attending to Bruno’s needs’, several students mentioned they had enjoyed having more interactive and productive activities, which turned out to be more comprehensive and closer to their interests than those drawn from the book. They also mentioned the high quality of products they were able to deliver. They were glad the book was left aside, as a student mentioned; “the course was less tedious without using a textbook,” which agrees with Van Lier’s statement that textbooks sometimes hinder students’ critical thinking processes (1997: 257).

Students expressed not feeling Bruno was an obstacle in their learning process but the opposite; they mentioned having become aware of the fact that blind people learn in a different way, changed their perspective of NSLs.

Having described Bruno’s performance, both from his own point of view and from that of his peers, it is important to also analyse the more objective instruments to assess his achievements. As previously mentioned, he was given the assignments and exams established for this level as achievement criteria by the syllabus. The only adjustments performed were those of changing the written part for a recorded speaking section, in contrast to his previous experiences where requirements were reduced for him. The group’s average final grade was 7.5, and Bruno’s grade was 8. We can therefore state that his performance was above average (See Appendix XI).

**4.3.2 Adjustments to be reconsidered:** First, high expectations had been placed on the e-version of the textbook but it turned out to be more a burden than an asset. Fortunately, it is

not an essential tool and I would not suggest putting too much effort into bringing it to a useful state. Second, the summative evaluation tools—exams and quizzes— need further adjustment, since they are still cumbersome to use. It took Bruno twice the time it took his classmates to finish the mid-term and final exams. The desirable situation would be for Bruno to answer his tests on his own within the same time frame given to his peers.

## **CHAPTER 5**

### **5 Conclusions and Recommendations**

In this chapter, I will present the conclusions of the inquiry, initially regarding the technological strategies implemented, and then the socio-affective ones. As a wrap-up, I will offer some recommendations that will hopefully help teachers in this institution who may have the opportunity to work with visually disabled students in the future.

#### **5.1 Conclusions**

The data analysis provided me with a meaningful background that was crucial to develop a deeper understanding of the problems faced both by the non-sighted learner and the teacher in the EFL classroom. From these interpretations, I was able to identify conditions that needed to be improved. Next, I will deal with the conclusions of this study by taking as reference the research question that guided this inquiry:

Which technological and socio-affective strategies tend to render a positive influence in the learning process of a blind student in an EFL context and which ones tend to hinder it?

##### **5.1.1 The Technological Strategies**

- Mastery of JAWS© on Bruno's part was crucial for all the adjustments, since it was his expertise that guided the different modifications implemented
- Providing in advance core information to be dealt with in class proved essential to the student's performance, since it allowed him to prepare and be able to follow presentations, explanations and/or other activities during the session(s).

- Formatting all files in WORD© so that they may be decoded by JAWS© allows NSLs to obtain the most profit from the information provided.
- Avoiding the use of graphics or any kind of element intended to visually organise the information and providing instead descriptions of hierarchies and relationships between content elements allows NSLs to build their own mental representations of such contents. Bruno made me aware of this fact, which constituted an especially interesting challenge for me as a teacher, since I realized I have long tried to convey content in the most succinct and meaningful way, regarding visual organizers as the optimal tool of such representations. Providing him with explanations meant a backward process for me.
- Providing simple, focused and accurate explanations, if necessary in L1, is crucial to help students' understanding. Instructions or structure explanations sent in advance should not constitute another barrier to be overcome by the student. Teachers must remain aware that use of L2 tends to be troublesome for the student. Also, wordy texts or very extensive descriptions are often confusing for them.
- Regarding the blind student's computer as an essential tool for them in and out of class furnishes the student with an essential decoding instrument. Teachers should not only allow, but promote and optimize its use in class whenever it is relevant.

### 5.1.2 The Socio-affective Strategies

- Assuring proper mastery of technological abilities and tools on the NSL's part in order to level the ground and allow them to work hand in hand with their peers.
- Building activities outside the textbook and/or transcribing the meaningful information in the book to WORD© so NSLs will not be left out of the activity being performed.
- Introducing activities with auditory input or with written input that NSLs may transform into aural through JAWS© will assure NSL's incorporation into the class dynamics.
- Promoting small group work to provide both NSLs and their peers with the opportunity for personal interaction that will reduce fears of the unknown. These settings also contribute to the development of self and mutual esteem by providing opportunities for giving and receiving support from one another, which fosters an environment of respect, cooperation and confidence.
- Fostering collaboration and mediation practices among students that may promote social, academic and intellectual development. When students work towards a common goal, which can be as simple as solving an exercise, and are allowed to face each one's strengths and weaknesses in a respectful environment, mutual support tends to build up. Mediation processes among them were seen to emerge naturally as the teacher stayed in the background to reinforce such student behavior. Their understanding of the subject was made sounder as they

tried to provide answers for their partners' questions. They had to bring into awareness how they had come to such notions in order to share them with the others. Sharing this process, which will render positive development to any student, is especially meaningful to the disabled one. Moreover, this collaborative practice, will allow NSLs to work as mediators with the abilities they own as well as be mediated by their peers in the abilities they have not fully developed yet. This mediation is supposed to be carried out among all students and not only with the NSLs. Students specify in the interviews the main benefit of mediating; they explain the sense it gives to the newly acquired knowledge when having to help a peer to build these new concepts and how this gives them the feeling of mastery when explaining to somebody else. In general, this mediation work is a proposal for any learning process although it is especially meaningful when referring to a disabled student.

- Postponing the development of writing skills until the oral and auditory ones have been consolidated. This decision allowed Bruno to focus his energy on developing auditory skills, which, according to him, meaningfully increased his listening comprehension of the target language and reduced his anxiety.

## **5.2 Recommendations**

The main objective of this paper is to put forward a set of suggestions regarding the presence of future NSLs in the programme. These are:

- that the Language Centre of the institution provide teachers with courses which may sensitize them to NSLs' needs and abilities. In such spaces, NSLs will be able to share their learning experiences and put forward the strategies that have best worked for them. It is essential that they be heard and taken into account when decisions are being made that concern them directly.
- that NSLs who enter the programme have proper command of the necessary technological tools required for working in and out of class, so such tools may simplify their performance and not become a further burden.
- that teachers have proper command of the necessary technological tools, so they may best help their students and remain aware of the limitations such tools bring, as mentioned in chapter 4, in the technological experiences section.
- that the Language Centre develop a collection of activities and recommendations in the form of a handbook promoting inclusion of NSLs suitable for the different levels within the programme so that the teacher in turn does not have to develop all the material. Trying to design and develop the necessary materials and activities for the first time demands great effort. Therefore, keeping a variety of ideas provided by teachers through different levels would make work easier and more comprehensive for everyone involved.
- that teachers move away from the textbook so that NSLs can fully participate in all the activities as seen in the Successful Adjustments Section in chapter 4.

Bruno reported that those activities out of the book were productive and interesting.

- that teachers remain aware of the fact that graphic organizers such as tables and mind maps are not helpful for NSLs. It is true that they give sighted people a sense of visual organization; however they are more an obstacle for NSLs than an advantage.
- that teachers become aware of the use of other senses in class, not depending on the visual for most of the activities. If we know that humans learn through a variety of intelligences (Gardner 2006: 6), my invitation is for us to become more sensitive to stimulating other senses. It is in all students' benefit, not necessarily the blind, to receive more auditory stimulus. It seems important to emphasize here that we learn and understand with all our body and not just with our vision. Therefore, making use of all students' senses will favor everyone in the classroom, as pointed out in chapter 4 in the successful adjustments section.

Nowadays, learning English as a foreign language is a need for most undergraduate students and providing them with a context of equality is not an easy task, however it is very important if we want them to succeed in the process. The most meaningful learning experience I draw out of this study is; understanding that people with different abilities have their own ways of coping with life. I took back Vygosty's remark when he mentions that a disability is just such in the eyes of others (Gindis 1999: 335). We tend to feel superior because we believe that we have senses that others do not possess and we tend to perceive these people with certain disabilities as

incapable simply because they do not communicate in life with the same tools we use. To conclude, I believe it would be important to give ourselves, sighted people, a chance to close our eyes and take the world in through our other senses.

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## APPENDIX I

### *Questionnaire Assistive Technology*

Each word or phrase below describes how using assistive technology (AT) may affect you. For each word or phrase, put an "X" in the appropriate box to show how you are affected by using **JAWS® for Windows**.

	DECREASES	-3	-2	-1	0	1	2	3	INCREASES
1. competence		<input type="checkbox"/>							
2. happiness		<input type="checkbox"/>							
3. independence		<input type="checkbox"/>							
4. adequacy		<input type="checkbox"/>							
5. efficiency		<input type="checkbox"/>							
6. self-esteem		<input type="checkbox"/>							
7. productivity		<input type="checkbox"/>							
8. security		<input type="checkbox"/>							
9. usefulness		<input type="checkbox"/>							
10. self-confidence		<input type="checkbox"/>							
11. expertise		<input type="checkbox"/>							
12. skillfulness		<input type="checkbox"/>							
13. well-being		<input type="checkbox"/>							
14. capability		<input type="checkbox"/>							
15. quality of life		<input type="checkbox"/>							
16. performance		<input type="checkbox"/>							
17. sense of power		<input type="checkbox"/>							
18. sense of control		<input type="checkbox"/>							
19. willingness to take chances		<input type="checkbox"/>							
20. ability to participate		<input type="checkbox"/>							
21. eagerness to try new things		<input type="checkbox"/>							
22. ability to adapt to class activities		<input type="checkbox"/>							
23. confusion		<input type="checkbox"/>							
24. frustration		<input type="checkbox"/>							
25. embarrassment		<input type="checkbox"/>							

## APPENDIX II

### *Samples of Back-Translation*

**Teacher 4:**

Bruno me decía, “mejor dime así, mejor hazme esto” y eran 80 sugerencias de cómo podía yo trabajar más para que a él se le facilitaran las cosas.

**Translation:**

*Bruno would tell me, “it would be better if you told me like this, why don’t you do this for me?” and there were 80 suggestions as to how I could work more to make things easier for him.*

**Back-translation:**

Bruno me decía, deberías de hacer esto así, mejor deberías de hacer esto y eran como 80 sugerencias de cómo podía yo trabajar más para facilitarle las cosas a él.

---

**Bruno:** La información que me mandaban era demasiada, 7 ù 8 páginas en inglés, me sentía perdido de cualquier forma.

**Translation:**

*The information they would send me was too much, 7 or 8 pages in English, I felt lost anyway.*

**Back-translation:**

La información que me mandaban era demasiada, 7 ù 8 páginas en inglés, me sentía perdido de cualquier forma.

## APPENDIX III

### *Semi-structured Interview Used with Former Teachers*

1. What was your experience working with a visually disabled student like?
2. How did you feel?
3. What difficulties did you find?
4. What do you think went well for you and for him?
5. What was the dynamic you perceived?
6. How would you feel if you were the blind student?
7. Some people think that students with disabilities should not be included in regular groups. What do you think?
8. Would you like to add anything else?

## APPENDIX IV

### *Semi-structured Interview Used with Former Peers*

1. What was your experience of being in the same group as a visually disabled student like?
2. How did you feel?
3. What was the dynamic you perceived?
4. Did you have the opportunity to work with him? What was it like? How did you feel?
5. How would you feel if you were the blind student?
6. Some people think that students with disabilities should not be included in regular groups. What do you think?
7. Would you like to add anything else?

## APPENDIX V

### *Semi-structured Interview Used with Intervention Group Peers*

1. Had you been in the same class with Bruno before?
2. Tell me about this experience; what happened? What was his attitude like? What was the teacher's attitude like? What kind of activities did you do?
3. What was the environment in the class like? How did you feel?
4. Did you feel your peers wanted to work with him?
5. Did you ever work with him in this class?
6. What was your experience like?
7. What did you like and what didn't you like about it?
8. What do you think of the material we used to work with him?
9. Would you like to add anything else?

## APPENDIX VI

### *Questionnaire Completed by Intervention Group Peers*

Please, think about what you experienced in this English course; Bruno's presence, the way activities were organized and the way you felt. This information will be used for research purposes. Your identity will remain anonymous.

#### **I. Answer the following questions:**

1. Do you like working in pairs or in small groups? Why?

---

2. Do you feel you can help your peers or they can help you when working in pairs or in small groups?

---

3. In what situation do you feel you learn better: working with the whole group, in small groups, in pairs or individually. Explain \_\_\_\_\_

---

4. How did you feel the atmosphere in the classroom? Explain \_\_\_\_\_

---

5. Did you ever work with Bruno? If so, how many times?

---

6. What was your experience? Explain \_\_\_\_\_

---

7. What was your first impression when you realized you were going to have a visually disabled learner as a peer? \_\_\_\_\_

---

8. Did you change your perception of visually disabled students after having Bruno as peer?

Explain \_\_\_\_\_

\_\_\_\_\_

9. Do you consider that visually disabled students should be included in regular groups?

Explain \_\_\_\_\_

10. Do you consider that visually disabled students should be excluded from some activities

during class? Explain \_\_\_\_\_

11. Do you consider Bruno capable of performing the same activities as the rest of the

group? Explain \_\_\_\_\_

12. Did you feel at any moment that the teacher paid more attention to Bruno than the rest

of the group? Explain \_\_\_\_\_

13. Did you perceive any adjustments in some activities to make them easier for Bruno?

Explain \_\_\_\_\_

14. If your answer to the previous question was affirmative, do you consider such

adjustments affected your performance in any way? Explain \_\_\_\_\_

\_\_\_\_\_

15. Do you feel you obtained any kind of learning after the experience of having a visually

disabled learner in your group? Explain \_\_\_\_\_

**Thanks for taking the time to answer this questionnaire!**

MARTHA MORENO ([morna@iteso.mx](mailto:morna@iteso.mx))

Would you be interested in participating in an interview:  YES  NO

Contact. \_\_\_\_\_

\_\_\_\_\_

## APPENDIX VII

### Questionnaire Completed by NSL

Please, think about the environment you perceived in your English class this bimester. Next, answer the following questions honestly. The information you provide will be used for research purposes. Your identity will remain anonymous.

PCI levels you have taken    1       2       3       4       5       6       7       8

***1. This section of the questionnaire relates to your perception of collaboration in the classroom. Please choose a number from the following scale to indicate your perception and enter it in the box next to each statement.***

1	2	3	4	5
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree

1.  I prefer *personal* interaction with other students during class time.
2.  I prefer to work in pairs.
3.  I prefer to work in teams.
4.  I think that the maximum team-group size should be four.
5.  I feel happy when working in pairs.
6.  I feel happy when working in small groups.
7.  Working in pairs helps me understand contents better.
8.  Working in small groups helps me understand contents better.
9.  I perceive a more relaxed *classroom* atmosphere when working in pairs or groups.
10.  I work better in a group than by myself.
11.  I learn more working in a group.

- 12.  Working in groups enhances *my* communicative skills.
- 13.  I think Group work enables stronger learners to help weaker students.
- 14.  I prefer assistive technology over peers' assistance.
- 15.  Working in groups wastes time.
- 16.  Working in pairs or teams should continue.
- 17.  I felt as part of the group.
- 18.  I felt accepted by my peers.
- 19.  I was able to perform the different activities.

***II. This section of the questionnaire relates to your perception of previous experiences in your English courses compared to this last one. Answer the following questions:***

1. Did you find any differences between your previous courses and this one? Name them.

---

2. How was the classroom environment in your previous courses different from this one?

---

3. Aspects I liked about my previous experiences that I have not perceived in this course:

---

4. Aspects I did not like about my previous experiences that I still perceive in this course:

---

5. Some tools that I have used in this course that I did not apply in previous courses:

---

***III. This section of the questionnaire relates to your perception of your former and present peers. Complete the sentences.***

1. What I like about my present peers is \_\_\_\_\_

---

2. What I liked about my former peers was \_\_\_\_\_  
\_\_\_\_\_

3. What I dislike about my present peers is \_\_\_\_\_  
\_\_\_\_\_

4. What I disliked about my former peers was \_\_\_\_\_  
\_\_\_\_\_

5. I think that when my present peers are working with me, they \_\_\_\_\_  
\_\_\_\_\_

6. I think that when my former peers worked with me, they \_\_\_\_\_  
\_\_\_\_\_

7. When I am working in pairs, I feel \_\_\_\_\_  
\_\_\_\_\_

8. When I work in teams I feel \_\_\_\_\_  
\_\_\_\_\_

9. When my peers are laughing and I do not understand I \_\_\_\_\_  
\_\_\_\_\_

10. I need someone close to me when \_\_\_\_\_  
\_\_\_\_\_

11. I prefer to be alone when \_\_\_\_\_  
\_\_\_\_\_

***IV. This section of the questionnaire relates to your perception of the tools and material you are working with in your present course and the tools and material you worked with in your previous courses. Answer the following questions.***

1. How do you feel about the present work load? \_\_\_\_\_  
\_\_\_\_\_

2. How did you feel about the work load in previous courses? \_\_\_\_\_  
\_\_\_\_\_

3. How do you feel about using assistive technology in this course? \_\_\_\_\_

---

4. How did you feel about using assistive technology in previous courses? \_\_\_\_\_

---

5. How do you feel about using assistive technology to complete your tasks for this course at home? \_\_\_\_\_

---

6. How did you feel about using assistive technology to complete your tasks at home in your previous courses? \_\_\_\_\_

---

7. What do you think about the material being used for this course? \_\_\_\_\_

---

8. What do you think about the material used for previous courses? \_\_\_\_\_

---

## APPENDIX VIII

### *NSL's Interview before the Intervention Course*

1. Tell me about your experiences at school. How did you learn how to read and write?
2. Tell me about your experiences with English learning before enrolling in this programme. Where did you study? How long did you study? What were your classes like? How did you feel?
3. Now tell me about your experiences in this programme. When did you start? How many levels have you taken? How do you feel? How do you feel with your teachers and your peers? What do you think has helped you to learn better? What learning strategies do you think have been appropriate for you? What do you think you need?
4. Tell me about your tutoring sessions in the self-access centre. How did you feel? Do you think they work for you? How?
5. How do you think the English language will be relevant in your professional life?
6. Would you like to add anything?

## APPENDIX IX

### *NSL's Interview after the Intervention Course*

1. Which course of this programme has been more difficult for you? Why?
2. Compare this course (the most difficult) with the course you have just finished.
3. Which tools of the ones we used in this last course were more useful for you?
4. Which tools of the ones we used in this last course were useless for you?
5. What material that we used in this course was more useful for you?
6. What material that we used in this course was less useful for you?
7. How comfortable do you think your peers felt while working with you?
8. How comfortable do you think the teacher felt while having you in class and work with you?

## **APPENDIX X**

### ***Assessment Elements***

***(according to the institution's coordination)***

#### **EXAMS**

Exams evaluate achievement, proficiency, progress. We have quick-check type exams that allow for assessment of both content and skills, as described in the objectives of the programme. These are generated by coordination.

#### **ASSIGNMENTS**

Assignments reflect work, and most importantly: *the learning process*. Assignments should reflect the two dimensions of the work carried out during the course: work on content and work on skills. Assignments will include a mix or variety of the different skills and the contents of the level and the final product of each assignment will be a written text.

#### **QUIZZES**

Quizzes evaluate progress; they give an insight into how the contents described in the new programme are being understood. Both teachers and students should use the information provided by the results of quizzes to draw plans of action to re-teach, re-study, re-explain content. Teachers are responsible for developing their own quizzes. At least one should be set up on Moodle.

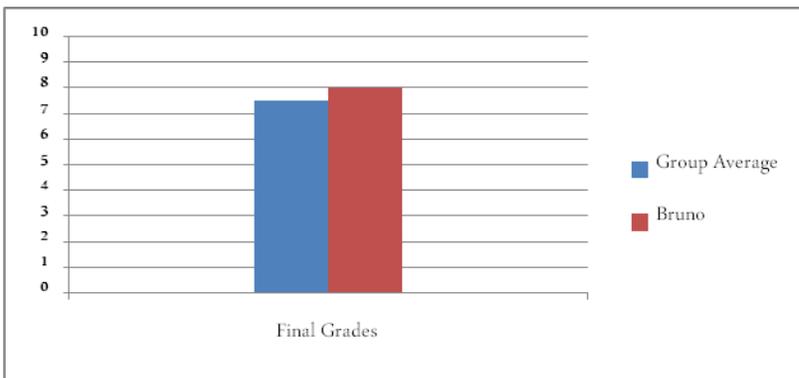
#### **PROJECT**

The idea of the project is to have students put into practice all the skills, and to build up a piece of writing by the midterm, that will then be used as the basis for an oral presentation towards the end of the course. The grade will be awarded both for the work on the process of creating the project as well as the final product itself following the oral and written work evaluation rubrics set by the PCI programme. It is suggested that the final oral presentations are distributed over a series of classes and not done altogether in the same class. The project should be worked on from the beginning of the course.

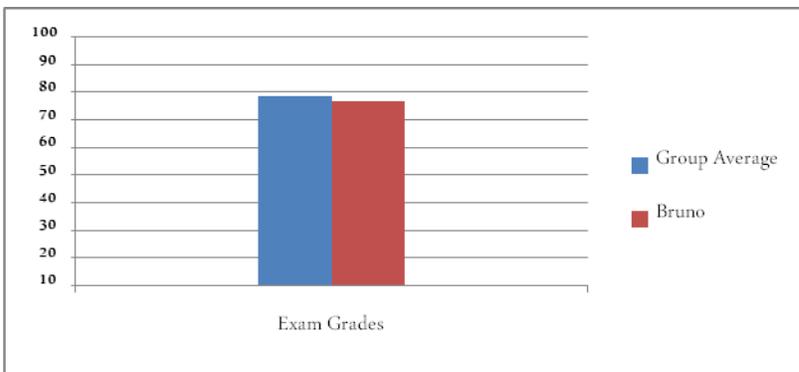
## APPENDIX XI

### *NSL's Grades Compared to the Intervention Group Average*

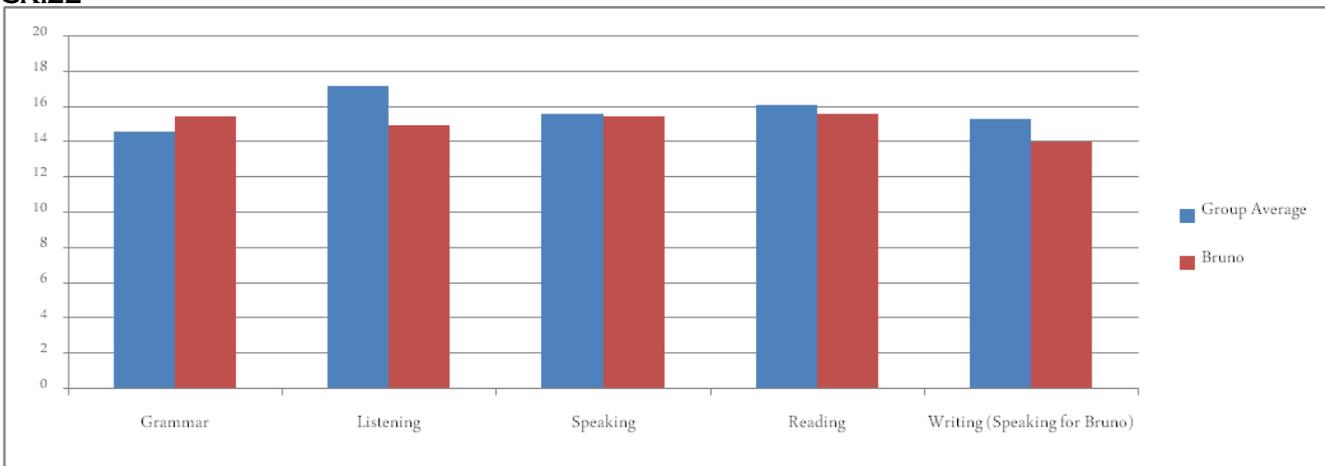
#### FINAL GRADES



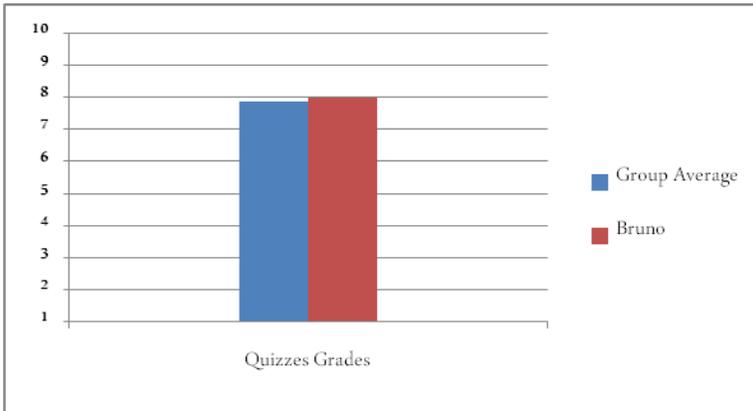
#### EXAM GRADES



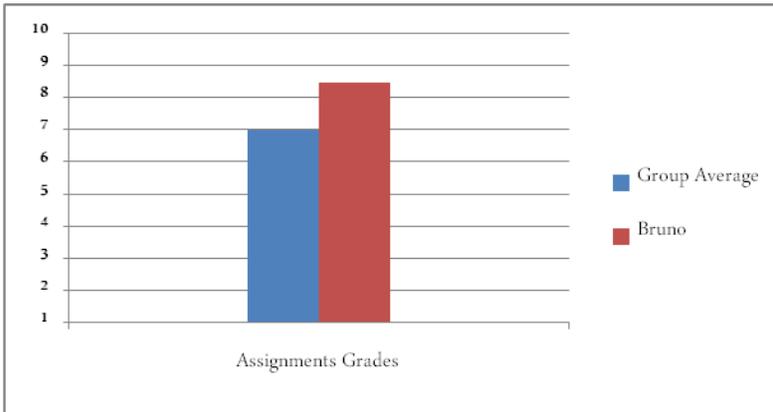
#### EXAM GRADES BY SKILL



## QUIZZES GRADES



## ASSIGNMENTS GRADES



## PROJECT GRADES

