Enhancing EFL teacher trainees’ cognition through Systemic Theoretical Instruction (STI)

Magnolia Negrete Cetina

A thesis submitted for the degree of Doctor of Philosophy

Department of Language and Linguistics

University of Essex

January 2019

Copyright © Magnolia Negrete Cetina 2019
A la memoria de mis padres
Raúl y Golli
con todo mi amor
Vygotsky’s Sociocultural Theory (SCT) proposes that human mental functioning is fundamentally a mediated process that is organized by cultural artefacts, language being one of the primary means of mediation (Lantolf & Thorne, 2007). Based on SCT, Gal’perin (1969) conceived Systemic Theoretical Instruction (STI), a developmental theory that proposes ways of developing cognition through three key phases: 1) Materialization; 2) Verbal Action; and 3) Internalization.

Given that EFL teachers must possess a solid level of knowledge (linguistic, metalinguistic and pedagogical) and that there is no exact correspondence of the forms of tense/aspect in English and Spanish, these grammatical features seem to be particularly difficult to attain for learners of L1 Spanish. Thus, following a methodological design of mixed methods (quantitative and qualitative), this study aimed to investigate the extent to which intervention with STI could contribute in enhancing teacher trainees’ cognition of these features.

The study was carried out at the University of Quintana Roo in México with a group of 50 participants (teacher trainees) during 8 weeks and distributed throughout 12 sessions. Data collection included pre, post and delayed testing and participants were divided into control and experimental groups. Intervention consisted of training based on STI (including its three phases) aiming to compare the effectiveness of this with Traditional Instruction in teaching the concepts of tense and aspect in English.

Results showed that STI contributed to the development of metalinguistic knowledge which eventually leads to internalisation. Having received instruction on the basis of ‘minimal-conceptual-units’, materialization and verbalisation contributed to fostering cognitive development (MLK and pedagogical thinking) among teacher trainees. Microgenesis affordances resulting from verbalisation revealed that collaborative languaging activated the effective use of semiotic tools (i.e. discourse markers, reasoning markers, play and metalanguage). This served to deploy mechanisms enabling joint attention and intersubjectivity which allowed learners to attain self and other regulation and ultimately internalization of the concepts of tense and aspect.
ACKNOWLEDGEMENTS

I would like to start acknowledging to our students from the University of Quintana Roo that participated in this study; without their commitment it might not have been possible to achieve this study. I am also grateful to those teachers that throughout the years have been role models for me and that inspired me to come all the way to achieve this goal, thank you.

My enormous gratitude goes to my Supervisor Dr. Adela Gánem Gutiérrez who introduced me to the fascinating world of Sociocultural Theory. You guided every step of my way with patience and dedication. Even in the most difficult moments of this quest, you were always there for me. Thank you from the bottom of my heart!

To my father Raúl and my mother Golli who always taught me that dreams come true when we work for them. To my brothers Raúl and Marco Polo, and my sister Larissa who have always supported me in everything always with their hearts.

To my husband Rony, my partner and companion, for his love and support always cheering me up to keep on. And to the sunshine of our lives, to our daughter Gollita who has become the most powerful moving force we could have ever imagined was going to complement our family. Thank you my love for your patience, now mommy is all yours.

Thank God for having allowed me to accomplish this personal goal, Amén.
# TABLE OF CONTENTS

ABSTRACT ......................................................................................................................... i

ACKNOWLEDGEMENTS ................................................................................................. ii

TABLE OF CONTENTS .................................................................................................. iii

LIST OF FIGURES ........................................................................................................ v

LIST OF TABLES ............................................................................................................. vi

Chapter 1. Introduction .................................................................................................. 1
   1.1. Overview of the study ......................................................................................... 1
   1.2. Research Questions .......................................................................................... 2
   1.3. The theoretical underpinnings of SCT and STI leading the study ...................... 2
   1.4. The importance of implementing STI with teacher trainees ............................... 3
   1.5. Structure of the thesis ....................................................................................... 4

Chapter 2. Literature Review ....................................................................................... 6
   2.1. The nature of EFL Teachers´ cognition and its types of knowledge............... 7
       2.1.1. Metalinguistic knowledge .......................................................................... 8
       2.1.2. Pedagogical knowledge .......................................................................... 10
       2.1.3. Practical knowledge ............................................................................... 11
   2.2. Sociocultural Theory ......................................................................................... 13
       2.2.1. The Nature of Knowledge ........................................................................ 14
       2.2.2. The Zone of Proximal Development (ZPD) ............................................ 15
       2.2.3. Mediation ................................................................................................ 16
       2.2.4. Interaction, Verbalisation, Languaging and Collaborative Dialogue ........ 19
   2.3. Systemic Theoretical Instruction (STI) .............................................................. 21
       2.3.1. The Dialectical Unity of Teaching/Learning ........................................... 21
       2.3.2. Mental Action and its levels of abstraction ............................................ 22
       2.3.3. The Phases of the Process of STI Implementation .................................. 23
   2.4. Tense and Aspect ............................................................................................... 29
       2.4.1. The Classical Pedagogic Perspective ...................................................... 29
       2.4.2. Cognitive Linguistics Perspective on Tense and Aspect ....................... 33
       2.4.3. Challenges for L1 Spanish speakers learning L2 English ....................... 39
2.4.4. The current approach for teaching tense and aspect in the context of UQROO .......................................................... 42
2.4.5. Current research on STI/CBI for L2 learning .......................................................... 44

Chapter 3. Methodology ........................................................................................................ 54
Introduction .......................................................................................................................... 54
3.1. Research Design: Rationale ......................................................................................... 54
3.2. The study ....................................................................................................................... 56
  3.2.1. Context ...................................................................................................................... 56
  3.2.2. Participants .............................................................................................................. 58
  3.2.3. Instrumentation ....................................................................................................... 61
  3.2.4. Procedures for Data Collection .............................................................................. 76
  3.2.5. Procedures for Data Analysis ................................................................................. 84

Chapter 4. Results and Discussion ....................................................................................... 101
Introduction .......................................................................................................................... 101
4.1. Results RQ1 and RQ2 ................................................................................................... 101
  4.1.1. RQ1. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ linguistic knowledge (MLK and language use) regarding aspectual distinctions in English (Results). ........................................ 102
  4.1.2. RQ2. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ ability to apply linguistic knowledge to pedagogical practice (Results). ......................................................................................... 110
4.2. Discussion RQ1 and RQ2 .......................................................................................... 125
  4.2.1. RQ1. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ linguistic knowledge (MLK and language use) regarding aspectual distinctions in English. ................................................................. 126
  4.2.2. RQ2. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ ability to apply linguistic knowledge to pedagogical practice. 134
4.3. RQ3. What insights into STI can be derived from a case study approach to languaging? The case of the top scorers (Results and Discussion) ................................. 157
  4.3.1. Comparison between the top scorers from control and experimental groups: Language in Use test, Metalinguistic Knowledge test, Awareness Interview, Lesson Plan scores; type and number of Languaging episodes ............................................................................ 159
  4.3.2. A case study approach to languaging: Specific mechanisms activated during interaction .................................................................................................................. 166
Chapter 5. Conclusions

Introduction

5.1. Summary of Findings and Pedagogical Implications

5.1.1. The potential effectiveness of STI to enhance metalinguistic knowledge

5.1.2. The potential effectiveness of STI to enhance pedagogical practice

5.1.3. STI and verbalisation: Microgenesis affordances

5.2. Limitations of the study and recommendations for further research

Bibliography

Appendixes

Appendix 1. Bachelors in English Language Programme layout

Appendix 2. Teacher’s manual Grammar Rules

Appendix 3. Grammar Exercises (snap-shot & dialogs)

Appendix 4. Consent form

Appendix 5. Biodata Questionnaire

Appendix 6. Oxford Placement Test

Appendix 7. MLK Test

Appendix 8. Language in Use Test

Appendix 9. Tutorial SCOBAs Experimental Group

Appendix 11. Tutorial Traditional Instruction Control Group

Appendix 12. Oxford Placement Test Answer Key

Appendix 13. Awareness Interview Example

Appendix 14. Communicated Thinking working with SCOBAs

Appendix 15. Communicated Thinking working with SCOBAs

LIST OF FIGURES

Figure 1. Example of SCOBAs from (Yáñez-Prieto, 2008)

Figure 2. Perception and Conception (Reif, 2010)

Figure 3. States and viewing scope aspect (Reif, 2010)

Figure 4. Sequential and Summary scanning (Reif, 2010)

Figure 5. Boundedness in Space and Time (Reif, 2010)

Figure 6 Example of MLK test item

Figure 7 Examples of slides of the Control tutorial

Figure 8 Examples of slides containing the SCOBAs of the experimental group
Figure 9 Examples of TI materials for participants to work in pairs (Control Tutorial slides 29 & 31) ................................................................. 82
Figure 10 Examples of STI materials for participants to work in pairs (Experimental Tutorial slides 7 & 8) ................................................................. 82
Figure 11 Participants’ performance on MLK test ................................................................. 104
Figure 12: Participants’ Performance on Language in Use test (N=50) ................................. 105
Figure 13: Participants’ performance on MLK test per level .................................................. 109
Figure 14: Participants’ performance on language use per level ........................................... 110

LIST OF TABLES

Table 1. Tenses and Aspect in English .................................................................................. 31
Table 2. Distribution of Participants ................................................................................... 58
Table 3: Overview of Data Collection Schedule ................................................................. 78
Table 4: Scoring example of MLK test .................................................................................. 86
Table 5: Scoring System for Awareness Interviews .............................................................. 88
Table 6: Awareness Interview with Answers and Scoring Scheme ....................................... 88
Table 7: Examples of Responses of Awareness Interviews ................................................... 90
Table 8: Rubric for Scoring the Lesson Plan .......................................................................... 92
Table 9: Example of Lesson Plan marked with rubric included ........................................... 93
Table 10: Languaging Episodes (definitions) ......................................................................... 94
Table 11: Example of Languaging Episodes .......................................................................... 95
Table 12: L2 learners’ proficiency level by treatment group (N=50) ...................................... 102
Table 13: Descriptive statistics for the MLK test (N=50) ....................................................... 102
Table 14: Descriptive Statistics Language in use Tests (N=50) ............................................ 104
Table 15: Descriptive statistics for the MLK test for Semester 5 (N=20) ............................. 106
Table 16: Descriptive statistics for Language in Use for Semester 5 (N=20) ....................... 106
Table 17: Descriptive statistics for the MLK test for Semester 7 (N=17) ............................. 107
Table 18: Descriptive statistics for the Language in Use test for Semester 7 (N=17) .......... 107
Table 19: Descriptive statistics for the MLK test for Semester 9 (N=13) ............................. 108
Table 20: Descriptive statistics for the Language in Use test for Semester 9 (N=13) ......... 108
Table 21: Descriptive Statistics for Awareness Interviews (N=50) ....................................... 111
Table 22: Excerpts from Awareness Interviews ................................................................. 112
Table 23: Descriptive statistics for Lesson Plans MLK (N=50) ............................................ 115
Table 24: Descriptive statistics for Lesson Plans PDK (N= 50) ............................................ 115
Table 25: Descriptive Statistics for Languaging Episodes (N total = 49) ............................ 116
Table 26: Descriptive statistics for the MREs and PREs by semester (N total = 49) . . 117
Table 27: Mann-Whitney test results on MREs and PREs per level ..................................... 118
Table 28: Metalinguistic Related Episodes (MREs) .............................................................. 121
Table 29: Pedagogically Related Episodes (PREs) ............................................................... 124
Table 30: Excerpts from Responses of Awareness Interviews ............................................ 136
Table 31. Awareness Interview. Question 2 excerpts ............................................. 136
Table 32. Awareness Interview. Question 3 excerpts ............................................. 138
Table 33: Metalinguistic Related Episodes (MREs) .................................................. 151
Table 34: Pedagogically Related Episodes (PREs) .................................................... 156
Table 35: Comparative table of LiU per case......................................................... 159
Table 36: Comparative table of MLK scores per case ............................................. 160
Table 37: Comparative table of Awareness Interview scores per case .................... 161
Table 38: Comparative table of Awareness Interview responses per case .............. 163
Table 39: Comparative table of Lesson Plan scores per case................................. 164
Table 40: Comparative table of Languaging episodes scores per case .................... 165
Table 41: Comparative table of Languaging episodes during lesson plan session ...... 165
Chapter 1. Introduction

This chapter outlines the contents of this thesis and provides an overall idea of the study and its aims. In the following sections I will briefly describe the research project and how it was conducted. The various sections relate to the methodological design, research questions, the key Sociocultural theory constructs, and the importance of implementing STI among English as a Foreign Language (EFL) teacher trainees.

1.1. Overview of the study

The present study is framed within Vygotsky’s Sociocultural Theory of mind, (SCT) which proposes that human mental functioning is fundamentally a mediated process that is organised by cultural artefacts, language being one of the primary means of mediation (Lantolf & Thorne, 2007). Encompassed within SCT the pedagogical approach of Systemic Theoretical Instruction (STI) proposed by Piotr Gal’perin (Arievitch & Haenen, 2005) led the theoretical framework for this study. In this, Gal’perin proposes ways of “materializing conceptual knowledge, so it can be appropriated by learners and used to mediate their performance in goal directed activity” (Lantolf & Poehner, 2014, p. 3). Thus, we set out to investigate the extent to which a group of EFL teacher trainees at university level in Mexico could have their cognition (particularly metalinguistic knowledge –regarding the concepts of tense and aspect) enhanced through STI.

50 participants took part in the study using a mixed methods methodological design which included both quantitative and qualitative components. The study was implemented during 8 weeks and distributed into 12 sessions. Data collection included pre, post and delayed testing. Participants were divided into control and experimental groups for intervention. The ultimate goal was to compare the effectiveness of instruction based on STI, as opposed to Traditional Instruction on the concepts of tense and aspect in English.
1.2. Research Questions

The following research questions provided the foundations of the study:

1. Is STI more effective than TI for enhancing EFL trainee teachers’ linguistic knowledge (metalinguistic knowledge and language use) regarding the aspectual distinctions conveyed by simple past, past continuous and present perfect in English?

2. Is STI more effective than TI for enhancing EFL trainee teachers’ ability to apply linguistic knowledge to pedagogical thinking?

3. What insights into STI can be derived from a case study approach to languaging? The case of the top scorers.

1.3. The theoretical underpinnings of SCT and STI leading the study

One key principle in Vygotsky’s SCT is that knowledge is not exclusively created in the mind, but instead, it is the result of human social interaction with the environment (Vygotsky, 1986). “Language use, organization, and structure are the primary means of mediation generating developmental processes through participation in cultural or linguistic settings, family life, group interaction, instructional contexts” (Lantolf & Thorne, 2007, p. 197). Thus, the most important forms of human cognitive activity develop through interaction within these social and material environments (Lantolf & Thorne, 2007, p. 198). Within mediation as the ultimate means of connecting and developing social and mental activity STI emerges as a developmental pedagogical approach proposing an alternative to develop human knowledge, e.g. teacher trainees’ cognition from a sociocultural perspective.

Gal’perin (1969) advocated that teaching-learning necessarily implied some type of action directed at specific objects in the service of a goal and specific objectives and these can be achieved with support at different levels of abstraction: material/materialized, perceptual, verbal and mental (Arievitch & Haenen, 2005; Haenen, 2001 in Lantolf & Poehner, 2014, p. 61).
Hence, the central tenets of STI as conceived by Gal’perin consisted of: Phase 1) the materialization stage, i.e. working with SCOBAS (Schema of a Complete Orienting Basis of an Action). Phase 2) Verbal Action, i.e. ´dialogic thinking´ (self-talk) and ´communicated thinking´ (collaborative talk). Phase 3) Inner Speech, i.e. understanding and internalisation of the concept. These three phases comprise the whole cycle of STI and were the ones my study implemented to teach the concepts of tense and aspect during intervention.

1.4. The importance of implementing STI with teacher trainees

Available studies (see Borg, 2009; Cross, 2010; Benson, 2004; Gan, 2013) as well as empirical evidence gathered from personal experience in the context of study, suggests the need to enhance EFL teacher education particularly regarding metalinguistic knowledge and pedagogical knowledge. In the particular case of Spanish and English there is not necessarily an exact correspondence for each one of the forms of tense/aspect in both languages to allow them to be taught straight forwardly. Potential language teachers need to have a solid basis of both metalinguistic and pedagogical knowledge. It is particularly important for teachers to possess a strong explicit knowledge of language and how it functions as this seems to be strongly related to L2 performance (Roehr-Brackin, 2018).

In this context, STI could be a promising innovative pedagogical treatment to be implemented as an alternative to current practice in EFL teacher education in Mexico to teach concepts such as tense and aspect.

Previous studies conducted on the premises of SCT and STI have explored the implementation of these approaches to tackle diverse topics and various features of grammars in various languages i.e., Spanish, English, French, Japanese, German, Catalán, and artificial languages with promising outcomes for the field of language teaching (see Negueruela-Azarola, 2003; Negueruela-Azarola & Lantolf, 2006; García, 2012; 2017; Gánem-Gutiérrez & Gilmore, 2018; Gánem-Gutiérrez & Harun, 2011; Gánem-Gutiérrez, 2014, 2016; Kim, 2013; Lee, 2012; Ohta, 2017; Polizzi, 2013; Johnson & Golombek, 2018; Swain & Lapkin, 2013; Swain & Watanabe, 2013; Yáñez-Prieto, 2008; Antoniou, 2016; Walter & van Compernolle, 2017; van Compernolle,
2018). Undoubtedly, these studies have served as crucial reference works for our research as they represent the foundations of all the theoretical framework and methodological design.

Although my research takes as crucial reference all the previously mentioned studies, I slightly diverge from them in the methodological design, especially since no other study has followed an exact-same methodological design as the one I am presenting here. I compared two different groups (control vs. experimental) in a longitudinal way (throughout 8 weeks) implementing the whole ‘Gal´perian STI cycle´ and this is what makes this thesis particularly novel.

1.5. Structure of the thesis

The thesis consists of 5 chapters. The present chapter (Chapter 1) provides a general overview of the thesis, its aims, and introduction to its theoretical underpinnings and the structure of the chapters.

Chapter 2. The Literature Review provides an account of Sociocultural theory and its core components; i.e. mediation, zone of proximal development, regulation and its sub-variants along with the developmental model of Systemic Theoretical Instruction and all its elements and how these work together. In this chapter I also provide an account of the types of knowledge language teachers would ideally possess; and I also present the linguistic features of tense and aspect from both the classic grammatical perspective and from a Cognitive Linguistics view. I close the chapter with an account of the most relevant studies in the field of SCT particularly those based on STI.

Chapter 3. Methodology delineates the complete methodological design followed to accomplish the project. In this chapter I provide a detailed account of the research data collection procedures and methods of analysis used for each research question. I also describe each of the instruments for data collection and schedule of the study.

Chapter 4. Results and Discussion provides both the results and discussion for each research question. For RQ1 and RQ2 I followed a specific format; that is, the results for each question were presented separately from their discussion. RQ1 drew
exclusively on quantitative data, whereas RQ2 was mostly qualitative in nature with a small proportion of quantitative findings. By contrast, for RQ3 I present both results and discussion together - due to the nature of the data and the type of analysis conducted, i.e. *microgenetic*.

Chapter 5. Conclusions, presents the overall conclusions of the study and the pedagogical implications. For the general conclusions I present them as a summary of the main findings of each research question. I continue with a discussion of some pedagogical implications rising from the results; and finally, I conclude with some of the limitations of the study.
Chapter 2. Literature Review

Introduction

The present chapter will focus on reviewing and discussing the literature based on four major topics relevant for this study. The first section of the chapter (2.1) will be devoted to the nature of EFL teachers’ cognition in order to explore the types of knowledge an EFL teacher has been identified to require, metalinguistic, pedagogical and practical.

The second section of the chapter (2.2.) will present the major theoretical framework by which this study is guided, Lev Vygotsky’s Sociocultural Theory (SCT) with particular attention to some of its key notions such as The Zone of Proximal Development, the concept of Mediation, verbalisation and inter/intra psychological interaction.

Drawing on SCT, section three (2.3.) will introduce the leading pedagogical model informing this study, Systemic Theoretical Instruction (STI) and its core elements, Orienting Basis of Mental Action (SCOBAs), Dialogic Thinking, and Communicated Thinking.

Finally, section four (2.4.) will present an overview from various perspectives, e.g. the classical perspective and, the cognitive linguistics perspective, of the target concept in this thesis, i.e. tense and aspect in English. This section will also outline the key challenges this concept poses to L1 Spanish speakers learning L2 English, before describing the traditional approach to teaching tense/aspect at the University of Quintana Roo in Mexico. I will close this section with an overview of the current research based on CBI/STI for L2 learning.
2.1. The nature of EFL Teachers´ cognition and its types of knowledge

The nature of the ELT teacher´s cognition is precisely what shapes the teacher personality. Teachers´ cognition refers to everything that is in the mind of the teacher; as Borg (1999) suggests, it is the sum of all beliefs, knowledge, theories, assumptions, and attitudes they bring to the classroom: ¨Teachers´ cognition is the milieu of thoughts (internal) that guide the language teacher, as opposed to behaviour which alludes to what the teacher does in practice (external) visible to everyone¨ (S. Borg, 1999, p.118).

In contrast to a traditional teacher who teaches any subject content (e.g. mathematics, physics, history, etc.) a language teacher is usually someone who will ´transport´ the learner to a new world in a totally different language. Therefore, a language teacher does not only need to possess a good amount of linguistic knowledge of and about the target language, but also the appropriate pedagogy to communicate it; but most importantly, a language teacher must be someone empathetic with his/her pupils and always committed to ´transporting´ the learners into a ´new world´. A new world of words, ideas and perception; because when we learn another language, and eventually aim to speak another language, it is as if we gain a new personality or enter a different world.

For Cook (1999) , a language teacher is someone who is a ¨multicompetent language user¨ (p.185); a person who does not only master the target language (in the case of non-native speakers, which is the case in this study), but that also knows about methodology, pedagogy, and is empathically ready to step into the learners´ shoes. A fundamental part of language teachers´ knowledge is that they must possess a positive attitude to guide the learners -as the ´ambassador of the target language´ making it desirable and attractive to be learnt by his/her pupils.

Teachers´ cognition can also be understood as divided into two main streams as VanPatten (1997) suggests, where there is a micro-level of knowledge which is related to the ´whys´ and ´do´s´ of teaching (internal); and a macro-level of knowledge which examines and influences teachers´ knowledge within the greater social context (external) (p.2). On the one hand, the micro-level specifically deals with all that is related to teachers´ knowledge regarding their interests, attitudes, judgement, self-control, enthusiasm, adaptability, personality and degree of training and all that influences the teaching/learning process. On the other hand, the macro-level has to do with the knowledge about interaction within the language classroom, curricular
progression, testing and evaluation, types of tasks and activities, aids and materials and the whole framework of the educational institution context (Richards, 1987).

For the purposes of this study, the focus of attention regarding teachers´ cognition will be centred on three major categories or types of knowledge that some authors have identified and seem to agree upon (see Basturkmen, Loewn, & Ellis, 2004; Borg M., 2001; Borg S., 1999, 2003, 2006, 2009; Carrier, 2003; Gatbonton, 1999; Golombek, 1998; Richards, 1987; Shulman, 1986; that is, *metalinguistic knowledge, pedagogical knowledge* and *practical knowledge* which play an important role in the enhancement of EFL teacher trainees´ cognition through Systemic Theoretical Instruction (STI)ˇ as the title of this thesis suggests. The following sections will explore these types of knowledge.

**2.1.1. Metalinguistic knowledge**

_Metalinguistic knowledge* (MLK) is defined as explicit knowledge about language that can be brought into conscious awareness and be articulated (Roehr, 2010, p.10; Hulstijn, 2005; Roehr, 2006). MLK is related to knowing the rules and systems that govern the language. It has to do with the amount and organization of the knowledge as well as with understanding the structures of the subject matter which in this case is the English language. This type of knowledge is perhaps the most important of the three discussed here to become a language teacher; without it the teacher simply cannot communicate any linguistic knowledge. Although metalinguistic knowledge is fundamental for the milieu of teaching, it is not the type of language that is perceived or noticeable at first sight; it is usually ´veiled´ within teachers´ overall knowledge but vital so the teacher can survive pedagogically.

In other words, it could be said that *metalinguistic knowledge* is considered within the ´big umbrella´ of what is also known as *technical knowledge or subject matter content knowledge* (Blyth, 1997, p.56), which has to do with the amount of organization and systematicity of the subject matter per-se (Shulman, 1986). Technical knowledge “denotes the body of explicit ideas derived by a profession from deep reflection or empirical investigation” (Basturkmen, Loewn, & Ellis, 2004, p. 246). Thus, according to the literature previously cited, it could be said that metalinguistic knowledge is about being aware and understanding the dynamicity, functions and
relation of the grammatical components of a linguistic system (e.g. lexicon, syntax, morphology, phonology, verbs, nouns, adjectives, etc.).

Having a sound metalinguistic knowledge of the target language does not mean automatic expertise for the teacher, i.e. to gain fluency or pedagogical knowledge. Some authors (see Blyth, 1997; S. Borg, 1999; Sheen, 2002; VanPatten, 1997) suggest that for language teachers it is important to have a good metalinguistic knowledge as it helps to transfer and guide learners towards the recognition and purposes of being aware of basic grammatical concepts through the names, categories and parts of the language (e.g. speech, tenses, sentences, nouns, prepositions, adjectives, etc.) (Borg, 1999, p. 97). However, metalinguistic knowledge is not something all learners want to master; but some of them usually are interested in grasping it, e.g. adult and mature learners tend to find useful the provision of metalinguistic knowledge from the teacher as opposed to younger learners (p.99). This may be linked to the fact that some learners rely more on explicit knowledge and therefore could benefit from explicit learning which is "characterized by the learner’s conscious and deliberate attempt to master some material or solve a problem” (Dörnyei, 2009, p.136).

Borg S. (1999) addresses the fact that achieving a high degree of metalinguistic knowledge among language teachers is associated with teachers´ experience, cognition and contextual factors among others. At the same time he emphasizes the importance of such type of knowledge in strengthening the intellectual and professional development of the teacher.

Metalinguistic knowledge is, undoubtedly, a very important type of knowledge; however it is not always mandatory to teach it in a very explicit way. Its emphasis and relevance are strongly linked to learners´ types and needs and the teaching context, as well as the expertise of teacher; it is undoubtedly the type of knowledge a teacher cannot lack of.

Blyth (1997) points out how stressful, difficult and sometimes frustrating it can be for both teachers and learners to deal with metalinguistic terms of concepts like tense and aspect and how to apply ‘aspectual’ rules that are based on descriptive terms such as “continuing event”, “durative event”, “punctual event”, “single event”, “repeated event” (p.54). Blyth (1997) cites Langacker (1994) in emphasizing the importance for teachers who will eventually transmit this knowledge to their learners of knowing clearly each one of the grammatical concepts and categories, and states that traditional teaching methods and textbooks only address these concepts at a very descriptive level.
without taking into consideration that concepts like tense and aspect must be taught as dynamic mental processes (p.52). The author further argues that it is through the content in traditional text books that language teachers gain their metalinguistic knowledge but it also shows up their limitations regarding this type of knowledge and that they may not yet be ready to teach or have enough of this knowledge.

The claims about the relevance of understanding and fully knowing concepts like tense and aspect made by Blyth (1997) and Langacker (1994) strengthen the case for focusing on trainee teachers such as the participants in this study. Anecdotal evidence from the researcher working in the field where the study was conducted (Negrete-Cetina, 2007; 2010) and the literature regarding this issue (see Casillas-Navarro, 2006; García, 2012; Gaspar-García, 2012; Yáñez-Prieto, 2008; Cuza, Miller, & Sadowski, 2012, p. 6) provide evidence that the concepts of tense and aspect are notorious for their complexity in both teaching and learning among L1 Spanish language learners of L2 English. For instance, Blyth (1997) states that teacher assistants routinely confuse aspect with tense and this is also a very common mistake among learners (p.57)

For achieving the goal of training future language teachers regarding the concepts of tense and aspect at a metalinguistic level, Blyth (1997) suggests the incorporation of elements from cognitive linguistics as Langacker (1994) proposes in order to understand them from a more dynamic and holistic approach (p.56) and this is precisely what this study aims to achieve (cf. Section 3.2.).

2.1.2. Pedagogical knowledge

*Pedagogical knowledge* is the type of knowledge related to the `knowing how` to make the subject matter (in this case English) comprehensible to others. Pedagogical knowledge can also be seen as the `bridge´ by which teachers will connect their different types of knowledge and personal philosophies of teaching with their students. For Shulman (1986) pedagogical knowledge is strongly linked to subject matter content knowledge which is not exclusively metalinguistic knowledge, but is a type of knowledge directly linked to the subject content matter. That is, subject matter content knowledge could be considered as a `sub-component´ of pedagogical knowledge in the sense that it alludes to the forms and ways in which content knowledge is related to other topics and disciplines in both theory and practice. In the context of our study, subject matter content knowledge is the English language; not only as the target to be
learnt, but also as a tool itself for mediation and developing knowledge. The teacher should therefore know how to deal with it and better transmit to the learners (Shulman, 1986, p. 9).

*Pedagogical knowledge* goes beyond subject matter content knowledge as it ‘handles’ knowledge with such ‘care’ that it can be delivered to the learners in the most complete, accurate and simple form so pupils can understand what it is all about. In the words of Shulman (1986), *pedagogical knowledge* is talking about a given topic/theme in its most ‘teachable’ form; “…the most useful forms of representation of given ideas or concepts, the most powerful analogies, illustrations, examples, explanations, and demonstrations…” (p. 9). The author suggests that pedagogical knowledge is finding a way in which teachers can encourage their learners for example as also suggested in Bloom’s taxonomy, that is, through actions and skills to develop and gain knowledge on the basis of cognitive: mental skills (knowledge); affective: growth in feelings or emotional areas (attitude or self); and psychomotor: manual or physical skills (p. 9). For example, in our case we will only focus on the development and gain of knowledge (mental skills). Overall, *pedagogical knowledge* implies ‘understanding of what makes learning of specific topics easy or difficult to be learnt’ (ibid).

Pedagogical knowledge is also connected to *curricular knowledge* (Shulman, 1986) which is concerned with knowing the curriculum and identifying what order topics should be taught in, and also how to relate one topic to another (p.10).

### 2.1.3. Practical knowledge

*Practical knowledge* denotes the “procedural knowledge an individual practitioner has derived from experiences of teaching and learning languages… it is used as a resource to be applied rapidly and intuitively” (Basturkmen et al., 2004, p. 247). *Practical knowledge* is derived from teachers’ experiential knowledge and is strongly linked to *personal practical knowledge* and different sub-variations forms of knowledge (i.e. *propositional knowledge, case knowledge* and *strategic knowledge*) (Shulman, 1986, p.10; Clandinin & Connelly; 1987). For Golombek (1998) teachers’ *personal practical knowledge* is about “teachers’ personal philosophies, metaphors, rhythms, and narrative unity as representing forms in the language of practice… contextualized in experience and represents unity among teachers’ beliefs, values and actions” (p.448). Clandinin & Connelly (1987) see *personal practical knowledge* as
being dialectical, situated, and dynamic in response to their personal and professional lives, embodied in persons, and taking the form of stories…” (p.497). These sub-variants of teachers’ knowledge aim to explain what is behind each one of the actions and decision taking of a teacher in the classroom.

Golombek (1998) identifies ESL teachers’ personal practical knowledge as (1) filtering experience so that teachers can reconstruct and respond to any given teaching situation; and (2) giving physical form to their practice; that is their knowledge in action. For the author it is about ‘how teachers use their knowledge in the language classroom’ (p.447).

Under the main frame of teachers’ practical knowledge, Shulman (1986) suggests three forms of teacher knowledge: (1) propositional knowledge, (2) case knowledge and (3) strategic knowledge, each one of these with a very specific function approached as follows:

(1) Propositional knowledge has three sub-variants: principles (disciplined empirical or philosophical inquiry), maxims (practical experience), and norms (moral or ethical reasoning). Propositional knowledge encapsulates all the principles of teaching on the basis of what is logical and correct on behalf of everyone involved in the process of teaching-learning and society. These kinds of propositions are ‘norms or values, ideological commitments of justice, fairness, equity, and the like that ideally every teacher must apply and keep in mind’ (p.11). (2) Case knowledge has its basis on the experience of events that have occurred in the language classroom and set a precedent for further decision taking on how to ‘tackle’ a complex situation (e.g. learners’ behaviour, or how to teach in relation to past experiences). Finally, (3) Strategic knowledge is the form of knowledge that arises in the resolution of an un-expected event where there is a precedent and the teacher has to solve the situation in the least problematic way on the principles of wisdom and practice (p.13).

As seen previously, the ‘spectrum’ of teachers’ knowledge is sufficient to allow teachers to have cognition from a diverse range of perspectives. Pedagogical knowledge, practical knowledge, personal practical knowledge, propositional knowledge or strategic knowledge, are all forms of approaching teachers’ cognition. From a Sociocultural theory point of view, Golombek (2015) suggests that both teachers’ emotions and cognition are socially and culturally derived from the social interaction of teaching where we co-construct and re-shape our emotions, experience,
culture and knowledge (p.481). Similarly, Johnson & Golombek (2018) consider the reconceptualization of teacher cognition in what they call a more productive and appropriate framing considering the idea of ecologies of teachers’ inner lives which they believe is an ‘all-encompassing, emergent, situated, distributed, and embodied characterization of teachers as whole persons taking action in the social world’ very much aligned with Vygotskian SCT (p.447).

The next section explores in depth what Sociocultural theory proposes through its core elements, particularly within its pedagogical approach of developmental education, Systemic Theoretical Instruction (STI) which will be discussed below.

2.2. Sociocultural Theory

Introduction

The theoretical framework informing this study is that of Sociocultural Theory (SCT); thus, section 2.2. will explore some of its fundamental concepts, i.e. mediation, regulation, and Zone of Proximal Development (ZPD) which are crucial for understanding and interpreting the pedagogical model investigated in this study. To that end section 2.3 will specifically focus on Gal’perin’s Systemic Theoretical Instruction (STI) which is an approach to developmental education strongly linked to SCT.

L2 learning theories such as the so-called interactionist perspective tend to see interaction primarily as a mechanism to provide learners with opportunities to be exposed to input, receive feedback, and engage in negotiation of meaning. Long’s Interaction Hypothesis proposes that:

… environmental contributions to acquisition are mediated by selective attention and the learner’s developing L2 processing capacity and that these resources are brought together most usefully, although not exclusively, during negotiation for meaning. Negative feedback obtained during negotiation work or elsewhere may be facilitative of L2 development, at least for vocabulary, morphology and language-specific syntax, and essential for learning certain specifiable L1-L2 contrasts. (Long, 1996, p. 414) .
Together with opportunities to produce output (Swain, 1985; Swain & Lapkin, 1995), these interaction features are seen as the driving force facilitating language comprehensibility and thus hopefully supporting the acquisition process. As will be outlined below in more detail, interaction is also at the heart of Sociocultural Theory, but this theoretical approach sees the social plane as much more than a mechanism for individuals to engage in negotiation of meaning or be exposed to comprehensible input, for example. SCT sees interaction, and more broadly, the social plane, as the source of opportunities for jointly constructed meaning making, for the co-construction of knowledge, for work in the zone of proximal development. From this perspective the very contributions of individuals are inter-dependent on each other. In sum, language use and language learning are seen as one and the same thing (see Lantolf & Thorne, 2006a; 2006b; Swain, Kinnear, & Steinman, 2011).

2.2.1. The Nature of Knowledge

One fundamental premise for Vygotsky’s SCT is that knowledge is not exclusively created in the mind, but instead it is the result of human social interaction with the environment. Wells (1992, pp. 286-287) in Gánem-Gutiérrez (2004) suggests that knowledge is determined by three basic principles; first, knowledge is inter-psychologically created by knowledgeable individuals, thus it is not something already pre-conceived ready to be used or applied; second, knowledge is the co-construction between individuals and their social environment; and third, such co-construction is always mediated by cultural processes and/or psychological or physical tools.

For Vygotsky the human mind was conceived as a functional system in which the properties of the natural, biologically specified, brain are organized into a higher or culturally shaped mind through the integration of symbolic artefacts into thinking. These higher order mental capacities include voluntary attention, intentional memory, planning, logical thought and problem solving, learning and the evaluation of these processes (Lantolf, 2000, p. 2). Among these, language serves a vital function as the ultimate mediation tool for regulating and exercising control over other people and the self (Gánem-Gutiérrez, 2004, p. 8).

To understand these higher order capacities Vygotsky proposed four genetic domains: phylogenetic domain, how human mind has evolved through the integration of
mediational tools over the course of history; *sociocultural* domain, how different types of symbolic tools developed by human cultures throughout the course of their respective histories affected the kinds of mediation; *ontogenetic* domain, how children appropriate and integrate mediational means, primarily language, into their thinking activities as they mature; *microgenetic* domain, interested in the reorganization and development of mediation over a relatively short span of time (Lantolf, 2000, p. 5). These four domains allow for a complete understanding and exploration of the human capabilities of thought and interaction together.

The *microgenetic* domain in particular will serve as a core component of analysis in this study thus allowing us to trace individual and/or co-constructed knowledge among language learners. Through *microgenesis* the processes of mediation, collaboration and scaffolding that will be introduced and discussed below can be studied and analysed in order to investigate L2 learning and development.

### 2.2.2. The Zone of Proximal Development (ZPD)

Generally speaking, the Zone of Proximal Development is a metaphor that Vygotsky proposed to refer to a developmental space where mediational means can be appropriated and internalized (Lantolf, 2000, pp. 16-17). The ZPD refers to the distance between what we can do independently and what we can do with the assistance of others or of cultural artefacts and, which hopefully lead to internalization and appropriation of co-constructed knowledge. Thus, the ZPD is also conceived as the collaborative construction of opportunities for individuals to develop their mental abilities (Lantolf, 2000); or as Machado de Almeida Matos (2000) suggests ´the area where learning takes place´ (p.335).

The ZPD is not something that is easily measurable or tangible by means of a specific task or a grammatical form. It is a metaphorical space and it could be said it is a process which accounts for the learning process seen as a continuum with emerging and changing needs of the individual in terms of the quality and quantity of assistance required for development and co-construction of new knowledge.

The ZPD defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state.
These functions could be termed the "buds" or "flowers" of development rather than "fruits" of development. The actual developmental level characterizes mental development retrospectively, while the zone of proximal development characterizes mental development prospectively (Vygotsky, 1978, p. 86).

Vygotsky (1978) argued that the learner’s development depends on the quality of mediation received within his/her ZPD which makes it crucial pedagogically and methodologically for understanding (and supporting) the process of learning and development and how these should be approached, investigated and empirically measured. Vygotsky pointed out that “it is the ZPD which allows to trace the learner’s immediate future and his/her dynamic development, not only for what has already been achieved developmentally, but as well for what is in the course of maturing” (Vygotsky, 1978, p. 87). It is precisely, within this metaphorical space where mediation, internalization and appropriation of knowledge occurs (Gánem-Gutiérrez, 2013, p. 135).

2.2.3. Mediation

Perhaps the key construct in Vygotsky’s SCT theory is that of mediation which is the core of all forms of human activity, language, being one of the most powerful mediation tools to regulate our relationships within our environment and ourselves. Mediation is the result of the dialectical interaction between elementary biological processes and culturally shaped forms of life i.e. tools, concepts, institutions (Lantolf & Poehner, 2014, p. 55).

In an educational context mediation can also be interpreted as the ´medium´ or the ´means´ by which the teaching-learning process becomes interconnected (i.e. tools, signs, numbers, music, art, language). In other words, human social and mental activity is organized through culturally constructed artefacts (Lantolf, 2000). So, mediation alludes to the full interaction being conducted during the process of gaining and developing new knowledge in what the authors suggest arises as a dialectical relationship where “two opposing, different, or complementary forces” inter-act together (Lantolf, 2000, p.56) (cf. Section 2.2.3.2).

Miller (2011) in Lantolf & Poehner (2014) identifies three orders of mediation in Vygotsky’s theory and suggests their general characteristic is ´the interception of the
self by the other ¨ (p.57). Thus, indistinctly of the mediation (first, second or third order) 
¨the individual always enters a macro-cultural system, i.e. family, political, legal, sports, 
religion or education as an actor whose behaviour mental and physical eventually 
becomes influenced by the environment¨ (p. 57). Overall it can be said that it is 
mediation that allows the human being to understand and interact with the environment 
and in this process become a self-regulated agent/person capable of developing their 
cognitive human potential.

In considering mediation as the ultimate means of connecting and developing 
human social and mental activity, Vygotsky proposed the three orders known as first 
order mediation, second order mediation and third order mediation; these are presented 
in the following sections.

2.2.3.1. First-Order Mediation

According to Karpov & Haywood (1998) in Lantolf & Poehner (2014) first- 
order mediation refers to metacognitive mediation and has its origins in interpersonal 
communication. The author uses the example of when parents tell to their children not 
to do something because it could be harmful for the child. In a situation with this 
dynamic, ¨parents are regulating the child’s behaviour and at the same time providing 
the child with a tool of self-regulation¨ (p.27). Parents are passing the child crucial 
information which will serve the child to understand and learn something new from the 
environment. By understanding this instruction the child eventually starts to self- 
regulate by appropriating this new knowledge to be on their guard against something 
potentially harmful. Usually as an imitation act, children react to something first said by 
adults, subsequently internalizing new knowledge obtained from their immediate 
environment (people, situations and objects).

Interaction in first order mediation usually implies the use of semiotic tools for 
self-regulation, i.e. clarification, summarizing, questioning or monitoring (Karpov & 
Haywood, 1998, p. 27). Thus, first order mediation is strongly related to early stages of 
human cognitive development as when we learn crucial and basic elementary things 
about our surrounding environment. First order mediation is basically self-evaluating- 
planning-monitoring-checking and is most likely to be acquired during childhood. It is
basically high order thinking which implies self-control on the cognitive processes involved in learning.

2.2.3.2. Second-Order Mediation

Second-order mediation is related to culturally constructed tools; for Miller, (2011), second-order mediation alludes to the ¨surrogate form[s] of consciousness¨ which function as an aid to ¨facilitate certain actions and inhibit others¨ (p.398). For Karpov & Haywood (1998) second-order mediation is related to cognitive mediation; that is, artefacts or mediation tools acquire a special relevance until they are integrated into human activity entering a dialectical relationship with the user. In other words, it is not until humans take up artefacts to carry out activities, that the artefacts influence and shape the activity, and at the same time, humans shape and influence artefacts (Wertsch, Del Río, & Álvarez, 1995, p. 23 in Lantolf & Poehner, 2014). Second order mediation refers to the ´relation´ between the human being and any artefact or tool used to develop, discover, or understand new knowledge; dialectical comes from the Greek διαλεκτική, dialektikē being concerned with the participation/involvement of two parts being complementary one to each other. The authors exemplify this with the use of clay to mould figures in the arts, paper and pencil as a tool to manifest ideas or thoughts, or the use of numbers in infinite ways in mathematics. Second-order mediation occurs in a dialectic-symbiotic way, that is, between human and artefacts, and it is the human individual who leads this activity.

Thus, second-order-mediation is basically making use of external resources to achieve specific learning and communicative goals, i.e. the use of numbers, letters, nature, or art amongst others in all its possible forms to enhance human cognition.

2.2.3.3. Third-Order Mediation

Third-order mediation encapsulates all sorts of mediation framed within the scope of ¨institutions, social structures or cultural forms constituted by bundles of relations between people and between people and their products (i.e. education, politics, religion, work, economy, leisure, family, science, etc.)¨ (Miller, 2011, p. 400). Third-order
mediation is the type of mediation which strongly relates to what Vygotsky referred to as *leading activities* for which play and education are fundamentally conceived. Third order mediation is linked and “relevant to human psychology society because what it considers influences the nature of first and second order mediational means” (Lantolf & Poehner, 2014, p. 61). For instance, STI as a third order mediation developmental/pedagogical approach proposes a model to pursue as its ultimate goal the development of human cognition and development framed within the context of society, i.e. among individuals usually in the setting of education institutions having as agents the learners and teachers.

It is within third-order mediation where Systemic Theoretical Instruction (STI), the developmental pedagogical approach which will lead this study emerges, proposing an alternative to develop human knowledge from a sociocultural perspective. To explore more the components that give support to STI I will start by discussing in the following section some of its core elements like *verbalisation*.

### 2.2.4. Interaction, Verbalisation, Languaging and Collaborative Dialogue

“While -and through- speaking and interacting with others learners engage in verbal thinking” (Vygotsky, 1986 in Negueruela-Azarola, García, & Buescher, 2015, p. 233). It is through interaction that learners advance in their learning process to eventually attain the targeted knowledge, i.e. concepts, ideas, forms, processes, etc. or the desired mental development level (Vygotsky, 1978, p. 90). It is language that “completes thought” playing an important role in mediating cognitive processes (Swain, 2006a). *Interaction* among learners is usually through *verbalisation*, also known as *languaging* which is the process of “making meaning and shaping knowledge and experience through language” and therefore considered as a key component in the process of learning (Swain, 2006, p. 98).

From an SCT view, interaction is an essential part of the learning process that enables individuals to achieve development; thus, through languaging in collaborative dialogue or individually learners are engaged in inter-psychological activity ultimately becoming able to co-construct knowledge and to create meaning (Gánem-Gutiérrez, 2004, p. 15). Through languaging, language becomes the most powerful tool to mediate
our thinking or our interlocutor’s, co-constructing meaning as a source of language
teaching and development; "language is the use of language to mediate cognition and
affect" (Swain & Lapkin, 2013, p.105). When we speak with another person using
language to construct knowledge, we are verbalising or languaging. We can do it in the
form of collaborative dialogue (interpersonal communication) or by contrast, we can
speak or whisper to ourselves as private speech (intrapersonal communication), "when
one languages, one uses language, among other purposes, to focus attention, solve
cognitive problems and create affect" (Swain & Lapkin, 2013, p. 105). Verbalisation in
the form of private speech has been found to contribute positively in the process of
second language learning. It helps learners to gain self-regulation during task
completion from early stages of learning as they enter into a dialogue with themselves
on reflecting, monitoring and decoding their own learning process (Stafford, 2013, p.
168). Languaging as Collaborative dialogue "is where language use and language
learning can co-occur; it is language use mediating language learning; it is cognitive
activity and social activity" (Swain, 2000, p. 97). During collaborative dialogue learners
refine their knowledge and gain a new or deeper understanding of a phenomenon.
Speaking produces an utterance, a product (an artefact) that can be questioned, added to,
discredited, and so forth (Swain & Watanabe, 2013, p. 1).

Negueruela-Azarola (2013) proposes that “linguistic mediation is central in
internalization from a social perspective…internalization as a transformative
developmental process leads only to learning or learning and development…” (p.4-5),
thus “the internalization of the verbalised conceptual understanding mediates subsequent
334).

In this study the concepts of verbalisation, languaging, and collaborative
dialogue (as previously explained) appear in different sections. These allude to the
various ways in which learners interact within the language classroom particularly in
section 2.4.3.2 on Verbal Action in which the different phases of languaging that STI
considers dialogic thinking (individual languaging/private speech) and communicated
thinking (collaborative dialogue) are explained. It is through these two forms of
verbalisation that this study aims to gather information from learners (participants) and
to explore how they co-construct their knowledge.
2.3. Systemic Theoretical Instruction (STI)

Systemic Theoretical Instruction (STI), also known as Concept Based Instruction (CBI) (Lantolf & Poehner, 2014) is a pedagogical model proposed by Gal´perin (1969; 1992) and can be seen as a continuum or complementary to Vygotsky´s work. Following Vygotsky´s line of enquiry, Gal´perin expanded on STI as a theory of developmental education which proposes ways of “materializing conceptual knowledge, so it can be appropriated by learners and used to mediate their performance in goal directed activity” (Lantolf & Poehner, 2014, p. 3), that is, both learners’ behaviour and activities must be oriented towards a very specific goal and purpose. Either perceived as a developmental theory or pedagogical approach, “STI seeks to help learners through the integration of theory into educational praxis, not merely to understand concepts, but to appropriate them for use in concrete practical activity, including communicative activity in the case of language” (ibidem p. 62). In other words, Lantolf & Poehner propose that STI represents a promising approach (particularly for adult learners) to make use of declarative knowledge (e.g. using SCOBAs to help learners understand how form conveys meaning) for communicative activity. They suggest that, with appropriate practice, STI can be more efficient than approaches which focus exclusively on practice as a tool to automatization of procedural knowledge.

Thus, to understand STI from a broader perspective it is key to look at its basic components which are presented in the following sections.

2.3.1. The Dialectical Unity of Teaching/Learning

For Gal´perin, teaching and learning were two concepts intrinsically related as in ancient philosophical dialectics; that is, the duality of teaching-learning can be understood as having a bi-directional quality. The act of teaching, i.e. the instructor, the means, the materials, and the speech in the language classroom are all part of a social act and simultaneously are influencing and transforming other members of the society. Thus, in a teaching context, learners are constantly receiving, processing information, dialoguing either with the instructor, among their peers or with the self which could be interpreted as the type of ´duality´ of teaching-learning Gal´perin conceived. ´Vygotsky insisted on the dialectic unity of learning-and-development- a unity in which learning lays down the pathway for development to move along and which in turn prepares
ground work for further learning, and so on…” (Dunn & Lantolf, 1998, p. 422). The authors put forward that in Vygotsky’s view; “specifically human mental activity is the consequence of the dialectic interaction between natural and cultural/historical forces” (Dunn & Lantolf, 1998, p. 426) which we could think is enacted within the teaching and learning synergy.

Lantolf & Poehner (2014) state that “a dialectical relationship is established when a user takes up the artefact and uses it to achieve specific communicative goals” (p. 61). This idea could be interpreted in dialectical terms, where the ‘user’ could be the learner, language acting as the ‘artefact’, and the achievement of a specific communicative goal could be the act of understanding, internalising and ideally learning a given concept or idea. As earlier discussed (cf. Section 2.2.2.) the ZPD is no other but a dialectic unity of learning-and-development, or more appropriately, learning-leading-development (Newman & Holzman, 1993 as cited in Dunn & Lantolf, 1998, p.420).

2.3.2. Mental Action and its levels of abstraction

Gal´perin advocated that teaching-learning necessarily implied some type of action directed at specific objects in the service of an aimed goal, and actions could be conducted with support at four different levels of abstraction: material/materialized, with support of physical objects or their representation in the form of models, diagrams, or pictures; perceptual carried out without support of external objects, but with the support of visualized or imagined objects; verbal, performed with the support of external speech; and mental, conducted internally without the support of artefacts or speech to achieve self-regulation (Arievitch & Haenen, 2005; Haenen, 2001 in Lantolf & Poehner, 2014, p. 61) Once the learner has gained ‘self-regulation’, he/she is capable of directing his/her own cognitive functioning in a given learning context (Stafford, Catherine, 2013, p. 166). To exemplify this, the authors make reference to the idea of planning the layout of a garden; in concretizing and attaining this specific goal, first the person has to think of a piece of land and perhaps materialize it by seeing it physically or drawing the potential distribution of it in a perceptual way as imagining the desired outcome; then verbalise the plan of action to carry out the goal (perhaps with the guidance or collaboration of someone else) and finally ´wrapping-up´ and conceiving mentally the complete idea of the garden potentially finalized.
Gal´perin suggested that such mental actions were characterized according to three indicators: generalization, the extent to which an action is stable and essential, if it is context independent and possibly implemented in a variety of environments; abbreviation indicates if the original components of an action are executed or reduced, which typically occurs as a result of practice; and mastery, indicates if the action can be conducted independently with or without help of others, i.e. the teacher, a diagram or a model (Haenen, 2001, p. 160).

For Gal´perin this was the ideal form of pursuing cognitive development and eventually achieving the learning goals (Haenen, 2001; Arievitch & Haenen, 2005). In considering these levels of abstraction a developmental theory such as STI could be implemented to the benefit of human intellectual and cognitive development.

2.3.3. The Phases of the Process of STI Implementation

STI comprises three general phases and two sub-phases of operationalization which seek to stimulate development and mental actions of the learners. However, these do not necessarily follow a sequential order or have to be carried out together; their application depends on the context conditions and, classroom practices aimed to be implemented on learners´ current knowledge (Arievitch & Haenen, 2005, p. 159).

The phases STI comprises in order to accomplish its pedagogical proposal are, the first regarding the implementation of Orienting Basis of Mental Action (SCOBA) and the second regarding Verbal Action which is subdivided into two sub-phases known as 1) dialogic thinking and 2) communicated thinking. And the third or final phase, 3) inner speech; these are explained in the subsequent sections.

2.3.3.1. First Phase: Orienting Basis of Mental Action (SCOBAs)

According to Lantolf & Poehner (2014) the implementation of the Schema of a Complete Orienting Basis of an Action (SCOBA) is perhaps the most important and influential phase from the three (p.63) because it is during this phase that, learners are introduced usually for the first time to the new concepts to be learnt. Through the implementation of SCOBAs which consist of, i.e. a picture, a model, a diagram or some
other non-linguistic representation of the concept, learners are exposed to novel information and start processing it towards understanding and internalization. “Gal´perin argued that verbal explanations of concepts alone are potentially problematic for learners, particularly at the early stages of developmental education” (Lantolf & Poehner, 2014, p. 63). It is precisely because they represent systematic conceptual knowledge that the use of SCOBAs is argued to better serve pedagogical purposes since these are holistic, abstract, generalizable and do not require strict memorization; they only contain ‘bits’ of language and serve as reminders of knowledge required to engage in particular actions (Lantolf & Poehner, 2014, pp. 63-64).

The classical definition of Concept, is an idea or mental image which plays a part in the use of reason or language (Oxford Dictionary, 2019). From a SCT view ‘concept´ is an abstract idea or notion that represents something with the specific purpose of making it understandable and clear to others. A concept can be represented in words, numbers, sounds, images or any other not tangible form but clear enough to convey the meaning essence of the concept to others. “Communication in social interaction is the origin of conceptualizations in personal-intra-action… it is the internalisation of meanings with functional significance in communicative activity…” (Negueruela-Azarola et al., 2015, p. 233). Conceptualisations are constructed through verbal thinking (Vygotsky, 1986) and SCT is based on conceptual development and personal transformation in the L2 classroom (Negueruela-Azarola et al., 2015, p. 233). Thus, the goal of conceptually-based pedagogy is promoting internalisation.

SCOBAs capture concepts and their main challenge is to convey pedagogically the systematic essence of such concepts (basically a general idea) clearly enough to help learners understand the concept. The ultimate goal is to allow them to re-use this new knowledge and deploy it in broader contexts in concrete goal-directed activities with a specific purpose and use (Lantolf & Poehner, 2014, p. 65).

Thus, as mentioned above and in simpler words, a SCOBA is a very general idea of the new item (concept) aimed to be learnt in its most basic form. That is, a SCOBA is a pedagogical tool that serves the function of an instrument to teach or introduce new knowledge to the learner in ways in which it does not require any effort for memorization but rather encourages a deep understanding of the concept. Its function is ‘more of a materialized `reminder´ to guide their performance regarding the knowledge
required to engage in a particular action” (Lantolf & Poehner, 2014, p. 64). Figure 1 (p.21), below from Yáñez-Prieto (2008) used to teach tense exemplifies what a SCOBA is.

Figure 1. Example of SCOBAs from (Yáñez-Prieto, 2008).

In Figure 1 Section (A) Preterit, P1 indicates the temporal perspective from which the narrator views the event -a point in time later that the event itself. P2 indicates an imaginary temporal perspective that the narrator adopts in order to reposition herself/himself as if viewing the event at the time it occurred. F1 is speaker’s focus on Jazmin. F2 is speaker’s focus on the initiation of the event (i.e., Jazmin setting off running). In (B) Preterit, the speaker shifts focus (F2) to the conclusion of the event whereby Jazmin arrived at the station.

2.3.3.2. Second Phase: Verbal Action

Gal’perin, (1969) in Lantolf & Poehner, (2014, p. 65) suggested that the second phase, Verbal Action, should proceed (ideally) once the learners have shown a high
level of understanding and control of the concept through the SCOBAs. He argued that once the learner had grasped the new concept/knowledge, the use of external speech would serve the function of ensuring understanding and internalization had occurred. The verbalisation phase was conceived as serving the learners to become able to speak reflexively regarding the new concept either with their peers or to themselves; this verbalisation phase would serve to make the transition between the material and mental actions.

Gal’perin proposed two phases of verbal action, 1. *Communicated thinking*, and 2. *Dialogic thinking*. In the former, students are required to carry out an action linguistically in order to make it comprehensible to others and not just themselves. In the latter learners are encouraged to speak to themselves covertly about what they are doing when understanding and deploying a concept; (Gal’perin, 1969, p. 260; Lantolf & Poehner, 2014). In the following section the particularities of these two forms of verbal action are explained in detail.

### 2.3.3.2.1. Communicated Thinking

In Gal’perin's (1969) ideal, conceptualisation of STI *communicated thinking* was a key verbalisation phase followed by *dialogic thinking*. Communicated thinking is overt speech with someone else aiming to transfer verbal information comprehensible to others; it is spoken and open discourse aiming to get a message across. Gal’perin believed that it was necessary to “separate the action from its previous materialized support to give path to overt social speech” (Haenen, 2001, p.163). During communicated thinking learners are expected to verbally externalize/communicate the action/concept linguistically rather than relying on any direct tangible objects. Gal’perin believed that overt speech was a transitional phase between the materialized and the mental action; he argued that after manipulating tangible representations of a concept in a materialized form, the next step was to replace such materialization with speech through communication. By proposing this, “Gal’perin encompassed Vygotsky’s general law that social speech became the source of thought” (Haenen, 2001, p.163). He thought that only through socially-based application of the concept aimed to be learnt, the proper learning of it could occur. This was because the communicative function of speech was only effective until speech conveyed the message to others.
2.3.3.2.2. Dialogic Thinking

*Dialogic thinking* is no other than *talking to oneself*; it is also known as *private speech* (Lantolf & Poehner, 2014, p. 66) During this type of talk the learner explores the ‘inner speech act’ by covertly talking to him/herself in order to reflect on what he or she is aiming to learn. In proposing his developmental theory, Gal’perin, (1969) proposed Dialogic thinking as an activity that the learner conducts individually. It is a silent moment in which the learner while ‘speaking to him/herself’ has the opportunity to reflect on what he is trying to understand to eventually internalize for further externalization. It is this reflection that will contribute to make the learner aware of the new knowledge being learnt.

Paul (2012) in his critical thinking essays, suggests *dialogic thinking* is precisely the type of activity learners need to put into practice to really reflect, assimilate and understand the new knowledge presented to them. He points out that through dialogic thinking learners –(individually and mentally) can “compare and defend multiple points of view on issues, exploring and testing them, and become more truly convinced of what they are learning, and thus take that knowledge to heart” (p.268). The author also suggests that it is dialogic thinking that encourages rational thinking by the learner by adjusting his or her thinking to the nature of each concept or query; this implies that the person has to think on the relevance, completeness or implications of the information he/she is processing. The key is, how do we make learners achieve this kind of reflection? “Learners should be encouraged to make their ideas more explicit and to critique them; this will help to make their own ideas more sophisticated and reason about them”, the author points out (p.271).

According to Lantolf & Poehner (2014, p. 66) it is *dialogic thinking* that takes learners from the ‘I’/‘You’ common interactions, to the ‘I’/‘Me’ speech which implies features of psychological speech; that is, through ‘continued engagement in dialogic thinking, activity becomes increasingly routinized and moves closer to becoming purely mental from the abstract to the material, (Haenen, 2001, p. 164). It stops being only about the ‘subject’ ‘I’/‘You’ to turn into the ‘object’ ‘I’/‘Me; the learner becomes able to manipulate and reflect upon the concept/new knowledge in a more objective way rather than just subjectively. For Haenen (2001), dialogic thinking is the transition from ‘overt
speech´ to ´speech minus sound´ which in the mind such overt form of speech will take the shape of a ´deep structure´ that is the new concept (p.164).

For the purposes of this study, **languaging** will be approached from the two different phases propose by STI: **communicated thinking** and **dialogic thinking**. Thus, either through **dialogic thinking** or **communicated thinking**, **languaging** allows for manipulation and use of the recently learnt concept in new contexts or activities going from the mental concept to the materialization of the idea.

### 2.3.3.3. Third/Final Phase: Inner Speech

The final or third phase of STI, is that of **inner speech** and alludes to the stage in which the learner has gained ´mastery´ of the concept. At this point, the learner has understood and internalized the concept and it becomes mental and can make almost automatized use of it in all sorts of contexts using his creativity freely. In Gal´perin´s words, the learner ´just knows that´s how it is´ (1957, p. 221 in Lantolf & Poehner, 2014). **Inner speech** is completely different to dialogic thinking in that it is purely mental, therefore thought; on the contrary dialogic thinking is usually covert speech to oneself.

The phase of **inner speech** alludes to the moment in which the learner can execute and deploy the newly learnt knowledge quickly, almost spontaneously and error free; according to Lantolf & Poehner (2014) ´the individual is now able to use the concept with facility in different contexts and often in creative ways´ (p.69). At this point, the learner has gone from the materialization of the concept through the manipulation of the **SCOBAs**; has mediated through **communicated thinking** while trying to understand and being able to transfer the new knowledge to others; and has gone through the **dialogic thinking** phase with him/herself in an effort to make the new knowledge mental and automatic. The learner now is ready to ´deal´ with the new concept purely at an abstract level; the new form has become ´pure thought´ (Haenen, 2001, p. 164). The action/concept is mentally executed with the aid of mental images and abstract concepts (ibid). As SCT suggests, language is perhaps the most ´powerful´ tool learners have to **mediate** in their process of understanding while co-constructing their new knowledge (Vygotsky, 1986). Ideally, at this stage the learner will be able to...
understand, cope and apply as mentioned above, spontaneously and error free, the target concepts being learnt indistinctly of the nature of these (i.e. metalinguistic knowledge, language use, pedagogical knowledge, etc.).

Thus, it is through STI and all the components that make it (SCOBAs, verbalisation, and internalisation phases) that we aim to explore the enhancing of EFL teacher trainees’ metalinguistic knowledge specifically in relation to the grammatical concepts of tense and aspect. An array of studies suggests that these linguistic features usually are considered as complex and problematic areas to cope with, see for example, ‘acquisition of tense and aspect and agreement morphology in L2 English’ (Casillas-Navarro, 2006); ‘development of the grammatical concept of aspect’ (García, 2012); ‘the acquisition of tense and aspect in L2 English by Spanish speakers’ (Gaspar-García, 2012); ‘the development of tense and aspect morphology in child and adult heritage Spanish (Cuza, Miller, & Sadowski, 2012); ‘teaching teachers to teach aspect’ (Blyth, 1997). In the case of the participants in our study with L1 Spanish learning English, anecdotal evidence from the researcher working in the field suggests the need to explore the way in which teacher trainees are being instructed regarding tense and aspect (Negrete-Cetina, 2007; 2010). I will now proceed to the discussion on these grammatical features.

2.4. Tense and Aspect

Tense and Aspect are two linguistic features present in almost all languages. Generally speaking, Tense is what determines the actual time of the verb in relation to present, past or future; whereas Aspect determines if the action is seen as completed/bounded or in progress/occurring as time flows. These two concepts determine the degree of understanding of a given event in a time perspective from the eyes of the speaker.

2.4.1. The Classical Pedagogic Perspective

The classical or traditional perspective to the study of tense and aspect considers tense as the means to express the time in which an action occurs in relation to the
moment of speaking. In most languages tense has three dimensions—present, past, and future; though some authors like Celce-Murcia & Larsen-Freeman (1999, p.109) suggest that, in English, ‘future’ is not ‘marked as a tense’ as they consider that “in English finite verb stems are not inflected to express future time”. This does not mean that English speakers cannot talk of future events; to do so they make use of auxiliary verbs, modal verbs, phrasal verbs or adverbials of time.

Tense in English grammar is formed according to the scopes of present, past, and future for which there is a specific base form of the verb that in some cases is modified morphologically indicating the corresponding person and tense. In considering some examples; simple present uses the form neutral or zero marker to indicate an event, (e.g. “we play tennis every Saturday morning”); however for third person singular there is a specific rule which consists of adding an –s to the verb (e.g. John plays tennis every Saturday morning). The Simple past is formed with the verb in simple past form for every person and regular verbs undergo a morphological change by adding –ed at the end of the verb (e.g. talk-talked, walk-walked, jump-jumped, etc.); for irregular verbs these undergo morphological change-observing changes in their form (e.g. speak–spoke-spoken; drive-drove-driven; am, is, are-been; etc.). For interrogative and negative statements the simple past uses the auxiliary did for every person and the verb remains in its neutral form, (e.g. Did you go to the dentist yesterday?; I did not see the dentist this week). The present perfect uses the auxiliary verb have for I, we, you and they; and has for third person singular with the main verb in past participle form. Regular verbs in past participle remain in the form of simple past (e.g. played; studied, etc.) whereas irregular verbs can change their form morphologically. The present progressive also known as present continuous uses the verb to be (am, is, are) as its auxiliary verb and the main verb undergoes a morphological change by adding –ing to the main verb, (e.g. he is studying at the library right now; we are watching a movie at home, etc.). Even when sometimes the ‘formal’ existence of the future tense in English is not ‘acknowledged’, notions of future events can be conveyed through the use of the auxiliary verb will and this tense is considered as part of the whole spectrum of time (Celce-Murcia & Larsen-Freeman, 1999a; Cowan, 2009) (see Table 1 below). The authors suggest the existence of up to 12 combinations of tenses in English.
In English there are two types of aspectual distinctions: the *simple* and the *progressive*. According to Hirtle (1967) in Celce-Murcia & Larsen-Freeman (1999a), the simple aspect “refers to events that are conceptualized as complete wholes and usually are not perceived as for allowing further development” (p.112). Simple aspect is also known as *perfect* aspect; for the purposes of this study the term used will be *simple aspect*. The criterion for choosing the term *simple* for aspect in this study is to avoid any further confusion with the terminology *perfect tense*.

On the other hand, the progressive aspect “stands in contrast and is considered as incomplete or imperfective, the event or state is viewed as a portion of a whole and there is room for further development or change in the action itself” (ibid p.112).

Celce-Murcia & Larsen-Freeman (1999); Hirtle (1967) and Smith (1983) agree in that aspect is different but complementary to tense; it is directly related to the internal structure of the action occurring at a given moment. Aspect refers to the action seen from the eyes or perspective of the viewer/speaker of the action; it allows for a holistic interpretation of the event from an external eye in relation to the event as being “bounded or completed” or “in progress or incomplete”. When the action indicated by the verb is seen as *bounded* or *completed* it can be considered as *simple/perfect* in terms of aspect; that is, the action has a clear beginning and end within the frame of time it takes place. On the contrary, when an event is seen as *in progress* or *incomplete* it is considered to be *progressive/imperfect* in terms of aspect; this means the event is seen as ongoing and has no specific beginning or end within the scope of time it takes place.

According to Celce-Murcia & Larsen-Freeman (1999) there are four aspects to be considered in English: *simple* (also know as zero aspect), *perfect, progressive* and their combination, *perfect progressive* (p.111). Cowan (2009) also points out the existence of the *iterative* aspect which is when the action is repeated, and the *habitual*
aspect which alludes to an action occurring regularly. The author suggests that these 
different aspects are present in the verbs of most languages.

Regarding the *progressive/imperfect* aspe
tual distinctions (in-
progress/incomplete) two are formed with the use of auxiliary verbs; these are, the *progressive/continuous* and the *perfect*. The progressive/continuous is indicated with the 
use of the auxiliary verb *to be* + main verb (*-ing*). The progressive aspect usually 
indicates an on-going action that can occur at any time and expresses duration (Cowan, 
2009, p. 362). The *perfect* aspect is formed with the use of the auxiliary verb *have/has* + 
main verb (*past participle*) and alludes to events that started in the past and continued to 
the present; this gives to the perfect aspect the notion of ´recency´ or ´incompleteness´ 
and it is commonly used retrospectively to indicate a time prior to now (Celce-Murcia & 

Both imperfect aspects (*perfect* and *progressive*) can be used together and can be 
framed within the spectrum of present, past and future. Another particular characteristic 
of these two aspects is that they are usually built with activity verbs and convey time 
expressions of duration like ´for´ or ´since´ (Cowan, 2009, p. 272).

Smith (1983) suggests that aspect has two core components: 1) *situation aspect* 
which involves type of situation, e.g. event or state; and 2) *view point aspect* which 
involves the type of perspective, e.g. simple or progressive (p. 479); these are also 
directly related to the concepts of *habituality* and *iterativity* (Bertinetto & Lenci, 2010). 
Thus, events can be perceived as non-dynamic, e.g. John played his guitar last night; or 
as on-going processes, e.g. John is playing his guitar now. The non-dynamic nature of 
the former indicates that the event is completed; it has a clear beginning and end 
therefore its aspectual perspective can be considered as simple/perfect. The latter 
indicates that the event is still an ongoing situation and has no clear boundaries of when 
it exactly begins or finishes; therefore it is considered to have a progressive/imperfect 
aspe
tual perspective. Hence, in simple/perfect aspect the verb remains in neutral or 
zero form, while progressive/imperfect aspect is signalled by a particular form which is 
considered an aspectual morpheme: auxiliary *be* + *ing* (ibid p.480).

Thus, from a classical perspective on tense and aspect it can be said that there 
are *12 tenses* in English and *4 aspects* which for purposes of ESL/EFL teaching and 
learning could be seen in a more simplified way: three tenses (in the basic form) as the
base for building the 12 tenses and two aspects (simple and progressive) for gaining a general understanding of the tense-aspect system on English, as Bardovi-Harlig & Reynolds (1995); Celce-Murcia & Larsen-Freeman (1999); Cowan (2009); Hirtle (1967); Smith (1983); amongst others seem all to agree.

2.4.2. Cognitive Linguistics Perspective on Tense and Aspect

Another way of approaching tense and aspect for its study, different from a ‘traditional grammars’ view, is from the approach of Cognitive Linguistics which offers an alternative perspective of interpretation.

For Cognitive Linguistics (henceforth CL) language is seen as working in conjunction with all the cognitive structures such as mechanisms of perception, attention, categorization, memorization and inferencing (Dirven, 2005; Langacker, 1987; 2008; Reif, 2012; Niemeier & Reif, 2008). It is from Cognitive Linguistics that Cognitive Grammars (henceforth CG) derive and see language as the result of every semiological component, i.e. semantics, phonology and symbolic structures working together (Reif, 2012, p. 39).

Cognitive Grammar posits that in “linguistically-mediated communication, lexis and grammar are understood to specify different portions of a cognitive representation, which conjointly enable optimal ‘meaning transfer’. The interaction between lexis and grammar in discourse is therefore crucial to the understanding of the overall functioning of language” (Reif, 2012, p. 39).

For Cognitive Grammar, language comprises two subsystems: 1) Lexical subsystem; which considers open class elements, e.g. nouns, lexical verbs and adjectives; and 2) Grammatical subsystem, which comprises closed class elements, e.g. determiners, auxiliary verbs and conjunctions. Cognitive Grammar postulates no constructive rules for the syntagmatic combination of lexical items; instead it proposes constructional meaningful schemas rather than rules to capture formal patterns (Reif, 2012, p. 40). Cognitive Linguistics aims for the development of meaningful concepts emanating from dynamic mental processes of conceptualization (Langacker, 2008).

Thus, from a Cognitive Grammar perspective, tense and aspect are seen as a meaningful holistic system that works at the morphological and syntactical levels hand
in hand with the cognitive mental structures, rather than just a set of strict prescribed rules that must be followed (Reif, 2012, p. 43). CG treats tense and aspect as a system that 1) involves overt grammatical markers such as bound inflectional morphemes (e.g. "ing" and "ed") and grammaticised free morphemes (e.g. "be" and "have"); and 2) constructional schemas, which provide templates for the composition and combination of elements within a verb phrase (Langacker, 2008).

For CG lexical elements have an impact on the content of cognitive representations, whereas grammatical elements specify the structure. Therefore, if the lexis is changed a completely new scene is produced; on the other hand, if grammatical properties change, these alter the structural organization of the situation and perception (Talmy, 2000).

Fauconnier (1997; 2007) suggests that tense alludes to a ‘mental space’ or ‘base space’ in both the speaker’s and hearer’s mind, and that it is precisely in such space where tense and time become anchored. Furthermore, it is within this mental space where ‘speech time’ or the speaker’s moment of speaking and the ‘event time’ when the action occurs merge and become an ‘external’ reality. Hence, tense appears as ‘the grammatical tool that allows the speaker to locate, select, or highlight a time span which is relevant for what he/she wants to say… the present tense is always used to express proximity/immediacy – be it temporal, epistemic or ‘narrative’ proximity – while the past tense always indicates distance/non-immediacy, either with respect to relevance time, reality status or social commitment’ (Niemeier & Reif, 2008, p. 342). For Boogaart & Janssen (2007) in Reif (2012) tense is precisely when the language user ‘contextualizes the situation into the current discourse’, in other words, it is through the inflexions in the lexicalized verbs e.g. live, lived that ‘tense establishes a temporal relation between the communicative situation and the situation communicated’ (p.70).

According to Reif (2012) tense has the characteristic of being deictic since tense forms are elements whose meaning can only be inferred and described with reference to the communicative situation; in other words, its interpretation depends on ‘who is talking’, ‘who they are talking to’, ‘where they are talking’, ‘when they are talking etc. (p.70). It is tense that allows the speaker to ‘keep track’ of time.

Evans & Green (2006) put forward the notion of construals which are forms of linguistically mediated communication triggered by means of linguistic expressions to
access conceptual knowledge activating domain –general processes like perspectivisation or focusing attention. From a CG standpoint tense and aspect are construals evoking conceptual representations manifested through utterances in which resolution and viewing are implied to convey and interpret meaningful messages along with perception and conception (Langacker, 2000).

In order to grasp the concept of tense and aspect, Langacker (2000) in Reif (2012, p. 56) (Figure 2) suggests that the viewer determines the maximal field of view (MF) which comprises everything observable given an orientation. Since the viewer who is the conceptualizer (C) cannot perceive everything within the maximal field at once, viewing necessarily involves focusing of attention. The viewer needs to single out a limited or stage region (OS) area of the maximal field as the centre of his/her attention. The OS is perceived then as the maximal scope (MS) in which the immediate scope (IS) is contained as figure 2 below shows.

The following images (Figure 2 and Figure 3) all taken from Reif, (2010) portrait the concepts above mentioned in a visual.

![Figure 2. Perception and Conception (Reif, 2010, p.56).](image)

The immediate scope (Figure 2) can be considered as the viewing frame (Radden & Dirven, 2007) which allows for a zooming in of the situation in order to identify the boundaries of the events (Figure 3) (Smith, 1991 in Reif, 2012, p. 101). Moreover, Figure 3 depicts the viewing frames with indefinitely lasting states, i.e. maximal viewing frame and restricted viewing frame.
Cognitive processes and mechanisms of perception, attention, categorization, memorization and inferencing will enable to identify the *processing time* which is the time span required for the conceptualization of the situation, and the *conceived time* which is the time in which the situation occurs. A *sequential* and *summary scanning* occurs to determine the nature of the events as figure 4 suggests. If one access the component stages of a situation successively as it unfolds through time, like in motion picture, that mode of processing is referred as *sequential scanning*; it represents the actual nature of the real-time viewing experience (Langacker, 2008p. 111). In the mode of *summary scanning* the component stages of a situation undergo summation, in that ”representations of successive stages are superimposed to form a single gestalt”; the situation is seen in ‘summary fashion’, so that ”all the component states are simultaneously active and available” (Langacker, 2008, p.111).
Once the event has been identified as either a sequential or summary event, the boundedness determines if the aspect is simple or progressive (see Figure 5).

![Figure 5. Boundedness in Space and Time (Reif, 2010, p.19).](image)

All these process concepts occur within the *Mental Spaces framework* suggested by Fauconnier's (1997; 2007) *Model of Mental Spaces* which forms the basis for Reif’s (2012) integration of the linguistic categories of tense, viewing direction aspect and viewing scope aspect into one coherent framework through the *Mental Space Approach* (Reif, 2012, p. 115). Through the idea of mental spaces, the author proposes a way in which the concepts of time and aspect are conceived as components of the same linguistic structure; however, each one has a very specific function. Based on Fauconnier’s premise, Reif (2012) suggests that the notion of *mental spaces* consists on “*cognitive constructs* which are activated during both language production and language comprehension of content elements, possess an internal structure, and are connected to other mental spaces within a particular space configuration” (p.115). The construction and connection within these mental spaces occurs through the lexical and grammatical devices of language; “tense is responsible for helping us to keep track of the time shifts and epistemic shifts within discourse; aspect is concerned with the construal of the situation spaces themselves by indication from which direction they are accessed and whether they are viewed with a maximal or a restricted scope” (ibid).
Emerging from the core of Cognitive Linguistics, the notion of *mental spaces* initially proposed by Fauconnier (1997; 2007) and also explored by Reif (2010) appears as an alternative to explore the teaching and learning of tense and aspect from the perspective of cognitive grammar. The idea of language production and comprehension being interconnected with cognitive constructs within the mental spaces appears to be a strong and coherent proposal to investigate in the EFL context.

Furthermore, Niemeier & Reif (2008) consider aspect as a type of ‘choice’ for the speaker to refer to the action in terms of proximity and distance from the point of the viewer. That is, when the speaker sees the action as a non-progressive form *completed* or *bounded* it means it is seen as finished and therefore it is seen from a distant or an outside perspective (Figure 5). By contrast, when the speaker recurs to the use of a progressive form that is *in progress or incomplete* the action is perceived as a ‘closer’ in progress event yet not finished leaving space for more action to happen (Radden & Dirven, 2007). As opposed to tense, aspect is a non-deictic category since it does not serve the function of associating the situation intended to the communicative situation; rather, it is related to the various forms of perceiving a situation (Reif, 2012, p. 70). *Aspect* refers to “the situation spaces themselves by indicating from which direction they are accessed and whether they are viewed with a maximal or a restricted scope” (Reif, 2012, p. 115).

Cognitive grammar appears to offer an alternative way of understanding the concepts of tense and aspect from a broader perspective, arguably more logical and functional; it places emphasis on the speaker’s perception of events as the *natural point of departure* for explaining aspectual choice from a logical and dynamic point of view (Blyth, 1997, p. 58). In hand with the general cognitive structures of the mind, the concepts of tense and aspect seem to gain more sense rather than looking at them as merely grammatical rules that should be memorized and learnt mechanically and discretely. The concepts of mental spaces, viewing frames, and boundedness as conceived by cognitive grammars allow for a more in-depth and clear conceptualization and perception of tense and aspect. The challenge arises in translating these into pedagogical practice; the teaching of tense and aspect in hand with cognitive grammar opens a new window for exploring alternative forms for communicating this new knowledge to the learners.
2.4.3. Challenges for L1 Spanish speakers learning L2 English.

As Celce-Murcia & Larsen-Freeman (1999) point out, in ESL/EFL teaching contexts it is most common to refer to the three basic tenses (present, past and future) and to the two types of aspect (simple and progressive) which are vital for learners to fully understand two slightly different but complementary concepts. Even when the concept of tense and aspect seems to be present in many languages, the way in which these two are expressed in English may not be easy to understand for learners from different linguistic backgrounds; this is due to the fact that in many cases tense and aspect are “conventionalized differently within discourse frames in different cultures” (Celce-Murcia & Larsen-Freeman, 1999, p. 175).

The case of L1 Spanish EFL learners is no exception in facing this type of challenge when faced with tense and aspect; see Casillas-Navarro (2006); García (2012); Gaspar-García (2012); Yáñez-Prieto (2008). These authors have conducted research regarding the acquisition of tense and aspect by L1 Spanish speakers learning L2 English, looking at the difficulty for these students when faced with such linguistic features. On trying to exemplify the difficulty some learners may encounter while learning the concepts of tense and aspect, Blyth (1997) points out that “it is usually frustrating for both students and teachers to apply aspecual rules that are based merely on descriptive terms such as “continuing event”, “durative event”, “repeated event” and so forth” (p.54). Dansereau (1987) suggests that some textbooks may be vague, incomplete, contradictory and generally have poor explanations regarding tense and aspect (p.35).

English and Spanish have slightly different ways of expressing tense-aspect distinctions (Cuza, Miller, & Sadowski, 2012, p.6).

In SPANISH there are TWO forms for TWO aspectual meanings:

a. María tocó el piano [bounded/completed]

b. María tocaba el piano [unbounded/habitual/ongoing]
In ENGLISH there can be ONE form for TWO aspectual meanings:

a. Mary played the piano [bounded/completed]
b. Mary played the piano as a child [habitual]
c. Mary used to play the piano [unbounded/habitual/ongoing]

As the previous examples show, English and Spanish differ in the way they indicate tense and aspect; as Celce-Murcia & Larsen-Freeman (1999) point out “discourse convention of learners’ native language tense-aspect-modality system will most likely not transfer positively to English” (p.175). This can, therefore, result in confusion for learners and make the learning process difficult.

As Comrie (1976) in Salaberry (2008, p.5) explains, in both English and Spanish the concept of temporality which alludes to tense and aspect is expressed morphologically (e.g. verbal endings), lexically (e.g. time adverbials), syntactically (e.g. periphrastic forms) and contextually (e.g. grounding). Nevertheless, each language has specific ways of expressing aspectual meanings; in Spanish the aspectual contrasts of perfective-imperfective meanings are represented in the past tense through the use of preterite and imperfect whereas English as opposed to Spanish does not grammaticalize the perfective-imperfective contrast, but rather the progressive-non-progressive one represented in the distinct meanings conveyed by for example he read versus he was reading (Salaberry, 2008, p.5).

For instance, in Spanish “aspectual contrasts are obligatorily marked in past tense only which is not the exact case for English. In Spanish past tense inflectional morphology indicates both tense (past) and aspect (perfective or imperfective): the preterite encodes perfective aspect and past tense, whereas the imperfect encodes imperfective aspect and in most cases, past tense” as the following examples (1a, b) suggest (Salaberry, 2011, p. 185).

(1) A. Julián comió (PRET) una manzana [bounded]
   “Julián ate an apple”

   B. Julián comía (IMP) una manzana [unbounded]
   “Julian ate/was eating an apple”
The previous examples could indeed be confusing for L1 Spanish learners of L2 English since in the target language aspect must be marked. In English these examples would have to be conveyed with the contrast of the simple past and the past progressive (p. 185) as shown in example (2).

(2) Julián comía (IMP) una manzana, cuando llegó (PRET) Lucas.
   "Julián was eating an apple, when Lucas arrived"

Another feature of Spanish aspectual forms different from English that may be misleading is the association between English past progressive and Spanish Progressive. In Spanish the imperfect covers a wider scope of aspectual notions in contrast with English; thus to convey the habituality that Spanish expresses with the use of the imperfect, English lexicalizes habitual aspect in the past with the use of verbs such as would or used to (Salaberry 2008, p. 186) as shown in example (3).

(3) A. Cuando era (IMP) niño, Julián comía (IMP) manzanas todos los días.
   "When Julián was a child, he would eat/used to eat/ate apples every day"

However, Spanish can be said to have an 'equivalent' option for the English lexical markers of habituality such as the defective verb soler; see example (3B).

B. Cuando era (IMP) niño, Julián solía (IMP) comer manzanas todos los días
   "When Julián was a child, he would eat/used to eat/ate apples every day".

The previous examples demonstrate some instances of how both languages English and Spanish differ in the way the notions of tense and aspect are conveyed, and show that there is not necessarily an exact correspondence for each one of the forms of tense/aspect in both languages. Therefore, the challenge for learners arises precisely because "morphosyntactic marking of aspectual contrasts in English is not necessarily the equivalent to the use of Spanish preterit-imperfect tense and aspect" (ibid).

Thus, the challenge is not only for the learners, but also for the teachers in trying to convey pedagogically the teaching of these linguistic features. This section provided examples of some of the features (tense-aspect) divergent in English and Spanish and provided evidence of the complexity of these systems suggesting pedagogical research in the area is necessary to help L2 teachers help L2 learners.
2.4.4. The current approach for teaching tense and aspect in the context of UQROO

In the context of the present study teacher trainees from the Bachelors Programme of English Language at the University of Quintana Roo (UQROO) in México, who are themselves L1 Spanish learners of L2 English, are usually taught under what could be described as a traditional Communicative Language Teaching (CLT) approach. As CLT suggests, the ultimate goal of the programme is to attain communication for meaning so teacher educators follow the format of the institution’s English programme syllabus which is underpinned by the text book series ”Interchange” (Richards, Hull, & Proctor, 2012) published by Cambridge University Press. The aim through the course development is to cover both the institutional syllabus and the content of the ”Interchange” book.

It is important to say, that English is not a pre-requisite to enter the bachelors programme. This is because the pre-university level system in the state of Quintana Roo has a very weak English teaching component and it does not guarantee that candidates wanting to enter the bachelors programme may have the level of proficiency required for taking content subject courses in English (i.e. grammars for teachers, methodology, philosophy of education, practicum, linguistics, psycholinguistics, sociolinguistics, etc.).

Thus, students (i.e. teacher trainees) have to take a series of eight general English courses (one per semester) plus one course on reading and writing, one course on listening and speaking and two courses of grammar for teachers as well as the content subjects mentioned above (see Appendix 1). All these courses are spread throughout 8 semesters during the length of their 10 semester programme. Once students have completed all their credits, at the end of their bachelors course they are required to take an institutional version of the Cambridge CAE exam which certifies they have fully completed their English training.

Teacher trainers (the faculty of the program within the Department of Language and Education at the UQROO) endeavour to communicate their knowledge in the best pedagogical way possible by first introducing the new concepts and linguistic features from a communicative approach expecting that learners will grasp such new knowledge implicitly and intuitively but this does not seem to happen easily. Based on the
historical records of the scores of the Cambridge CAE exam it is usually difficult for them to pass this exam (institutional version). After teacher trainees have achieved their eight levels of English, two courses of English (one on reading and writing, and one on listening and speaking), and the two grammars for teachers courses, they take the CAE exam as a requisite for graduating. A considerable percentage of the students taking the CAE exam fail and those who manage to pass only achieve low or intermediate scores; it is very rare to have students achieving high scores. Some trainees have to take the exam two or three times before they pass. This offers evidence that in terms of language proficiency and use they are not getting the appropriate training and this is reflected in their scores.

As previously mentioned most of these courses, including the eight language courses, despite being nominally focused on CLT, appear to be taught with a strong emphasis on discrete grammatical points as if they were following a prescribed form for learning only rules and patterns of what is correct and incorrect. So in reality, rather than following an authentic communicative language teaching approach; what most language teachers are doing is just the opposite: following structural approaches of prescribed grammar rules for language teaching. Most of the syllabuses of the courses are encompassed within the contents of the “Interchange” series books but in practice the results are not showing proof of being effective enough (see Appendix 2). It appears that learners are expected just to memorise how to master grammatical rules rather than grasping general concepts in a more holistic way.

During the first semesters when learners are initially introduced to the concepts of tense and aspect, teachers usually rely on language use exercises like ‘snap-shots’ and dialogues usually contained within the textbooks (see Appendix 3) with the purpose of reactivating any previous knowledge (e.g. past continuous) they may bring from pre-university level. However, this does not always work at the first attempt and that is when teachers proceed to explicitly present the new target structures of grammar.

It is important that learners understand how tense and aspect work together and how they are powerful linguistic tools that enable us to communicate/convey or talk about past events. Thus, it is important to introduce teachers to an approach that might facilitate the understanding and development of the tense/aspect system, so that they eventually can use this knowledge to help their learners talk about past events.
The aim of this doctoral project is, therefore, twofold: (a) to help non-native teacher trainees better understand the tense/aspect system themselves so that they (b) can better help their own students when they graduate; but also to provide them with the opportunity to experience an innovative and potential new approach to teaching English as a foreign/second language.

2.4.5. Current research on STI/CBI for L2 learning

Pioneering investigations exploring the potential of STI/CBI for L2 learning and teaching can form the basis of the development of pedagogical materials as well as research designs for their empirical investigation. Studies have tested the model on the teaching and learning of various features of grammars in various languages, i.e., Spanish, English, French, Japanese, German, Catalán, Malay and artificial languages with encouraging outcomes for the field of language teaching. From these, some have focused specifically on the grammatical concepts of tense/aspect, and some others on diverse topics of ELT in some cases implementing the complete Gal’perian cycle while in other cases only some of the stages are implemented (e.g., use of SCOBAs or verbalisation). The studies conducted by Gánem-Gutiérrrez (2016); Gánem-Gutiérrrez & Harun (2011); Harun (2013); García, (2012); Negueruela-Azarola, 2003 are perhaps some of the most relevant for my design as, seen together, they demonstrate how STI/CBI can be implemented in its entirety. For example by experimenting and exemplifying issues of SCOBA construction and materialisation of concepts and/or how to go about implementing verbalisation phases.

The work by Gánem-Gutiérrrez & Harun (2011) is key for our research as it investigated the effectiveness of verbalisation as a mediational tool for understanding tense-aspect marking in English based on CBI. Participants consisted of a group of six L2 advanced English learners in a British university drawing on tests and protocols (individual think-aloud and pair-work with the use of SCOBAs) to gather data. The research was conducted during two consecutive daily sessions on individual and paired basis with their verbalisation audio-recorded, and the design included pre- and post-tests. Their findings revealed that CBI process helped most of the participants to gain a deeper understanding of the concept of tense-aspect marking in English; they were able to provide definitions of aspect that included key conceptual factors relating to the
grammatical concepts and which they did not appear to have been aware of prior to having participated in the study. Microgenetic analyses evidenced the role of verbalisation as a regulatory tool as aimed in the principles of CBI.

Gánem-Gutiérrez (2016), another crucial study guiding our research, aimed to investigate the potentiality of SCOBAs for enhancing metalinguistic knowledge in an L2 Spanish context, focusing on the tense-aspect system, specifically the contrast between the Preterite and the Imperfect in Spanish. Six university students in the UK participated in the research design with pre- and post- tests and treatment which included use of SCOBAs. Data collection took place over three sessions/days and the materials consisted of a series of interconnected electronic Web-based concept maps (CMaps) and slides based on cognitive linguistics. Participants interacted freely with the materials, i.e. exploring the CMaps and looking at the embedded slides in order to respond questions followed by a paper task aiming to consolidate connections between meaning and form as part of the treatment. Overall, results indicated that the type of materials used during treatment contributed in enhancing participants’ understanding and quality of resources to think about the preterite and imperfect. Although the study was relatively short with promising results, Gánem-Gutiérrez (2016) suggested that longer and deeper forms of mediation may contribute to deeper understandings necessary for full conceptual development.

Other studies that partially implemented the cycle of STI/CBI on diverse topics (i.e. teacher education) are Fogal (2017); Golombek & Doran (2014); and González & Melón (2013). Fogal (2017) explored the relevance of CBI and its implications for teacher education regarding instruction and pedagogical content knowledge through the use of SCOBAs. Golombek & Doran (2014) investigated the extent to which SCOBAs could serve the purpose of unifying language teacher emotion, cognition and activity. The study was carried out with a group of eleven language teacher trainees in a North American university, during an eight-week course for international visiting scholars wanting to improve their English. Participants had to reflect on their experiencers as learners and beliefs about teaching; reading about curriculum development and genre-based approaches on languag teaching; and design of their courses. Data was collected in the form of writing reflective journals, video recordings, and interviews through a video protocol. The data from the journals was analyzed through the process of conceptualizing SCOBAs. The anlysis exemplifies how language served as the unit of
analysis to identify both positive and negative emotions in the data as teachers’ appraisals reveal aspects of their emotional thining and activity. The authors based their analysis on Imai (2010) on the assumption that emotional content is evident across varied levels of language, from lexicon to discourse. Golombek & Doran (2014) interpreted the instances of emotional and cognitive dissonance framed on a Sociocultural perspective, concluding that for language teacher educators the SCOBAs help to highlight that teacher expression of emotion is intertwined with cognition and activity as part of the developmental process of beginning teachers (Kubanyiova, 2012) and can be addressed through mediation. The SCOA seemed to have functioned with other forms of teacher education mediation and in less fruitful cases may uncover nuances in the triadic relationship of teacher cognition, they concluded.

González & Melón (2013) focused exclusively on the SCOA as a tool to develop learners’ autonomy in the Spanish and Catalan language classroom at university level, during a school year Serbia. The authors found that implementing the use of the SCOA among students served as an ‘engaging’ instrument that both teachers and learners were able to use actively in the classroom to develop their own learning strategies in a free manner based on the activation of previous knowledge. By the same token, Navajas & Ferrer (2012) set out to investigate the potentialities of SCOBAs as a pedagogical orienting tool to develop learners interest, engagement and control in their learning process of Spanish; the study was carried out within a total of 30 hours distributed through a full school year. Participants were presented with models of SCOBAs containing information on how to prepare and organize their subject matter contents and how to use them; they were later asked to think and reflect on the benefits of it. Learners reported that SCOBAs served the purpose of helping to build a ‘schema’, ‘an orienting map’ or ‘a way of working’ in their process of learning Spanish. The authors concluded that the ultimate purpose of implementing SCOBAs was fullfilled given that it indeed was used by the students as a ‘help to learn’; in other words, as it had been conceived.

Lee (2012, 2016) implemented Gal’perin’s model with SCOBAs and verbalisation phases to teach the concepts of ‘out’, ‘up’ and ‘over’ during six 50 min classes at a North American university. Participants followed a series of tasks and assignments which showed that CBI contributed to enhance their understanding of phrasal verbs in a systematic manner to properly externalize their understanding. Lee
traced the development of the participants, concluding that working with the SCOBAs and pushing them to verbalise their understanding was crucial for the gains reported.

Through microgenetic analyses, Knouzi et al. (2010) investigated the languaging behaviour of two university students (high and low languagers) learning French as a second language. The study traced the development of the students’ understanding of the grammatical concept of voice in French. Their findings suggested that languaging was a self-scaffolding tool that the high-languager used efficiently to solve cognitive conflicts, mediate mental processes, and construct meaning in general.

Williams, Abraham, & Negueruela-Azarola (2013) explored the implementation of CBI from the perspectives of pre-service and novice teachers of French and Spanish. The research was carried out in the format of case studies. The authors wanted to explore how and to extent teachers embrace or reject a pedagogical approach that does not necessarily align with a textbook’s explanation of a grammar point. They focused on the teaching of verbal aspect on the basis that textbooks of learners of both French and Spanish typically present rules of thumb for learning past tense use without explaining the systematic concept of verbal aspect. Participants were trained on the importance of distinguishing between approaches to instruction that include rules of thumb, vs. those that include a scientific/theoretical concept, i.e. CBI (SCOBAs). Data was collected through video-recordings, interviews and observations of classroom instruction. The findings indicated that in some instances and for a variety of reasons-experience, novice and pre-service teachers seem to prefer materials, techniques, and approaches that are more familiar, although not as potentially beneficial for learners. This study is particularly relevant for us, as we aim to investigate if pre-service teachers can be trained on the principles of STI/CBI in terms of MLK knowledge, language in use and pedagogical enhancement, but with a different methodological design.

In his study, García (2019) reports the results of introducing teachers to a CBI approach to the teaching and learning of the grammatical concept of aspect. The participants were three experienced in-service teachers of Spanish as an L2 (the teachers were all native speakers of Spanish). They were engaged in collaborative dialogue and also provided with the mediation necessary to promote the internalisation of aspect. García also explore the ways in which perezhivanie (the unity of emotion and cognition; Vygotsky, 1994) could shape and influence L2 in-service teachers’ conceptual
development through dialogic interaction with others and with the self. Participants were first exposed to a complete and systematic aspectual explanation in the form of three concise visual representations (SCOBAs) so they could manipulate those models, assign them functional value and create meaning through them in communicative activity (p.138). In addition, participants were engaged in dialogic interaction (with themselves or with their peers; i.e. verbalisation). Data collected during two mediated interviews (lead by the researcher) aiming to promote collaborative dialogue was the basis for the analyses. Dialogic interactions aimed at fostering the co-construction of conceptual meaning and were conducted twice: before and after being exposed to CBI to the teaching and learning of aspect (Spanish preterit and imperfect aspectual contrasts). García (2019) concluded that through his study, he was able to witness how teachers’ emotions fostered, and were impacted by, their cognition. The researcher manifested that “the study allowed him to effectively mediate developmental activity in the cognitive-emotive-dialect: by creating crisis through collaborative dialogue during mediated interviews, teachers were afforded the opportunity to make meaning and transform their consciousness in relation to the concept of aspect” (p.148).

Negueruela-Azarola’s (2003) study is perhaps one of the most notable. Negueruela-Azarola assessed the extent to which STI could contribute to fostering L2 grammatical development. His research design investigated a group of twelve university students of L2 Spanish during a sixteen-week semester. From an experimental approach, the author tested the implementation of STI using different activities and materials. Multiple sets of developmental data were obtained and in due-course explored, i.e. learners’ definitions of grammatical concepts, spontaneous learner performance –oral and written – diagnostics, and verbalisation consisting of students’ recordings explaining to themselves the use of specific grammatical features. This data was analysed through Conceptual Interrelated Analysis (CFA) for definition analyses; Conceptual Grammatical Distribution (CGD) for discourse analyses; and Concept as Tools for Internalization (CTI) for verbalisation analyses. The findings confirmed that STI contributed to fostering L2 development towards the attainment of higher levels of awareness and control over the L2. STI led to the internalization of more sophisticated semantic understandings of grammatical meanings and therefore promoted learners’ ability to effectively and creatively use the relevant grammatical features in spontaneously produced written and oral discourse.
Swain and colleagues have also conducted extensive research under the theoretical framework of SCT exploring the potentialities of verbalisation as the ultimate tool to mediate cognition either through individual or collaborative talk in language learning (Swain, 2006, p. 96) (see also Swain, 2006b; Swain et al., 2013; Swain, Brooks, & Tocalli-Beller, 2002; Swain & Lapkin, 1998; L. Brooks et al., 2010; Swain, 2001; Swain, Brooks, & Tocalli-Beller, 2002; Swain & Watanabe, 2013). Swain and colleagues strongly support the notion of *languaging*. One of their studies, Swain et al. (2009) investigated the extent to which verbalisation (languaging) of the grammatical concept of voice (active, passive and middle) in French led students to a deeper understanding of the concept. The study was conducted with 9 Canadian university students and a design which consisted of pre-tests, intervention (aimed to trace the process of learning) and post-tests. Participants were given 36 cards explaining the concept of voice to help them develop their understanding of the concept of voice. They analysed the amount and type of languaging produced and found that students who were high languagers learnt the grammatical concept of voice in French with greater depth of understanding than low languagers. Another key finding was the use of participants’ L1 as a tool to mediate cognitive activity. The authors were able to demonstrate that there was a relationship between the quality and quantity of languaging and performance as measured by immediate and delayed post-tests. Their findings suggested that languaging was a key component in the internalization process of second language grammatical concepts.

On the same line of thought, Harun (2013) set out to investigate the role and value of verbalisation during individual and dyadic collaborative verbalisation activity and the implementation of SCOBAs in enhancing learners’ understanding of simple past, present perfect and past continuous of 32 Malay L1 learners of English L2 in their first year of university. Data collected included pre/post metalinguistic and cloze tests and microgenetic analyses of the protocols of high and low achievers who gained the most/least benefit from the CBI session. Findings indicated that 1) verbalisation helped both groups of learners to improve their understanding of the target concept; 2) specific semiotic mechanisms (e.g., types of languaging units and discourse markers) were used as cognitive tools to establish meanings and connections of the information presented; 3) there exists a positive relationship between the quantity and the quality of verbalisation and learners’ L2 performance; 4) paraphrase, analysis and integration-type
of LUs were key components in learners´ fruitful verbalisation. Harun's (2013) study showed promising evidence supporting the efficacy of verbalisation as a cognitive tool to achieve self-regulation. However, one thing Harun’s study did not consider in the methodological design was the implementation of a control group; doing so may have given stronger support to her findings.

Framed within the Vygotskyan tradition, Watanabe (2019) explored the role of languaging by examining how 20 English learners from a Japanese university language when interacting with a peer (collaborative dialogue) and when interacting with themselves (speech for self). The author aimed to examine how interaction affects students’ languaging and writing. Participants were assigned pair and individual writing tasks as out-of-class assignments during a two week period; additionally, each student attended two writing sessions. The analyses revealed that in collaborative pairs, both students received a higher or the same score for pair writing as compared with individual writing. On the contrary, in non-collaborative pairs, both students received a lower score for pair writing than they did on their individual writing, for which the author supports the notion that the pattern of interaction affects language learning. The overall results of the study demonstrated that all the participants languaged with their peers and with themselves to facilitate mediating their learning process.

García (2012) investigated the teaching and potential development of the grammatical concept of aspect in the Spanish L2 classroom, and the role of verbalising as a tool for internalization. Through CBI, Garcia explored the extent to which verbalisation mediates learners’ understanding of the grammatical concept of aspect, the development of conscious conceptualizations, and students’ written and oral production of preterite and imperfect grammatical forms. 31 college students in the US participated in the study receiving instruction on the basis of CBI for 12 weeks; from these, the author selected one case study for analyses. Multiple sets of developmental data were collected, i.e. personal, ethnographic and conceptual. In a similar fashion to Negueruela-Azarola's (2003) study, García included learners’ definitions of the grammatical concept of aspect; written performance protocols; and verbalisation data recorded during two oral interviews. Data were analysed using the genetic method (Vygotsky's 1978). García's (2012) findings confirmed that learners’ verbalisations were key factors to ascertain L2 conceptual development, as well as a mediational tool that fosters learners’ internalization of the grammatical concept of aspect.
Ohta (2017) set out to investigate the implementation of SCOBAs for pedagogical purposes in teaching Japanese addressee honorifics which consist of clause-final forms that express modes of self-guided by “wakimae” rules. Ohta’s study was conducted on adult learners throughout a summer intensive third-year Japanese class. From this poll of students, she selected one case study (Felicia), focusing on the transformation of her understanding and use of addressee honorifics forms in Japanese. Her findings confirmed the effectiveness of SCOBAs on the principle that these mediation tools provide learners with opportunities to interact with the materials. Students re-constructed SCOBAs collaboratively, from memory which promoted internalisation as students verbalised and pooled their knowledge in order to carry out the re-construction. Felicia’s reflections on her own language use showed her internalisation of and comfort with the concepts taught regarding very complex speech style in Japanese. Ohta's (2017) study undoubtedly provides significant evidence into STI/CBI and the implementation of SCOBAs and collaborative work.

Van Compernolle has also worked extensively within the Sociocultural theory tradition in the implementation of CBI (Walter & van Compernolle, 2017; van Compernolle, 2011; 2018). Van Compernolle (2011) insightful research on language learners’ developing understanding of and ability to use the L2 for meaning-making purposes is another relevant study to our research. From a case study approach, through a one-hour concept-based instruction (CBI) tutorial, the author investigated the development of sociopragmatic knowledge in an intermediate-level US university learner of French (Jane). The focus of the study was on sociopragmatic concepts related to the choice between French second-person pronouns, Tu and Vous. The methodological design included an in-depth moment-to-moment microgenetic analysis to trace how Jane’s cognitive functioning (i.e. conceptual knowledge) arose in and through her engagement in the CBI tutorial. This included collaboration with an expert tutor as well as access to mediating artefacts such as written concept explanations and pedagogical diagrams (SCOBAs). The conclusions van Compernolle (2011) arrived to suggest that in Jane’s case, the rules of thumb for French Tu/Vous use were transformed in relationship to the concepts she was integrating into her cognitive system. Results evidenced that she had reinterpreted the previous rules of thumb in terms of self-presentation, social distance, and power. The author remarks that Jane’s development was not simply a matter of passively learning or memorizing the concept explanations,
but a case of active reception in that she actively integrated the new knowledge into her cognitive system largely through verbalised reflection (p. 3280). Similar to the previous studies recounted, van Compernolle’s (2011) findings give support to the premises of STI/CBI; that is, materialization through SCOBAs based on the use of holistic concepts contributes to internalization fostering cognitive development.

As discussed in previous sections, through the literature review we looked at relevant studies that have set a benchmark for the investigation of exclusively learners’ talk and languaging in the language classroom which are considered as key within the SCT tradition. Although some were primarily devoted to the study of verbalisation, they did not necessarily implement the full Gal’perian cycle with both SCOBAs and Verbalisation in any sequential order (see Brooks, Swain, Lapkin, & Knouzi, 2010; Brooks et al., 1997; Brooks & Donato, 1994; Knouzi, Swain, Lapkin, & Brooks, 2010; Ohta, 1995, 2001; Swain, 2006; Swain, Lapkin, Knouzi, Suzuki, & Brooks, 2009). We also looked at key studies framed within the SCT school of thought, specifically on the implementation of CBI/STI. These studies have investigated diverse topics following the principles of individual and collaborative learning, verbalisation, and use of SCOBAs for conceptual understanding of an array of topics among language learning, e.g. grammatical categories as tense, aspect, mood; or the teaching of specific skills, e.g. writing, sociopragmatic competence, among others (see Antoniou, 2016; Gánem-Gutiérrez, 2004; Gánem-Gutiérrez & Harun, 2011; Harun, 2013; Mendes-Ferreira, 2005; García, 2012; Kim & Lantolf, 2018; Lee, 2012; García-Frazier, 2013; González & Melón, 2013; Navajas & Ferrer, 2012; Nequeruela-Azarola, 2003; Ohta, 2017; Poehner & Infante, 2017; van Compernolle, 2011; van Compernolle, Gomez-Laich, & Weber, 2016; Walter & van Compernolle, 2017; Yáñez-Prieto, 2008;).

As suggested in Section 2.3., SCT, and more specifically STI as one of its key pedagogical applications, proposes that practical language skills (i.e., L2 use/communicative activity) can ultimately be promoted through explicit instruction focusing on metalinguistic knowledge. In other words, and as illustrated by the studies reviewed in this section, the use of SCOBAs-as pedagogical tools which aim at representing and explaining linguistic concepts explicitly and through the use of metalinguistic explanations (declarative knowledge) -is believed to ultimately facilitate language use (see Lantolf & Poehner, 2014). The idea behind this approach is that, by understanding and internalizing grammar concepts, for example, L2 learners will be
able to subsequently make the connections between meaning and form in order to communicate in the second language. This, however, also requires practice activities where the SCOBAs are used to facilitate that form-meaning mapping (e.g., Negueruela-Azarola, 2003) guiding students to choose appropriate forms to convey their meaning. While most of the studies published to date have provided some evidence that STI facilitates L2 development in terms of metalinguistic knowledge (e.g., better understanding of grammatical concepts), further work is required to ascertain the extent to which the use of SCOBAs and its accompanying language procedures might result in an increase of accuracy when learners are actually engaged in communicative activity. This is, of course, the ultimate aim for L2 educators.

In conclusion, the studies reviewed in this section have made an important contribution to the field of language teaching but there is still room to keep exploring and testing the implementation of Galperin’s STI full cycle and its potentialities as a novel pedagogical approach. Throughout the review of the literature, we identified a ‘gap’ which suggests that STI has not yet been explored from the following angles combined in one single study, 1) implementation of all the phases of STI [SCOBAs, Verbalisation and Internalisation]; 2) an experimental-comparative design with control and experimental groups on a larger scale; and 3) intervention with pre, post and delayed testing.

The literature previously discussed provides evidence that language is a powerful tool to mediate cognition and foster learning as it promotes deeper understanding and thinking. Thus, this study was conceived within the framework of SCT and through the implementation of the full Galperian cycle of STI. The main aim was to determine the extent to which language teacher trainees could enhance their cognition, particularly in terms of metalinguistic knowledge, and extend this knowledge to language use in context and to pedagogical thinking in relation to the concepts of tense and aspect. The next chapter (Methodology) details the methodological design for the present study.
Chapter 3. Methodology

Introduction

The methodology chapter provides an overview of the research design, its rationale and an account of the various procedures for data gathering and analysis in the present study. In general terms, the aim of the study was to investigate the relative effectiveness of a pedagogical approach known as Systemic Theoretical Instruction (STI) based on Sociocultural theory to enhance an aspect of grammatical knowledge in an EFL context. The chapter is subdivided into five sections as follows: section 3.2 outlines the rationale for the research design; section 3.3 gives an account of the context in which the study took place, provides information about the participants in the study as well as the instruments for data collection; section 3.4 details procedures for the data collection and analysis; and in section 3.5 I conclude by summarising the chapter.

3.1. Research Design: Rationale

The study is informed by Vygotsky’s Sociocultural Theory of mind (SCT) which suggests that language learning (and development) is attained through social interaction and is subsequently internalised by the individual. According to Vygotsky the construction of knowledge is always mediated by either physical or psychological tools; among these tools, language is considered as the ultimate mediation tool. SCT suggests that language is the most important tool by which human thinking becomes organized and regulated (Lantolf & Thorne, 2006; Lantolf, Thorne, & Poehner, 2015). Encompassed with SCT, the pedagogical approach of Systemic Theoretical Instruction (STI) (Gal’perin, 1992 in Lantolf & Poehner, 2014) serves as the framework to guide this study in an attempt to explore a pedagogical alternative within a given research context.

Specifically, the study set out to investigate the extent to which EFL teacher trainees’ cognition (e.g. pedagogical and linguistic knowledge) can be enhanced through the implementation of Systemic Theoretical Instruction (henceforth STI) compared to Traditional Instruction (henceforth TI, cf. Section 3.3.2. Participants) as part of their training at the University of Quintana Roo.
Following pre-, while- and post-test procedures as part of the design, the participants (both control and experimental) received a treatment regarding the concepts of tense and aspect in English. The control group treatment was based on TI whereas the experimental/intervention group treatment was based on the pedagogical approach of STI implementing the use of novel materials specially designed on the basis of STI (i.e. SCOBAS = Schema of a Complete Orienting Basis of an Action) in both individual and pair work. The purpose of the study was to assess the potential benefits (or otherwise) of STI compared to TI to test the relative potential of this pedagogical approach to hopefully, support the development of the participants’ cognitive skills (linguistic and pedagogical) through dialogic thinking (self-talk) and collaborative work as opposed to TI which follows traditional grammar based instruction.

A mixed methods design was implemented in which both quantitative and qualitative data were gathered to address the research questions (see below). There were various components of the study which consisted of interviews, tests to measure linguistic proficiency, metalinguistic knowledge, and intervention (either STI or TI treatment), individual and collaborative work, and lesson planning. For this study, a mixed methods design implied a blend of quasi-experimental and comparative designs (Creswell, 2012; Liamputtong, 2013; Walliman, 2010) that is, it was considered quasi-experimental because it tested a very specific pedagogical approach (STI vs TI treatment) in a particular context and conditions (control vs. experimental with ELT teacher trainees). In other words, the design did not involve rigid and strict lab conditions which implies a high degree of intervention and control from the researcher. The treatment (both control and experimental) herein was supervised at all times by the researcher under conditions similar to those of the participants’ language classroom context (participants’ interaction included use of multimedia, visual and audio recorders). Participants had a certain degree of freedom to speak, interact and were tested in terms of performance in experimental conditions compared with a control group at all times which gave the study an experimental design (Walliman, 2010, p.10).

The following research questions provided the foundations of the study:

1. Is STI more effective than TI for enhancing EFL trainee teachers’ linguistic knowledge (metalinguistic knowledge and language use) regarding the aspectual
distinctions conveyed by simple past, past continuous and present perfect in English?

2. Is STI more effective than TI for enhancing EFL trainee teachers’ ability to apply linguistic knowledge to pedagogical thinking?

3. What insights into STI can be derived from a case study approach to languaging? The case of the top scorers

Thus, the variables to observe and measure for this study were metalinguistic knowledge and language use (test scores), pedagogical thinking (interviews and lesson plan scores, and amount and type of languaging (cf. Section 3.3.3. Instrumentation). Therefore, the instruments incorporated for this study to measure such variables combined both quantitative and qualitative approaches.

3.2. The study

This section describes the context in which the study took place. It provides a detailed account of the participants and outlines the research instruments along with the procedures for data collection and analysis.

3.2.1. Context

The study took place at the University of Quintana Roo (UQROO) located in the city of Chetumal, state of Quintana Roo within the Yucatan Peninsula in Mexico during the regular school term (autumn 2016). The participants were students enrolled in the English Language Bachelors Program and all of them agreed to volunteer for the study after an informative session about it (cf. Section 3.3.3.1.).

As part of this research study, a pilot study was conducted one year prior to the main study (autumn 2015) with a small number of participants taken from the same context of the main study with the purpose of ensuring that the design was feasible and to identify any possible flaws. For this purpose, a sample of nine students from 5th, 7th, and 9th semester were selected. The pilot study was conducted over a period of two months. The methodological design followed the same format/procedures of the main study, that is, it had a pre-test, intervention, post-test and delayed testing stages. Previous to the pilot study, the instruments to gather the data and the materials for the
intervention (SCOBAs) went through a process of revision and sequential development. The MLK test was designed by Gánem-Gutiérrez (2015) and, based on the data gathered from the piloting stage, it was considered suitable for the main project; in other words, the participants did not report any difficulties and it rendered the necessary data to gauge levels of metalinguistic knowledge. Therefore, the test did not need any revisions. The language in use test went through a series of drafts and was also piloted by a couple of native speakers of English to verify its linguistic accuracy. Inter-rater reliability for both tests was checked (cf. Section 3.2.3.4. Tests). The pedagogical materials designed for the study (SCOBAs) were also verified in advance for the piloting. Particular attention was given to the number of slides to ensure participants were able to understand the materials, work with them and that the time scheduled for participants to work with the SCOBAs was appropriate and realistic (given instructional constraints, for example). Based on the pilot study, some adjustments were implemented such as the number and level of participants, the length of the study (number of sessions) and a few changes in the manner in which the treatment was to be conducted (e.g., the specific implementation of communicated versus dialogic thinking sessions, timing, implementation of a pre lesson plan and tests timing). The pilot study also served to check the availability of infrastructure and resources needed (computer labs, recording and interview procedures). Overall, the pilot study confirmed the feasibility and usefulness of the instruments and helped adjust procedures for data collection.

The Bachelor’s program at UQROO consists of 10 semesters as follows: odd numbered semesters, i.e. 1st, 3rd, 5th, 7th and 9th are offered in the autumn and the even numbered semesters 2nd, 4th, 6th, 8th and 10th are offered in the spring. One key aspect of the admission process to this program is that it has no English proficiency level requirement for the applicants. That is, any student wanting to pursue a Bachelor’s degree in English even without having studied English formally before entering university can apply and get accepted. The university has this policy because they believe that every student must have the same chance to enter even if they did not have the opportunity to study English before university especially given that the English offered at pre-university level in public education is not strong enough to prepare them to enter the program. So, every year usually half of the applicants, 40 out of 80 (approximately) enter the program without knowing any English.
3.2.2. Participants

The study was conceived as a mixed-methods one (experimental and comparative) cross-sectional design with quantitative and qualitative components (Creswell, 2012; Liamputtong, 2013; Walliman, 2010). Participants from three different levels/semesters were invited to take part. Originally, 60 students agreed to participate in the study; however, throughout the 12 sessions required (see Table 2 below) some of them dropped-off and at the end of the study the total number of participants was 50 distributed in the following manner:

Table 2. Distribution of Participants

<table>
<thead>
<tr>
<th>Groups</th>
<th>5 sem</th>
<th>7 sem</th>
<th>9 sem</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>Experimental</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>17</strong></td>
<td><strong>13</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

The aim was to have a representative sample from different levels of the Bachelors Program in English Language. Participants’ ages ranged from 18 to 23 (Mean=22, SD=2.3, Median=21) with a distribution of males (N=18) and females (N=32) throughout the three levels. As mentioned previously, although some students begin their university course with no knowledge of English, some enter the university with some knowledge because they have taken private classes at academies or after school programs. Having selected the participants per semester allowed to organize them on the basis of their proficiency which was also confirmed through a proficiency test administered at the beginning of the study during the pre-test session (cf. Section 3.3.4.1. Sessions 1 & 2). The rationale for including participants from different levels was driven by a need to ascertain the extent to which this pedagogical approach is suitable across a range of proficiency levels. The main idea behind this is rooted in an understanding that, regardless of level of proficiency, learners should be able to grasp a given grammatical concept (e.g., tense and aspect), through use of the SCOBAs and verbalisation. However, to achieve this aim, it is crucial that the language in which the input is conveyed (i.e., the explanations used for the SCOBAs) does not represent a barrier for the students; hence, the decision to use the participants’ L1 for the materials explanations, a common practice in previous studies (see Literature Review). A specific innovation in my project is the evaluation to the degree to which participants might be
able to apply their conceptual understanding of tense and aspect to pedagogical thinking/practice. While it is acknowledged that there were also differences among the participants in relation to lesson planning and language teaching methodology, this was deemed to be an interesting aspect of the design because no explicit connection was made during treatment regarding a practicum element. Just as we wanted to examine the assumption that increased understanding of a grammatical concept might lead to increased accuracy in language use (even as the main focus was MLK development), we also wanted to investigate the extent to which that conceptual understanding might be used when participants were engaged in thinking for lesson planning (regardless of the teaching methodology level).

The context at the University of Quintana Roo for the Bachelor’s in English Language is that of a small community of students with an estimated 300 students across 10 semesters. According to the university records (Control Escolar Office), most of the students, about 95% approximately have Spanish as their L1 and the remaining 5% have other languages. The other languages are for example Maya which is a variety of the Mayan indigenous Language spoken in the Yucatan Peninsula, and Chinese for students who come from Belize where there is a large Chinese community and it is very common for them to come to Mexico to pursue their degrees. Thus, it can be said that students are mostly in a monolingual setting with few opportunities to practise the target language (i.e. English) in a natural setting. Therefore, they have to find ways to practise either speaking among themselves and their teachers, or using the language and multimedia labs and other resources they consider suitable for their particular learning needs.

According to the curricula, they have to take a series of core courses in which English is mandatory from second to ninth semester. From 2nd to 7th semester they take 8 hours of English per week; and from 8th to 9th semester they take 4 hours of English per week. In addition to English they have to take other core courses which are content knowledge courses like Grammar for Teachers, Methodology, Practicum, Linguistics, Psycholinguistics, Sociolinguistics, CALL, Philosophy of Education, Literature, History of the English Language, and Life and Culture in English speaking countries among others. They also have the option of taking elective courses from which they can choose French, Translation I, II & III, and Selected Topics which are courses ‘tailored’ according to the semester for which they are offered for example methodology for
teaching children or ESP. All core courses and electives of the Bachelor’s in English Language are taught in English with some exceptions in the first two semesters where every student at university has to take a series of mandatory courses, i.e. Logic, Research Methods, Mathematics, Reading and Comprehension in Spanish, Spanish Grammar, Introduction to Psychology, Universal Literature, and Society and Culture in Contemporary Mexico (see Appendix 1 containing the curricula of the program).

The way in which classes (English classes) are conducted are considered from the perspective of this study as ‘Traditional Instruction’; that is, classes are taught in the format of “PPP” (Present, Practice and Produce [PPP] Harmer, 2007) and are teacher centred. That is, teachers have the lead of the class and usually the format followed is that of the teacher as ‘the provider’ or ‘the one who possesses the knowledge’ and the learner is just a ‘receptor’ who is passively sitting waiting to be ‘fed’ as the recipient of the information (Skehan, 2003; Thornbury, 1999). Most of the classes, particularly English classes follow a very traditional format based on grammar teaching leaving no room for incorporating or trying different teaching approaches where students could work more independently (Maftoon & Sarem, 2012; Willis, 1990). It is very common for teachers to come in the classroom and just write on the board pedagogical grammar rules and straight away provide the students with instructions and assignments to do in a very traditional/classical way (e.g. ‘well, today we’ll study the formation of the past tense. First you have to know that in English there are regular and irregular verbs to form the past tense…’). Each teacher is free to use any textbook or teaching aids for their classes according to their own criteria, so there is no specified textbook for any of the levels. Teachers select and adapt their materials from various sources always instructed by the academic committees to follow the course syllabus according to the level they are teaching and relying on the materials as they think suitable for their classes.

Some exceptions of this occur from time to time when students work on presentations or do collaborative work in small groups with their peers; however, this is not applicable to all courses. In addition to the hours of English class with direct instruction with the teacher in the classroom students are encouraged to work on their own after class at the Self-Access-Centre (SAC) which is a multimedia language lab at the university but there is no way of forcing them to do it; so, it is not easy to encourage them to do extra work after class. In sum, students depend mostly on the hours of direct
English instruction received in the classroom; if they really want to reinforce their studies they must work on their own with the facilities the university offers them either at the library or the SAC.

Students can also benefit from the Languages Centre at the university where they have the opportunity to learn other languages in addition to English which is the ‘backbone’ of their program. At the Languages Centre they can choose from French, Italian, Portuguese, German, Mandarin, and Maya at no extra cost to their tuition and taking these courses can enable them to gain credits for their own program.

Another way the university has for supporting students in their learning process is through the academic exchange programs where students can apply to spend one or two semesters studying abroad. This gives them the opportunity to experience living in another country using the target language in its natural setting. However, from the approximately 300 students enrolled in the program, it is only possible for 3 or 4 of them per year to participate in these programs due to the high demand for those scholarships.

Following the ethical codes and regulations from the University of Essex, the participants were informed about the study details and invited to participate. Those who volunteered were happy to sign a letter of consent (see Appendix 4). Participants were not paid to take part in the study; however, they were offered snacks and refreshments after the sessions as a token of gratitude for their participation.

3.2.3. Instrumentation

Different instruments were used for the collection of data; these were interviews, tests and data from tutorials. The tutorials for both groups (control and experimental), which consisted of a suite of power point slides, were key instruments for the study and had a dual function; that is, as SCT suggests (Gal’perin, 1969 in Lantolf & Poehner, 2014; Negueruela-Azarola, 2003; 2013), to provide the input and content for knowledge enhancement as well as to elicit information which was used as data, e.g. verbalisation. In addition, questionnaires, interviews, lesson plans and tests were also used as sources of data to address the research questions.
3.2.3.1. Consent form

As required by the University of Essex, appropriate ethical procedures were followed and ethical clearance obtained. Before the study began, participants were given an informative session in which they received all the information concerning the study and its overall purpose. They were informed about the different components of the study, the different stages, number and length of the sessions and, as stated above, those happy to participate signed a consent form (see Appendix 4).

3.2.3.2. Biodata questionnaire

The Biodata questionnaire (see Appendix 5) was a means of gathering biographical and academic background information about the participants and it was written in Spanish to ensure that the participants could understand what was being asked from them and could answer as freely as they wished. The questionnaire contained demographic questions regarding age, gender, linguistic background (items 1, 2 & 3) and study habits and history (items 4, 5, 6 & 7). Some of the items (1, 4 & 5) were of multiple choice format and others were open-ended format (2, 3, 6 & 7) to allow the participants to provide more detail about their specific study habits and background.

3.2.3.3. Interviews

The short interview was structured and consisted of three questions regarding the use and form of the past tense in English. The interviews were held in Spanish in order to give the participants the opportunity to speak with freedom without language constraints which could have posed difficulties for those participants less skilled and proficient in English. There were only three open ended questions as follows:

1. What do you know about the past tense in English?
2. Do you know the difference between tense and aspect in English?
3. If you were to teach someone the concept of tense and aspect in English, how would you do it pedagogically?
The interviews (henceforward “Awareness Interviews” or “AI”) were conducted by the researcher and were audio-recorded for subsequent analysis.

3.2.3.4. Tests

Three tests were administered to gather information about the participants’ proficiency level, their ability to use the target features, and their metalinguistic knowledge (MLK) about the target concept features, i.e. asp...
36 items distributed in various sections and formats, i.e. open ended, match, gap fill, and was designed in a matched format for the pre and post testing conditions (see Appendix 7). The first section of the test, Part A consisted of 8 main questions. From these, items 1 to 4 were open ended, item 5 had four open sub questions, item 6 had three sub questions of gap fill type, item 7 had eight open sub questions, and item 8 had 9 sub questions of gap fill type. The second section, Part B consisted of 2 main questions both of which had 10 sub questions each. Some item examples are:

1. Verbs are words that enable us to talk about situations such as events and states and they intrinsically evoke certain characteristics in our minds; each of the verbs in ‘be happy’, ‘live in London’, ‘listen to music’, ‘kick a ball’ evoke specific inherent characteristics.

Please write the four verbal phrases (‘be happy’, ‘live in London’, ‘listen to music’, ‘kick a ball’) in the appropriate box, one has been completed as an example:

![Diagram](image)

**Figure 6 Example of MLK test item**

2. Describe the difference in meaning of the present perfect versus the simple past between the (a) and (b) members of the following pairs:

   (i) a. I’ve been in the army for two years  
      b. I was in the army for two years

   Since some of the items contained a subjective element for scoring (see Section 3.3.5.1.) inter-rater reliability based on 10% of the tests was checked with the collaboration of a language teacher; agreement was high at 85%.

   Furthermore, internal reliability tests were also conducted and these yielded the following results: pre-test alpha= .531 and post-test alpha= .729
3.3.3.4.3. Language in Use Test

As a measure to determine participants’ ability to use the target forms in context, i.e. ‘language use’, the Language in Use Test (LiU) was specially designed by the researcher for the purpose of this study (Appendix 8 for the complete test).

- LiU test was a 1300 words original story
- It contained 31 items in multiple choice format
- LiU had PRE and POST matched versions

The Language in Use test was a story based on the life of the researcher’s grandfather who was a musician and lived almost 100 years. It included 31 grammatical items regarding the different forms of tense and aspect so it allowed participants to activate knowledge on the target forms in terms of language use. From those 31 items, 21 were a combination of simple past, past continuous and present perfect; and the remaining 10 were distractors (present and future tenses); perfect and progressive aspectual forms were distributed throughout the 31 items.

During the process of design of the LiU test a native speaker of English was asked to complete the test as a way of checking that the test was accurate and sound in terms of English, that there was no ambiguity or that two answers were not possible. This test was first used during the pilot study (cf. Section 3.3.1.); the Cronbach’s Alpha factor reliability for the pre-test was .613 and for the post test was .731.

An extract of the test is presented below to illustrate its format and content:

Grandpa Emilio is 97 years old; he has had a nice life. He was born in the small town of Tinúm, Yucatán on August 8th, 1917 and arrived in Chetumal, Quintana Roo on February 10th, 1956. Who could have said that it (1) (to be/go) was going to be a mix of destiny, fate and nature blended together?!

It was during the 1920’s that he was brought by his uncle to live at the ‘Hacienda Henequenera X’nobó’. If he had remained at his hometown Tinúm, he might (2) (to develop) have not developed his love for music.

3.2.3.5. Lesson Plans

Lesson Plans were used as a measure to identify participants’ ability to apply or transfer metalinguistic knowledge to pedagogical thinking in relation to tense and aspect in English. These were considered as a complement to the awareness interview to address RQ2 (cf. Section 3.3.3.3. Interviews). Participants were asked to develop a
lesson plan in pairs with the only instruction of “helping their learners to talk about events in the past”. The lesson plans had no strict pedagogical format as evaluating methodological knowledge was not the focus of the task, the focus being to gauge the participants’ pedagogical thinking before and after treatment as reflected in the lesson plans. Participants had not been taught about lesson planning and did not have to follow and specific format for this purpose.

As discussed previously (cf. Section 2.1.1.), it is crucial for language teachers to possess a solid base of metalinguistic knowledge as it helps to guide learners in their learning process of grammatical concepts and all parts that form the language, e.g. speech, tenses, sentences, nouns, prepositions, adjectives, etc. (Borg, 1999, p. 97). Thus, transferring metalinguistic knowledge into pedagogical thinking is key in the process of English language teaching. From a Sociocultural theory stance, Lantolf & Poehner (2014) suggest that “praxis orientation depends on teachers’ classroom activity and their use of theoretical principles to orient classroom practices, only possible if teachers have a well-developed theoretical understanding of their content (language) and of learner development” (p.206). Therefore, metalinguistic knowledge is a fundamental part of teachers’ pedagogical knowledge as it provides a base for the theoretical concepts that lead teachers’ practice. As Negueruela-Azarola & García (2016) point out, “ELT teachers should promote systematic conceptual communication… reflection using concepts which also promote the internalization of new ideas… from this perspective, language teaching is essentially about personal transformation (defined as change based on conceptual development) both for learners and teachers” (p.298).

### 3.2.3.6. Tutorials

The tutorials were key components of the study both as intrinsic to the intervention and as a source of gathering data. Both groups, experimental and control, received a treatment which consisted of working with a series of materials specially designed for the purposes of this study. These instruments were based on Traditional Instruction (TI) for the Control group following the same teaching methodology as the teachers currently use at UQROO (cf. Section 3.3.3.5.1. Tutorial Control Group). The suite of materials for the Experimental Group (SCOBAs) was based on the novel pedagogical approach known as Systemic Theoretical Instruction (STI) (Lantolf &
Poehner, 2014, pp. 66-67), as detailed in Sections 2.3.3.1. and 3.3.3.5.2. Both sets of materials for the tutorials were developed and delivered using Power Point (Microsoft Office 2010) and are detailed below.

3.2.3.6.1. Tutorial Control Group

As mentioned previously, the Control Group Tutorial was based on the content and format of instruction used at the University of Quintana Roo (UQROO) to teach the target forms. This is considered Traditional Instruction for the purposes of this study (cf. Sections. 3.3.1. & 3.3.2.). The Programas de Estudio (Curriculum) and Paquetes Didácticos (Didactic packages) that are the teachers’ guides for conducting their classes at the university served as the baseline and source to guide the contents of the control group tutorial materials. The books used for this purpose were specifically grammar books and text books that the teachers commonly use to prepare their classes such as the series of Interchange (Richards, Hull, & Proctor, 2012); Passages (Richards & Chuck, 2008); The Grammar Book an ESL/EFL Teacher’s Course (Celce-Murcia & Larsen-Freeman, 1999a).

The tutorial consisted of 36 slides in which the concept of tense and aspect in English was explained followed by a series of exercises. Following what theorists of Sociocultural theory (see Appel & Lantolf, 1994; Swain & Lapkin, 1998; 2013; DiCamilla & Antón, 2012; Swain & Watanabe, 2013; Swain & Lapkin, 2000; Villamil & De Guerrero, 1996) have stated regarding the validity and relevance of the use of the L1 as a mediation tool in the language classroom, the materials were written in Spanish. For instance they explain that “…Within the sociocultural tradition the use of the L1 is considered as an important semiotic tool specially among L2 learners with the same L1 background and low level of proficiency in the second language…” (Antón & DiCamilla, 1998, p.316). Allowing the use of the L1 in our study helped participants with a low level of proficiency to cope better with the different activities as part of the treatment. As detailed in the Data Collection section (cf. Section 3.3.4.3 Sessions 4 & 5), although the number of slides was not exactly the same in both tutorials, the length of exposure to content and input was kept identical for both sets of materials (control and intervention).
In line with the classic ‘PPP’ (present, practise and produce) sequence, the materials consisted of presentation of the topic, then provision of exercises for practice and finally activities within a ‘freer’ production stage. Figure 7 provides examples of the contents of the control tutorial.

<table>
<thead>
<tr>
<th>Tiempo Pasado</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASPECTO</strong></td>
</tr>
<tr>
<td>Simple</td>
</tr>
<tr>
<td>Perfecto</td>
</tr>
<tr>
<td>Progresivo</td>
</tr>
<tr>
<td>Progresivo Perfecto</td>
</tr>
<tr>
<td>pasado</td>
</tr>
<tr>
<td>wrote</td>
</tr>
<tr>
<td>had written</td>
</tr>
<tr>
<td>was/were writing</td>
</tr>
<tr>
<td>had been writing</td>
</tr>
<tr>
<td>walked</td>
</tr>
<tr>
<td>had walked</td>
</tr>
<tr>
<td>was/were walking</td>
</tr>
<tr>
<td>had been walking</td>
</tr>
</tbody>
</table>

El pasado simple también utiliza los cuatro diferentes tipos de aspectos. Mira los ejemplos:

- **SIMPLE**: He **answered** the phone and **wrote** memos at work yesterday.
- **PERFECTO**: He **had started** the memo when the phone rang.
- **PROGRESIVO**: He **was writing** the memo when the phone rang.
- **PROGRESIVO PERFECTO**: He **had been writing** all morning.

<table>
<thead>
<tr>
<th>Sujeto + verbo principal + complemento</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(tiempo pasado)</strong></td>
</tr>
<tr>
<td><strong>EXAMPLE:</strong></td>
</tr>
<tr>
<td>1) This morning <strong>he read</strong> the newspaper;</td>
</tr>
<tr>
<td>2) while <strong>he took</strong> breakfast.</td>
</tr>
</tbody>
</table>

El aspecto **Simple** se refiere a eventos que son **permanentes o que nunca cambian** (i.e. estados o hábitos) como se describen con el presente simple.
Veamos algunos ejemplos utilizando los aspectos: simple, progresivo y perfecto.

This is my friend Maria.
* She lives (live) in Rome because
* She has worked (work) there since 2010.
* She is visiting (visit) Chile this summer.
* She has (have) a summer house there.

These are my friend Maria’s parents
* They are (am/is/are) retired now.
* In the summer time they live (live) in England and the winter time they live in Mexico and right now

* They are spending (spend) the summer time in England.

This is Patrick, Maria’s brother
* He is a professional photographer and
* He travels (travel) around the world taking extreme photography in far and exotic places. He has taken (take) photos of wild animals and dangerous natural events like volcanos’ eruptions.
* He is spending (spend) the summer with Maria in Italy.

Como se mostró previamente, todos los tiempos gramaticales (presente, pasado y futuro) pueden tener los diferentes tipos de aspecto (simple, progresivo y perfecto).

<table>
<thead>
<tr>
<th>TIEMPO</th>
<th>Simple</th>
<th>Perfecto</th>
<th>Progresivo</th>
<th>Perfecto Progresivo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presente</td>
<td>write/writes</td>
<td>have + en</td>
<td>being</td>
<td>have + en</td>
</tr>
<tr>
<td>Presente</td>
<td>write/writes</td>
<td>have + written</td>
<td>am/is/are writing</td>
<td>have + been writing</td>
</tr>
<tr>
<td>Presente</td>
<td>write/writes</td>
<td>have + walked</td>
<td>am/is/are walking</td>
<td>have + been walking</td>
</tr>
<tr>
<td>Pasado</td>
<td>wrote</td>
<td>had written</td>
<td>was/were writing</td>
<td>had been writing</td>
</tr>
<tr>
<td>Pasado</td>
<td>walk</td>
<td>had walked</td>
<td>was/were walking</td>
<td>had been walking</td>
</tr>
<tr>
<td>Futuro</td>
<td>will write</td>
<td>will have written</td>
<td>will be writing</td>
<td>will have been writing</td>
</tr>
<tr>
<td>Futuro</td>
<td>will walk</td>
<td>will have walked</td>
<td>will be walking</td>
<td>will have been walking</td>
</tr>
</tbody>
</table>

(Nota: En el aspecto perfecto progresivo se utiliza "have + been + doing".)
3.2.3.6.2. Tutorial Experimental Group

The tutorial for the experimental group consisted of the implementation of the two phases as suggested by STI (further details in Section 2.3.3. Phases of STI implementation). The first phase consisted of implementation of the Schema of a Complete Orienting Basis of an Action (SCOBA), and the second phase consisted of implementing the Verbalisation Action sub-phases known as, a) dialogic thinking and b) communicated thinking (Lantolf & Poehner, 2014, pp.63-67).
As discussed in Chapter 2, the SCT literature refers to this type of material as *Schema of a Complete Orienting Basis of an Action* (henceforth SCOBAs) as formulated by Gal’perin (1989, 1992) in Lantolf & Poehner (2014). Gal’perin’s rationale for the use of SCOBAs was to provide “a cognitive map that serves to orient learners whenever they engage in activities related to a concept” (Lantolf & Poehner, 2014; p.64). In other words, the aim of the SCOBA is to provide the learner with as complete as possible a picture, diagram, image, model or other combination of primarily non-linguistic representations of the concept to be learnt; in this case the concept of tense and aspect in English. Gal'perin suggested that learning new concepts only verbally implied an effort of memorisation for the learner which made the process of internalisation and learning slower and more difficult without a deep understanding of the concept. By contrast, “the SCOBAs are holistic representations of concepts and do not require any memorisation; they serve as materialised reminders of the knowledge required to engage in a particular action” (Lantolf & Poehner, 2014, p.64).

Thus, the tutorial for the experimental group consisted of a set of PowerPoint slides (SCOBAs) designed under Gal'perin’s premise. The SCOBAs were designed in conjunction with the thesis supervisor and represent some of the most innovative materials for teaching aspectual distinctions to date designed within this theoretical and methodological paradigm. For this purpose, we took as model the SCOBAs implemented in the previous studies by Gánem-Gutiérrez & Harun (2011) and Gánem-Gutiérrez (2016) as these were also based on the principles of Cognitive Linguistics. They served as key reference for ours, as our SCOBAs also aimed to facilitating a semantically grounded understanding of the concepts of tense-aspect, illustrating schematically the key concept of mental spaces, i.e. *boundedness*. Just as Gánem-Gutiérrez (2016) stated, we aimed to “afford a non-linear approach to explicit L2 input that considered the concept of tense-aspect making in a holistic manner” (p.33).

The complete set of SCOBAs in the experimental tutorial consisted of 52 slides to allow the participants to explore and understand the concept of tense and aspect in English.
Figure 8 Examples of slides containing the SCOBAs of the experimental group (3, 8, 17, 21, 39, 47).

It shows some examples of the slides (full set of slides can be found in Appendix 9).

<table>
<thead>
<tr>
<th>Propiedades inherentes de las situaciones</th>
<th>eventos</th>
<th>estados</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constitución Cualitativa</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implican cierto desarrollo interno y son más dinámicos que los estados</td>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
<tr>
<td>No implican ningún cambio interno</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contorno del tiempo</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tienen límites inherentes: se supone que llegan a un final en algún punto.</td>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
<tr>
<td>No tienen límites inherentes porque son vistas como situaciones permanentes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¿Qué tal lo hiciste?

**Eventos**
- Implican cierto desarrollo interno y son más *dinámicos* que los estados
- Tienen *límites inherentes*: se supone que llegan a un final en algún punto

**Estados**
- No implican ningún cambio interno
- No tienen límites inherentes porque son vistas como *situaciones permanentes*. 

8
Ejemplo: *leer* un libro

... en contraste también podríamos describir una situación como en progreso...
La interacción entre tipo de situación y aspecto gramatical

(ii) *Estados y aspecto gramatical*

**Aspecto progresivo**

- Ayer, Juan se **estaba siendo** miserable porque no se sentía bien.
- **Cuadro de perspectiva restringida:**
  - El estado es únicamente temporal.
  - Hacemos un ‘zoom in’ (ampliación/acercamiento) en el estado y así es como le imponemos límites.

Los significados principales que comunicamos cuando usamos el ‘presente perfecto’ o ‘retrospectivo’ son:

3. **Recientes:** cuando queremos enfocarnos en la noción de reciente podemos usar el perfecto en combinación con un elemento léxico como ‘just’: por ejemplo, “She has just finished her essay” (Ella **justo ha acabado su ensayo**).

Figure 8 Examples of slides containing the SCOBAs of the experimental group (3, 8, 17, 21, 39, 47).

Similar to the control group tutorial and following literature recommendations, (see Appel & Lantolf, 1994; Swain & Lapkin, 2013; DiCamilla & Antón, 2012) the experimental group tutorial (SCOBAs) were also written in Spanish for the pedagogical reasons previously explained.
**Verbal Action**

Within the pedagogical approach of STI, one fundamental part complementary to the implementation of the SCOBAs is that of *verbal action*. According to Gal’perin (1969) in Lantolf & Poehner, (2014, p.65) learners should be encouraged to rely on the principle of speaking which is… a reflexive activity that allows to externalise directed speech (of what has previously been internalized through the SCOBA) to the interlocutors in social interaction as well as at the self’. The relevance of incorporating this component in the study relates to the fact that “verbal action is simultaneously material and symbolic and therefore serves as the transition phase between action that relies on purely material or materialized support (e.g. the SCOBAs) and action that leads to the formation of a new object of action, namely abstraction” (Lantolf & Poehner, 2014, p.66). More specifically, verbal action alludes to two types of verbalisation accompanying the use of the SCOBAs as components of STI: 1) *Communicated Thinking*, and 2) *Dialogic Thinking* or *Self-Thinking*; (Haenen, 2001, p.163).

**Communicated Thinking: Paired Tasks**

Communicated Thinking refers to a specific form of verbalisation within STI. Communicated Thinking involves the participants having to communicate to others (as opposed to themselves) what they understood (or are understanding) from the SCOBAs in a comprehensible way. By speaking to others, the participants ideally have to make an effort to “appropriately use the new concept in a practical way as an important step in transferring the new knowledge and how to use it from the material to the mental plane” (Lantolf & Poehner, 2014, p.66).

Throughout some of the sessions of the study (*cf. Section 3.3.5. Data Collection Procedures*), participants had to engage in paired activities to accomplish a set of tasks like doing lesson plans and re-telling activities with their peers which implied verbalising. In other words, such verbalisation consisted of talking to each other overtly about the new concepts being learnt. By doing so, participants had the opportunity to explore and expand on the process of verbalisation which aimed to help them externalise, manipulate and appropriate the new knowledge, in this case, tense and aspect in English.
Dialogic Thinking

In contrast to Communicated Thinking, Dialogic thinking refers to *talk to oneself* and is also known as *private speech* (Lantolf & Poehner, 2014, p.66). This phase of STI procedures consists of allowing the learner to self-explore the SCOBAs while talking to one-self, i.e. using private speech about the new concept being internalized. During this stage the participants are encouraged to speak to themselves about their understanding deploying their knowledge about the new concept. Although the instructions for this phase of the study were to use ‘covert’ speech recording devices were unobtrusively located in order to capture any spontaneous overt speech that could arise from the practice.

3.2.4. Procedures for Data Collection

The first step of the procedures for data collection was to contact the participants creating a Facebook Group page where the researcher posted general information regarding the study. This was with the purpose of having a common space where both the participants and the researcher could ask questions freely at any time especially when all the participants reported having a Facebook account. Through this social network both the participants and the researcher had the opportunity to interact, ask questions and set convenient schedules for all involved.

Both the invitation letter and the consent form were presented in Spanish so the instructions and general information regarding the study were clear. The main procedures for data collection were conducted throughout twelve sessions spread over eight weeks during the autumn term of 2016 at the University of Quintana Roo.

When verbalisation was involved, the sessions were audio-recorded (Sessions 3, 6, 7, 8 & 9). For these purposes, the audio-recording devices were placed in the least intrusive place near the participants so all trace of spoken language was recorded.

For purposes of transcription of the recorded data a set of conventions adapted from Gánem-Gutiérrez (2004) (see Appendix 10 ) was used to produce protocols for data analysis. Since the treatment allowed the participants to use their native language to interact freely, extracts where they used Spanish were translated into English.
Table 3 provides a general overview of the data collection procedures and outlines the activities for each session and their timing. It also shows the mode of implementation for each task (i.e. individual work, dialogic thinking, paired work, communicated thinking). All data were collected by the researcher; exact details about the procedures are explained below.
Table 3: Overview of Data Collection Schedule

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
<th>Week 7</th>
<th>Week 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-14</td>
<td>19-22</td>
<td>26-30</td>
<td>3-7</td>
<td>10-14</td>
<td>17-21</td>
<td>31-4 nov</td>
<td></td>
</tr>
<tr>
<td><strong>S1 + S2</strong></td>
<td><strong>S3</strong></td>
<td><strong>S4</strong></td>
<td><strong>S5</strong></td>
<td><strong>S6</strong></td>
<td><strong>S7</strong></td>
<td><strong>S8</strong></td>
<td><strong>S9</strong></td>
</tr>
<tr>
<td>PRE-testing</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Post-testing</td>
</tr>
</tbody>
</table>

**Main Study Data Collection - Operationalization Schedule**

**EXPERIMENTAL group (STI)**

1. Consent form (15 min)
2. Biodata questionnaire (15 min)
3. Awareness Interview (15 min)
4. General proficiency Test (2 hrs)
5. Language in Context Test (2 hrs)
6. Metalinguistic knowledge test (2 hrs)

**Phase 1: SCOBAs**
- Participants work in pairs to elaborate a 45 min lesson plan whose objective is to help adult EFL students refer to talk about events in the past. (Audio recorded)

**Phase 2: COMMUNICATED THINKING**
- Participants work individually and tell an SCOBAs Communicated thinking (orally)
- While looking at the SCOBAs through paired work participants verbalise and make their understanding commensurate with the SCOBAs (Audio recorded).

**Phase 3: DIALOGIC THINKING**
- Participants work individually with the SCOBAs to practice Dialogic Thinking.
- Participants were instructed to look at the materials and explain to themselves (convert self-directed speech) what they understood as they were looking at the SCOBAs. (Audio recorded)

**CONTROL group (TI)**

- Participants work in pairs to elaborate a 45 min lesson plan whose objective is to help adult EFL students refer to talk tutorial about events in the past. (Audio recorded)
- Participants work individually and tell an SCOBAs Communicated thinking (orally)
- While looking at the SCOBAs through paired work participants verbalise and make their understanding commensurate with the CONTROL tutorial (Audio recorded).

**CONTROL group (TI)**
- Participants work in pairs with the CONTROL tutorial. In pairs they do the exercises contained within the tutorials (slides 32, 33, 34 & 35). (Audio recorded)
- Participants work individually with the CONTROL tutorial and do the exercises contained within the tutorial.

3.2.4.1. Sessions 1 & 2

Sessions one and two were considered the pre-testing stage of the study; the time allocated for completion of these two sessions was 6 hrs and 45 mins. During session one participants signed consent forms, completed the biodata questionnaire, the awareness interview and the general proficiency test. Session two was devoted to administering the Language in Use Test and the Metalinguistic Knowledge Test as a measure to identify their base levels of knowledge at the beginning of the study.

3.2.4.1.1. Consent form and Biodata questionnaire

Both instruments were administered in group form but completed individually and electronically.

3.2.4.1.2. Awareness Interview

The Awareness Interview (cf. Section 3.3.3.3.) was the first means of gathering information from the participants’ general knowledge regarding tense and aspect in English. The researcher conducted each one of the interviews with the participants individually and face to face. On average, the participants spent less than 5 minutes answering the three questions. Interviews were conducted in Spanish in order to give the participants the opportunity to speak freely and with ease in their native language as opposed to using English which for the less skilled ones would have been constraining and, therefore, disadvantageous. The interviews were audio-recorded and were transcribed verbatim for analysis.

3.2.4.1.3. Tests

Three tests were administered during sessions 1 and 2. The tests were the General Proficiency Test, Language in Use Test, and Metalinguistic Knowledge Test and were (computer-based) exactly the same for both groups of participants, i.e. control and experimental (cf. Section 3.3.3.4.). Two hours were allocated for each test and the General Proficiency Test was administered during session one after the consent form,
the Biodata Questionnaire and the Awareness Interview. The Language in Use Test and the Metalinguistic Knowledge Test were administered during the second session with two hours allocated for each one. As previously mentioned all three tests were in electronic format and were administered in test conditions on a group basis for each level, i.e. 5th, 7th and 9th semester.

Methodological triangulation was pursued by using different instruments to gather data and thus strengthen validity and reliability of the research design (Cohen, Manion, & Morrison, 2000). Therefore, data from interviews, tests (MLK, language in use), tasks (developing lesson plans) and verbalisation phases, was examined and taken into account to address the research questions.

3.2.4.2. Session 3

Session 3 was also considered a Pre-testing stage. During this session participants had to complete a lesson plan (cf. Section 3.3.3.5.) in pairs aiming to teach the past tense in English and they were given one hour to complete the task. There was no pre-stated format for the lesson plan; participants were simply instructed to “work with their partners in order to write down a lesson plan whose objectives were to teach/help EFL students talk about events in the past”. Participants therefore, worked in pairs at the computer and while they were writing and discussing their plans, they were also being audio-recorded. Once the plans were completed, these were sent electronically to the researcher for subsequent analysis (see below).

3.2.4.3. Sessions 4 & 5

Sessions four and five were devoted to working individually with the tutorials for both the experimental and the control groups. As previously mentioned (cf. Section 3.3.3.6.) two sets of computer-based tutorial materials were designed specifically for each of the two groups. Particular care was given to the length of exposure time for both groups to ensure comparability; in other words, both groups spent the same length of time working with the tutorial materials (one hour) for each session. As displayed in Table 3 (cf. Section 3.3.4. Procedures for Data Collection) each session had specific
activities allocated for each day; i.e. for sessions 4 & 5 looking at the tutorials on the computer. Specifically, the treatment involved having each one of the participants working individually and silently looking at the corresponding tutorial.

3.2.4.4. Session 6

Session 6, unlike the previous ones, was devoted to pair work for both groups. During this session the experimental group worked with their tutorial on the basis of communicated thinking as STI suggests. Participants had to work collaboratively with their peers commenting and trying to explain to each other their understanding while looking at the tutorial materials (slides). The ultimate goal of communicated thinking is to make participants verbalize their understanding in order to make it comprehensible to others, in this case to their peers (cf. Section. 2.3.3.2. Second Phase: Verbal Action). By contrast, the control group worked in pairs as well but on the basis of traditional instruction. They had to complete a series of grammar based exercises which were included within their tutorials (see). Figure 9 and Figure 10 provide examples of some of the slides participants worked on.
Figure 9 Examples of TI materials for participants to work in pairs (Control Tutorial slides 29 & 31)

Antes de continuar, recuerdas la diferencia entre ‘eventos’ y ‘estados’?

Eventos

Estados

Resumen (describiendo situaciones)

Figure 10 Examples of STI materials for participants to work in pairs (Experimental Tutorial slides 7 & 9)
As shown in Table X and explained above, session 6 lasted one hour. All verbalisation; that is, communicated thinking in the case of the experimental group and pair work talk, in the case of the control group was captured digitally (recorded) for subsequent transcription and analysis.

3.2.4.5. Session 7

Session 7 kept with the collaborative (pair-work) mode for both groups. Participants were instructed to develop a 45 minute lesson plan aimed to teach the past tense in English. The instructions for both groups (STI and TI) were exactly the same; “For today’s session, you will work with your partner (the same one you did the first lesson plan with) and together you have to write a second lesson plan. You need to imagine that you’re going to teach a 45 minute lesson to EFL adult students. The main objective of that lesson is to help your students talk about events that occurred in the past. You can use whatever format you wish for your lesson plan; when you finish please send it to me via email”.

Session 7 was also audio recorded for both groups for subsequent transcription and analysis purposes. The objective of having the participants doing a lesson plan was to assess the extent to which the knowledge (hopefully) being internalised from the tutorials might have an impact on how these trainee teachers subsequently conceptualise a language session where the focus is to help EFL students talk about past events. In other words, I wanted to investigate if (and to what extent) the treatment might have an effect on the participants’ application/use of metalinguistic knowledge about tense and aspect in relation to their pedagogical thinking as reflected in lesson planning.

3.2.4.6. Sessions 8 & 9

During sessions 8 and 9 participants worked again with their corresponding tutorials (control or experimental). Once again, both groups had the same time allocated for working on their tutorials, a total of 1 hour per session. During this session, participants from the experimental group worked on what STI calls *dialogic thinking* ‘mode’ which consists of working individually and through covert self-directed speech.
That is, participants were instructed to look at the materials and explain to themselves what they understood as they were flipping through the SCOBAs. A digital recorder was turned on next to each participant in order to capture speech in case they may utter any speech ‘overtly’. Participants from the control group also worked individually with their tutorials based on traditional instruction; the same length of time as the experimental group was allocated to the session (one hour) but they were not asked to verbalise in any way.

3.2.4.7. Sessions 10 & 11

Sessions 10 and 11 were devoted to post testing. During session 10 a post Awareness Interview (AI) was conducted on an individual basis (same conditions as for the corresponding pre-testing). 15 minutes were allocated for this; however, the average time was 5 minutes per participant.

Following the Awareness Interview, the Language in Use test was administered in the same conditions as for the pre-test.

The Metalinguistic Knowledge post-test was administered during session 11 and also followed the same conditions as during the pre-test (c.f. Section 3.3.4.1.4.). On average, participants completed the tests in one hour.

3.2.4.8. Session 12

During session 12 a delayed MLK was administered (one month after the post-test) in order to assess the lasting effect (or otherwise) of the treatment. As all other tests, this one was completed on an individual basis and under the same conditions as the pre- and post-tests. The delayed MLK test was identical to the post-test.

3.2.5. Procedures for Data Analysis

This section describes the procedures for data analysis organized on the basis of the three research questions (see cf. Section 3.2.). The study by Swain, Lapkin, Knouzi,
Suzuki, & Brooks, (2009) served as a crucial point of reference for some of the analyses in my study (e.g. languaging) although it must be noted I did not aim to replicate their work. Our design included pre- and post-testing and the focus herein was to examine the potential of the intervention (implementation of STI) to influence both the process of learning and the product from the intervention/treatment stage.

3.2.5.1. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ linguistic knowledge (MLK and language use) regarding aspectual distinctions in English (RQ1)

In order to investigate the effectiveness or otherwise of STI compared to TI to enhance EFL teacher linguistic knowledge (MLK and language use) with regard to aspectual distinctions in English as expressed by the target grammar features (simple past, past continuous and present perfect), it was necessary to look at the results of the various tests administered for this purpose (c.f. Section 3.3.4). In general terms, comparing the scores of the pre, post and delayed tests served as a quantitative measure both within participants as well as between control and experimental groups.

Based on previous findings reported in the literature as to the beneficial effects of STI for language learning (see for instance (Negueruela-Azarola, 2003; Swain, 2006; Swain, Lapkin, Knouzi, Suzuki, & Brooks, 2009) it was hypothesised that in this study the intervention group would perform better on at least some measures (e.g. MLK) than the control group. It has to be highlighted that, to the best of my knowledge and, as discussed in Chapter 2, no study to date has empirically compared STI to other pedagogical treatments while implementing the full Gal’perian cycle (Lantolf & Poehner, 2014, p. 66)

Thus, more specifically, to address RQ1 (potential enhancement of metalinguistic knowledge and language use) statistical analyses comparing the results in the scores of pre-, post- and delayed MLK and language use tests were conducted.
3.2.5.1.1. Proficiency Test

The proficiency test consisted of 100 items of multiple choice format which had the same value of 1 per item; an answer key accompanies the test (see Appendix 12). Answers in the proficiency test were therefore scored dichotomously in accordance with the answer key, that is, each correct answer was awarded one point. Independent Samples T-test was conducted to identify if there was any significant difference between groups (control vs. experimental) to ensure that both groups shared a similar proficiency level at the beginning of the study.

3.2.5.1.2. Metalinguistic Knowledge Test

For the MLK test, the scoring varied according to each of the two parts of the test (A and B). For part A, items 1, 2, 3, 4 and 5 followed a scoring system on a scale ranging from 0 to 3 (0= no evidence of metalinguistic knowledge or awareness, 3= fully accurate metalinguistic knowledge evidence) assessing the participants’ metalinguistic knowledge; the scoring system was adapted from Roehr & Gánem-Gutiérrez (2009) and scoring samples are provided in Table 4. Item 6 (a diagram with 3 sub-items to complete), item 7 (with 8 sub-items) and item 8 (a table with 9 sub-items to complete) were scored dichotomously; that is, they had either a right or wrong answer based on a prepared scoring sheet and each sub-item was worth 1 point. Part B contained two main items with a total of 10 sub-items with a value of one point each. The total maximum possible score was 57.

Table 4: Scoring example of MLK test

<table>
<thead>
<tr>
<th>Question example</th>
<th>Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you explain what aspect is?</td>
<td>“Aspect refers to how we, as speakers, use grammar to describe a particular view or perspective of a situation. Aspect is inherent in verbs (lexical aspect) and can also be marked grammatically, e.g. through inflections in verbs such as –ed or –ing”. (Gánem-Gutiérrez, 2016)</td>
</tr>
<tr>
<td></td>
<td>It is the grammatical form which shows how a speaker views a situation or event. Aspect can be expressed lexically (semantically) or grammatically (morphosyntactically)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scored examples</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>’No’</td>
<td>0</td>
</tr>
<tr>
<td>’Aspect is the speaker’s perception on an event and can be expressed both lexically and grammatically’</td>
<td>3</td>
</tr>
</tbody>
</table>
Where qualitative judgements were involved inter-rater reliability procedures were conducted, i.e., a second scorer blind marked 10% of the tests. Inter-rater agreement was 85% which was considered good according to Koch et al. (1977). Disagreements were resolved through discussion between the markers. Once inter-scorer reliability was established the researcher proceeded to mark all MLK tests.

3.2.5.1.3. Language in Use Test

The Language in Use test (pre- and post- matched versions) consisted of 31 items each; participants’ performance on these tests was scored dichotomously in accordance with a prepared answer key (Appendix 12); one point was awarded for each correct answer; therefore the total maximum possible score was 31.

For both the Language in Use and the MLK tests preliminary analyses, i.e., to check for normality of the data, were conducted. Thus, a series of one-sample Kolmogorov-Smirnov tests were carried out and these confirmed that the data did not differ significantly from a normal distribution, which warranted the use of parametric statistics. The alpha level $\alpha$ was set at .05. In addition, descriptive statistics such as means, standard deviation (SD) and percentages were generated for both groups. Independent samples $T$-tests were also conducted for the Proficiency tests to identify if there was any statistical difference between groups. Repeated measures ANOVA on MLK tests were also conducted to compare the scores obtained from the pre-, post- and delayed tests between groups (see also Results chapter).

3.2.5.2. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ ability to apply linguistic knowledge to pedagogical thinking (RQ2)

In order to determine whether or not STI was more effective than TI for enhancing EFL teacher trainees’ ability to apply linguistic knowledge from a pedagogical perspective data were gathered from two sources: 1) awareness interviews and 2) lesson plans.

The awareness interviews served to investigate the participants’ metalinguistic knowledge of the concepts of tense and aspect, their thinking and reflexion about these
concepts (before and after intervention) and how they might use this knowledge to help EFL learners talk about past events.

In addition to the awareness interviews, lesson plans conducted initially during session 3 prior to intervention, and after intervention during session 7 (cf. Section 3.3.4.5.) served to provide the researcher with some information about the participants’ overall ability to apply or transfer MLK to potential pedagogical thinking. The purpose of session 3, therefore, was to obtain a baseline for comparison, to assess if treatment may have had any positive effect on participants in pedagogical terms (lesson planning in session 7).

I will first explain the awareness interviews analyses procedures followed by lesson plans rubric and finally lesson plans languaging.

3.2.5.2.1. Awareness Interviews

The first step involved verbatim transcription of the pre and post awareness interviews to produce protocols for analysis (see example of interview excerpt data and transcription in Appendix 13). The answers for each participant were then scored following the Roehr & Gánem-Gutiérrez (2009) scheme (cf. section 3.3.5.1.2. see Table 4). The scoring scheme was based on a 0-3 points scale (Table 5) reflecting the participants’ knowledge with regard to tense and aspect (scored examples are shown in Table 6).

<table>
<thead>
<tr>
<th>Value</th>
<th>Level of sophistication of the answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No evidence of knowledge</td>
</tr>
<tr>
<td>1</td>
<td>Little or minimal idea about the concept</td>
</tr>
<tr>
<td>2</td>
<td>Basic level of description and/or explanation regarding the concept with simple, non-sophisticated use of (meta) language</td>
</tr>
<tr>
<td>3</td>
<td>Full description/explanation of the target concepts using appropriate metalanguage</td>
</tr>
</tbody>
</table>

Table 6: Awareness Interview with Answers and Scoring Scheme

<table>
<thead>
<tr>
<th>Questions</th>
<th>Key</th>
<th>Examples of answers</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What do you know about the past tense?</td>
<td>The past tense is the grammatical tool which allows the speaker to talk about previous/past events</td>
<td>EX. 1 &quot;...I don’t know anything about it...&quot;</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EX. 2 &quot;...Past tense is the time in English...&quot;</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EX. 3 &quot;...It came to my mind past simple, present perfect, past continuous... past simple refers to events that finished in the past&quot;</td>
<td>2</td>
</tr>
<tr>
<td>past tense in English?</td>
<td>and locate them in chronological time. It can be formed by inflecting the verbs or the use of certain auxiliaries (i.e. did) for this purpose; ex. watch-watched for regular verbs; or speak-spoke for irregular verbs.</td>
<td>and that were made during a specific time; present perfect refers to events that started in the past and that continue up in the present; past continuous refers to events/actions that were doing or interrupted in the past while other events were doing at the same time...“</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>2. Do you know the difference between tense and aspect in English?</td>
<td>Tense refers to the grammatical tool/marker that allows us to communicate/talk about events and locate them in relation to time. In other words, tense is the grammatical tool that allows us to ground or locate situations in time (non-retrospectively or retrospectively). Aspect refers to how we, as speakers, use grammar to describe a particular view or perspective of a situation. Aspect is inherent in verbs (lexical aspect) and can also be marked grammatically, e.g. through inflections in verbs. English has two aspectual distinctions: non-progressive aspect (expressed by +ed) and progressive aspect (expressed by being).</td>
<td>EX. 4 &quot;The past tense tells us when the action happened in time; like yesterday or last week in a time-line. There are different types of past: for the simple past we use the verbs depending if they are regular or irregular. If they are regular we add ed- at the end and if they are irregular we change the form of the verb. And there is also the past continuous or the past perfect that uses auxiliaries like the verb had“.</td>
<td></td>
</tr>
<tr>
<td>3. If you were to teach someone the concept of tense and aspect in English, how would you do it pedagogically?</td>
<td>There is no single answer for this question; the score awarded takes into account the level of sophistication in relation to the ability to transfer metalinguistic knowledge into pedagogical thinking.</td>
<td>EX. 4 &quot;...The tense and the aspect are two different things but they complement each other. Tense is when the action happens; it can be present, past or future. And the aspect is more about how that action happened, is the perception of the event; like something that was happening or like something that happened and finished in a very specific moment; that is why the aspect can be progressive with the use of the verbs in gerund, or simple with the verb in past tense, or participle for example...“</td>
<td></td>
</tr>
</tbody>
</table>

As pointed out before, given that scoring the interviews involved an element of subjectivity, 10% of all data of this type was scored by a second rater in order to check inter-rater reliability. Agreement between the two coders was 85%. Once inter-rater
reliability was established, the researcher proceeded to score all interview protocols. Following scoring of the interviews, descriptive statistics were generated and later repeated measures ANOVA, and t-tests were also calculated.

As a complementary way of exploring more in depth the quantitative results from the awareness interviews, we looked at specific cases in detail from a qualitative point of view to trace the evolution of individuals’ improvement in terms of pedagogical thinking. The excerpts for examination were selected based on the quality of their answers which was also reflected in their contrasting scores from pre- to post-testing (see Table 7 for some case examples).

Table 7: Examples of Responses of Awareness Interviews

<table>
<thead>
<tr>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. What do you know about the past tense in English?</strong></td>
<td><strong>AI-EXC-Q1B(P09CTR5)</strong></td>
</tr>
<tr>
<td>“The past tense is what happened and is finished now”</td>
<td>“Past tense is when we talk about events that happened in the past time”</td>
</tr>
<tr>
<td><strong>AI-EXC-Q1B(P10EXP5)</strong></td>
<td><strong>AI-EXC-Q1A(P10EXP5)</strong></td>
</tr>
<tr>
<td>“It is a tense that indicates an action in past, something that was conducted and had an end in time”</td>
<td>“The past is a grammatical form that we use to indicate actions that took place in the past time. It can be in the form of simple past, past perfect and past progressive”</td>
</tr>
<tr>
<td><strong>2. Do you know the difference between tense and aspect in English?</strong></td>
<td><strong>AI-EXC-Q1B(P05CTR7)</strong></td>
</tr>
<tr>
<td>“No”</td>
<td>“actually I’ve never thought about it; I don’t know the difference between tense and aspect”</td>
</tr>
<tr>
<td><strong>AI-EXCQ2B(P07EXP7)</strong></td>
<td><strong>AI-EXCQ2A(P08EXP9)</strong></td>
</tr>
<tr>
<td>“No”</td>
<td>the tense are the moments in which the activities occur, for example it could be present, future or past and the aspect is how we perceive those activities, they could be progressive, simple and past progressive also, they are related because according to those situations time and aspect is the way that people perceive an activity</td>
</tr>
<tr>
<td><strong>3. If you were to teach someone the concept of tense and aspect in English, how would you do it pedagogically?</strong></td>
<td><strong>AI-EXCQ3B(P08EXP5)</strong></td>
</tr>
<tr>
<td>“I will begin with the structure, the subject then you have to put a verb in past tense and then complete sentence and then I will explain that there are regular and irregular verbs and how these change and I will explain the structure of the past tense and I will put examples of the real life and that’s all”</td>
<td>“First, I will ask them about their recently activities they made, then I will write those examples in past tense, then I will explain them the structures with diagrams and images, I will explain the verbs regular and irregular and the forms in interrogative and negative. I will tell them that tense is the time and aspect is how we view events.”</td>
</tr>
</tbody>
</table>

Once awareness interviews were analysed quantitatively and qualitatively, I proceeded to analyse the lesson plans.
3.2.5.2.2. Lesson Plans

The second element considered to answer RQ2 were the lesson plans which were done during pre and post treatment and served to provide different types of data.

1) Participants’ pedagogical knowledge/thinking displayed in the actual lesson plans; i.e. Depth of knowledge (DOK) of the topic (tense and aspect) and how such knowledge was used for pedagogical purposes. A rubric adapted for this purpose was used to assess the lesson plans in a systematic way. The rubric consisted of two main criteria as described below.

2) Languaging Episodes (LEs) which were identified from the audio recorded interaction between participants while developing the lesson plans and will be described below. I will first address the analyses procedures for the lesson plans and secondly, I will detail the analyses of the verbalisation (recorded interactions while participants developed their lesson plans).

**Lesson Plans Rubrics**

The lesson plans were analysed following a rubric which was adapted for this purpose from various sources (Ur, 2010; Scrivener, 2011; Brown & Heekyeong, 2015) in order to assess the extent to which the participants were able to transfer or apply MLK to pedagogical use. As mentioned before (cf. Section 3.3.3.5. Lesson Plans) participants were given one hour during sessions one and seven (cf. Section 3.3.4.) to write a lesson plan in pairs having been given the following instructions: “work with your partner and write down a 45 minute lesson plan whose objectives are to teach/help EFL students talk about events in the past”.

The purpose of this task was exclusively to explore if, and to what extent, participants might transfer or apply the knowledge/understanding/thinking gained through the treatment materials to the conceptualisation of lessons (i.e., lesson planning). In other words, I wanted to see if having (hopefully) gained further understanding about tense and aspect in English, this deeper understanding might have had an impact on how they thought about their teaching of simple past, past continuous and present perfect. Therefore, the rubric for scoring the lesson plans focused on the
potential use of metalinguistic knowledge rather than teaching methodology as such which was outside the remit of the present project.

The rubric (Table 8) contained two main criteria which looked at 1) Depth of metalinguistic knowledge on tense and aspect; and 2) Evidence of metalinguistic Transfer to Pedagogical Thinking which were rated on a scale from 0 to 3, similarly to the approach taken for the Awareness Interview as shown in Table 5.

Table 8: Rubric for Scoring the Lesson Plan

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Not Effective</th>
<th>Developing</th>
<th>Acceptable</th>
<th>Exemplary</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth of MLK (tense and aspect)</td>
<td>Null or weak evidence of MLK on tense and aspect</td>
<td>MLK is present with a minimal description about the concept, needs more development</td>
<td>MLK is at a basic level of description and/or explanation with simple non-sophisticated use of (meta) language</td>
<td>MLK is correctly and fully described/explained with the precise concepts/definitions of tense and aspect</td>
<td></td>
</tr>
<tr>
<td>Evidence of MLK transfer to Pedagogical Thinking</td>
<td>No evidence that understanding of the target concept is applied to practice as reflected in the lesson plan</td>
<td>Evidence that little or minimal understanding of the target concept is applied to practice as reflected in the lesson plan</td>
<td>Evidence that a basic understanding of the target concept is applied to practice as reflected in the lesson plan</td>
<td>Evidence that a full/deep understanding of the target concepts are applied to practice as reflected in the lesson plan</td>
<td></td>
</tr>
</tbody>
</table>

An example of an actual lesson plan is shown below (Table 9) with its respective rubric of evaluation to exemplify the process of analysis and scoring. The evidence of pedagogical application of the concepts of tense and aspect identified within the lesson plans are in underlined italics.
Table 9: Example of Lesson Plan marked with rubric included

<table>
<thead>
<tr>
<th>Lesson Plan (PRE)</th>
<th>Lesson Plan (POST)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching past tense to adults</strong></td>
<td><strong>Lesson Plan (POST)</strong></td>
</tr>
<tr>
<td>45 minute lesson plan</td>
<td>(P03+04EXP9sem)</td>
</tr>
</tbody>
</table>

1. 1. The teacher will write past tense sentences on the board.
2. 2. Students will put the sentences in order to make a short text. (10 min)
3. 3. Both the teacher and students will check the text. (5 min)
4. 4. The teacher will ask what they see different in the verbs that are in the present and in the past. (5 min)
5. 5. The teacher will explain the rules for regular past tense verbs (-ed) and some irregular verbs. (10 min)
6. 6. The teacher will ask some questions about what they did yesterday, so students have to use past tense verbs. (5 min)
7. 7. The teacher will project a video and students have to write down only the verbs in the past that they hear. (3 minutes)
8. 8. With the verbs written, students have to write a paragraph or short text using the verbs. So, this is going to be their evaluation for past tense verbs. (7 min)

<table>
<thead>
<tr>
<th>Rubric</th>
<th>PRE Points</th>
<th>POST Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria</strong></td>
<td><strong>Not Effective 0</strong></td>
<td><strong>Developing 1</strong></td>
</tr>
<tr>
<td>Depth of MLK (tense and aspect)</td>
<td>Null or weak evidence of MLK on tense and aspect</td>
<td>MLK is evidently present in a minimal idea about the concept, still needs more development</td>
</tr>
<tr>
<td>Evidence of MLK transfer to Pedagogical thinking</td>
<td>No evidence that understanding of the target concept is applied to practice as reflected in the lesson plan</td>
<td>Evidence that little or minimal understanding of the target concept is applied to practice as reflected in the lesson plan</td>
</tr>
</tbody>
</table>

Scores from pre- and post- awareness interviews as well as the lesson plans were then used to assess the levels of pedagogical application of the target concepts as a result of treatment. Since lesson plans were done in pairs, the scores given were the same for both participants. Descriptive statistics were generated followed by repeated measures ANOVA to determine the level of improvement (or otherwise) after intervention.
Scores from pre- and post- lesson planning sessions were then used to assess the levels of pedagogical application of the target concepts as a result from treatment. Since lesson plans were done in pairs, the scores given were the same for both participants. Descriptive statistics were generated followed by repeated measures ANOVA to determine the approximate level of improvement after intervention.

**Lesson Plans Verbalisation (Languageing Episodes)**

Following the analyses of the lesson plan rubric scores, I proceeded to analyse the verbalisation participants produced while interacting with each other during this task. From this verbalisation, and based on my adaptation of Swain’s (2006) ‘language’ concept; two types of Languageing units, i.e. fragments of dialogue where language is used for cognitive purposes were identified: 1) *Metalinguistic Related Episodes* (MREs) when participants used language to discuss issues in relation to the target concepts and/or forms (e.g. expanding on them, clarifying meanings and explaining grammar to each other); and 2) *Pedagogically Related Episodes* (PREs) when participants used language to discuss pedagogical issues for the lesson plan.

A Languageing Episode began when one of the participants started to focus on (i.e., discuss) primarily either language or alternatively pedagogical aspects on how to explain or approach a lesson relating to the concepts of tense and aspect. Thus, one protocol (an actual transcript of communicated thinking) could contain several Languageing episodes. The following (Table 10) provides a more detailed description of both MREs and PREs.

<table>
<thead>
<tr>
<th>Table 10: Languageing Episodes (definitions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapted from Fortune &amp; Thorp (2001) and Swain et al. (2009)</td>
</tr>
<tr>
<td><strong>Definition</strong></td>
</tr>
<tr>
<td><strong>Metalinguistic Related Episodes (MREs)</strong></td>
</tr>
<tr>
<td>• Participants give each other ‘hints’ or ‘clues’ on a given aspect of language relying mostly on explicit knowledge of metalinguistic terms.</td>
</tr>
<tr>
<td>• Describes episodes which focus on choice of tense, formal construction of a verb phrase and choice between gerund and infinitive; or any other grammatical allusion.</td>
</tr>
<tr>
<td><strong>Pedagogical Related Episodes (PREs)</strong></td>
</tr>
<tr>
<td>• Alludes to pedagogical considerations and objectives being considered within the lesson plan, decision making, negotiation of content, e.g. whether to use pedagogical rules or diagrams for explanations.</td>
</tr>
<tr>
<td>• Giving instructions, provision of feedback, opening, wrap-up &amp; closure of activities</td>
</tr>
</tbody>
</table>
Table 11 contains examples of language episodes captured during lesson plan elaboration. As it can be observed, several turns can represent one single type of episode (MRE or PRE). On the far right column we can see the type of episode found during the analyses (MREs and PREs). Interrater reliability was checked with a second reader with an agreement of 85%.

<table>
<thead>
<tr>
<th>Turn</th>
<th>Participant</th>
<th>Languageing</th>
<th>Type of Episode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>Podemos decir que el aspect nos ayuda a describir la visión y percepción de una situación particular (…)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>En el tiempo (…) ¿No? Eso es referente al aspect (…) y ¿referente al tiempo? Pues es un marcador gramatical que nos sirve para ver ehh (…) si estamos en presente (…) pasado o futuro (…) no?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>sí</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>Ahh (…) bueno (…) entonces como tó dijiste el ‘aspecto’ se refiere a la parte de ‘continuidad’ que se le da a los verbos (…) por ejemplo (…) eehhmm existen dos tipos de aspectos que serían el aspecto no-progresivo y el aspecto progresivo (…) Cuando se refiere al aspecto no-progresivo es que se refiere (…) significa que un verbo no continúa en el tiempo (…) por ejemplo ‘Aarón leyó tres libros el mes pasado’ esa oración tiene un aspecto no-progresivo ya que el verbo denota una finalidad en el tiempo que es el pasado (…) ‘lo empezó a leer y terminó’ entonces esa es la parte del aspecto no-progresivo (…) y pues la parte del aspecto progresivo significa que continúa en el tiempo como el ejemplo de ‘Aarón estaba leyendo un libro cuando llegó’ (…) esa oración denota que Aarón se pudo haber seguido leyendo el libro, pero no denota una finalización de la acción en el pasado, entonces este(…) el aspecto progresivo significa que continúa en el tiempo(…) no tiene un punto final(…) Eso es concerniente al aspecto y al tiempo (…) ¿No? ¿Sí? Otro ejemplo del aspecto gramatical ó del aspecto que se refiere a los verbos (…) es que ehh (…) por ejemplo cuando decimos ‘mi hermana estaba trabajando actualmente para la universidad’ ehh en esta oración digo que mi hermana (…) oséa se mantiene la duración del verbo de la frase verbal y no tiene un punto de finalización (…) ese sería el aspecto progresivo porque continúa ó es progresivo en el tiempo y no tiene un límite (…)</td>
<td>MRE</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>Es lo que no sé (…) si sólo el tiempo (…) si vamos a poner sólo el tiempo y ¿Qué enseñar? ‘tense and aspect’ (…) ¿Así en español? ¿Hacer qué?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>Meñuíh seria (…)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>Ó hacer</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>Objetivos (…) lograr que los estudiantes comprendan las diferencias entre ‘aspect and tense’</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td>Comprendan la diferencia (…)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>B</td>
<td>Aja que comprendan la diferencia entre ‘tense and aspect’</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>A</td>
<td>Podríamos poner entre el ‘time’ igual para que se pueda diferenciar para saber ¿cuál es la diferencia entre el aspecto y el tiempo gramatical? Ok (…) ¿la actividad?</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>La actividad</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>A</td>
<td>¿Primero una explicación? ¿ó no?</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>B</td>
<td>sí</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>A</td>
<td>Una explicación y después ya un ejercicio (…) no</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>B</td>
<td>Si (…) Una explicación y un ejercicio para identificar el aspecto de ciertas oraciones</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>A</td>
<td>Si pero (…) ooh si (…) pero lo tenemos que poner detallado ¿No? Explicar primer ahmmm ¿qué es el tiempo gramatical? ¿Qué es el tiempo? ¿Explicar la diferencia (…) ¿No?</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>B</td>
<td>Si (…) explicar la diferencia entre ‘tense and aspect’ (…) y realizar ejercicios</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>A</td>
<td>Ejercicios de (…) se harán ejercicios (…) siento que es algo muy general (…) si (…) así como identificando en una oración ¿qué? ¿Cuáles son las diferentes partes dela oración ó algo así? Por ejemplo si yo digo ehhm si yo digo “mi hermano trabajó” (…) oséa le vamos a poner varias oraciones que digan cuál es el ‘tiempo’ (…) cuál es el ‘tense’ y cuál es el ‘aspect’ ¿No?</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>B</td>
<td>realizarán ejercicios que contendrán oraciones para que los estudiantes diferencie (…) ¿indiquen? ¿Identifiquen!</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>A</td>
<td>¿Identifiquen!</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>B</td>
<td>Para que los estudiantes identifiquen (…) las partes gramaticales de la oración</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>A</td>
<td>Las partes gramaticales</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>B</td>
<td>Para que los estudiantes identifiquen los aspectos (…) no! Las partes de la oración</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>A</td>
<td>Por ejemplo (…) ¿Podemos el ejemplo?</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>B</td>
<td>‘Si!’ Ejemplo ‘Laura está corriendo por el bosque’</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>A</td>
<td>‘bosque’ ok (…) entonces vamos a poner: ‘Time present’</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>B</td>
<td>‘continuamos’ ¿No?</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>A</td>
<td>Ahh (…) perdón no</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>B</td>
<td>Ahhhh pero está corriendo!</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>A</td>
<td>Pero eso es el ‘tense’</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>B</td>
<td>Ahh (…) ‘Tense Present Continuous’</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>A</td>
<td>Y después el ‘aspect’</td>
<td></td>
</tr>
</tbody>
</table>

95
¿Progresivo?

Si (…) entonces (.) vamos a hacer (.) bueno (.) les vamos a dar una serie de oraciones y ellos tienen que identificar esas tres partes (.) ¿Ponemos la (.) la (.) la cuestión de ´estado y (…)"

Evento? ¿Estaría bueno (.) pero ¿aquí cuál sería? (…) ¿Sería el de estado?

¿O event? Ok (.) dejémonos así (…) Ok, ¿quién más, qué más vamos a poner? Así nomás (.) que ellos identifiquen nadamás la diferencia entre el tense y el aspect (.) ya está siendo hecha por los estudiantes (.) ¿No?

TOTAL NUMBER OF EPISODES: MREs: 2 , PREs: 2

---

GLOSS

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>We can say that the aspect help us to describe the vision and perception of a situation in particular (…)</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>In the tense (.) right?</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>Ahh (.) good (.) then as you said the ‘aspect’ refers to the ‘continuity’ part that we assign to verbs (.) for example (.) eehmmm there are two types of aspects that would be the non-progressive aspect and the progressive aspect (…) When it refers to non-progressive aspect it refers (.) means that a verb does not continue in time (…) for example “Aaron read three books last month” that sentence has a non-progressive aspect as the verb denotes and ending point in the time that is the past tense (.) ‘he started to read it and finished’ so that is the part of non-progressive aspect (…) and so the part of the progressive aspect means that it continues in time like the example of “Aaron was reading a book when I arrived” (.) that sentence denotes the ending of an action in the past (.) so this (.) the progressive aspect means that it continues in time (.) it does not have an ending point (.) That is concerning time and aspect (.) isn’t it? Right? Another example of the grammatical aspect or from the past that refers to verbs (.) is that eeh (.) for example when we say “my sister (.) I mean the duration of the verb of the verbal phrase remains and it does not have an ending point (.) that would be the progressive aspect because it continues or is progressive in time and does not have a limit (…)</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>That is what I don’t know (.) if only the tense (.) if we are going to put only tense and what to teach? tense and aspect (…) like that in Spanish? Do what?</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>Mmmhh would be (.)</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>Or to do</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>Objectives (…) to make students understand the differences between ‘tense and aspect’</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td>To understand the difference (…)</td>
</tr>
<tr>
<td>10</td>
<td>B</td>
<td>Aha, to understand the difference between ‘tense and aspect’</td>
</tr>
<tr>
<td>11</td>
<td>A</td>
<td>We could put between the ‘time’ so they can differentiate to know what is the difference between aspect and grammatical tense? Ok (.) the activity?</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>The activity?</td>
</tr>
<tr>
<td>13</td>
<td>A</td>
<td>First and explanation? Isn’t it?</td>
</tr>
<tr>
<td>14</td>
<td>B</td>
<td>Yes</td>
</tr>
<tr>
<td>15</td>
<td>A</td>
<td>An explanation and after an exercise (…) isn’t it?</td>
</tr>
<tr>
<td>16</td>
<td>B</td>
<td>Yes (.) an explanation and an exercise to identify the aspect of some sentences?</td>
</tr>
<tr>
<td>17</td>
<td>A</td>
<td>Yes but (.) ohh yes (.) but we have to put it detailed isn’t it? Explain first ahmmm what is the grammatical tense? What is tense? Explain the difference isn’t it?</td>
</tr>
<tr>
<td>18</td>
<td>B</td>
<td>Yes (.) explain the difference between ‘tense and aspect’ (…) and make exercises</td>
</tr>
<tr>
<td>19</td>
<td>A</td>
<td>Exercises of (.) exercises will be done (…) I feel is something very general (…) yes (…) like identifying in a sentence what? Which are the different parts of a sentence or something like that? For example if I say eehm if I say “my brother worked” (…) I mean we are going to give them a series of sentences saying which is ‘tense’ (.) and which one is ‘aspect’ right?</td>
</tr>
<tr>
<td>20</td>
<td>B</td>
<td>They will make exercises containing sentences so the students can differentiate (…) indicate? identify?</td>
</tr>
<tr>
<td>21</td>
<td>A</td>
<td>Identify!</td>
</tr>
<tr>
<td>22</td>
<td>B</td>
<td>So students identify (…) the grammatical parts of the sentence</td>
</tr>
<tr>
<td>23</td>
<td>A</td>
<td>The grammatical parts</td>
</tr>
<tr>
<td>24</td>
<td>B</td>
<td>So the students can identify the aspects (.) no! the parts of the sentence</td>
</tr>
<tr>
<td>25</td>
<td>A</td>
<td>For example (.) do we put the example?</td>
</tr>
<tr>
<td>26</td>
<td>B</td>
<td>Yes! Example “Laura is running in the forest”</td>
</tr>
<tr>
<td>27</td>
<td>A</td>
<td>‘forest’ ok (.) then let’s put “Time: present”</td>
</tr>
<tr>
<td>28</td>
<td>B</td>
<td>‘continuous’ (no)?</td>
</tr>
<tr>
<td>29</td>
<td>A</td>
<td>Ahh (.) sorry no</td>
</tr>
<tr>
<td>30</td>
<td>B</td>
<td>Ahh but it’s running!</td>
</tr>
<tr>
<td>31</td>
<td>A</td>
<td>But it’s the ‘tense’</td>
</tr>
<tr>
<td>32</td>
<td>B</td>
<td>Ahh (.) ‘Tense: Present Continuous’</td>
</tr>
<tr>
<td>33</td>
<td>A</td>
<td>And after the ‘aspect’</td>
</tr>
<tr>
<td>34</td>
<td>B</td>
<td>Progressive</td>
</tr>
<tr>
<td>35</td>
<td>A</td>
<td>Yes (…) so (.) let’s to (.) well (.) we are going to give them a series of sentences and they have to identify those three parts (.) we put the (.) the (.) the (.) the thing of the ‘states and (…)</td>
</tr>
</tbody>
</table>

TOTAL NUMBER OF EPISODES: MREs: 2 , PREs: 2

96
Once MREs and PREs were identified, they were counted to ascertain the amounts of each type of episode per dyad. The scores for both groups were analysed statistically. Since the data pertaining to MREs and PREs were found to significantly deviate from normal data distribution, non-parametric Mann-Whitney U and Friedman tests were conducted to compare control and experimental groups. In addition, Pearson Correlation analyses were conducted to determine the extent to which groups performance could have been correlated with the type of activities carried out, and the amount of verbalisation registered. These analyses served to compare the overall performance between groups, and to determine the potential effects of the treatment on transfer of the target concepts to a pedagogical plane.

Furthermore, and in line with Sociocultural theory thinking, this also allowed us to determine the extent to which the communicated thinking phase (verbalisation) through collaborative work helped participants (experimental group) to enhance their metalinguistic and pedagogical thinking with regards to the concepts of tense and aspect. Although there was no difference between both groups in terms of instructions or tasks for developing their lesson plans, it was expected that because of their treatment during session 6 (which included the communicated thinking for the experimental group) a difference in performance might have occurred. It was hoped that the amount and type of languaging episodes would correlate with the scores of the lesson plans which were obtained through, 1) evidence of MLK displayed; and 2) evidence of MLK transfer to pedagogical thinking.

Looking at the protocols of the lesson plans languaging not only provided the type and amount of metalinguistic and pedagogical related episodes, but it also provided extra information about participants’ general languaging during communicated thinking. That is, from the protocols it was possible to trace the exact number of turns and words per participant, which allowed us to build a more complete picture of the potentialities of verbalisation while students interacted with each other. To further confirm any possible relation/positive outcome between verbalisation phases and lesson planning in terms of pedagogical thinking, Pearson correlations were conducted to verify this.
3.2.5.3. Insights into STI based on an analysis of languaging: The case of the top scorers from the experimental group (RQ3)

In order to gain a deeper understanding of the potential of STI and taking the work of Gánem-Gutiérrez (2016) as a key reference for this type of analysis, I first proceeded to identify the highest achievers from the experimental group by drawing on the quantitative data generated for RQ1, i.e. based on the scores for the metalinguistic knowledge (MLK) and language in use (LiU) tests. Once these participants were identified, I also looked at their awareness interviews (and scores); lesson plans (and scores in terms of metalinguistic knowledge (MLK) and pedagogical thinking (PDK)). In order to contextualize the profiles of the experimental group case studies for this research question, I first conducted a comparison between them and the two top scorers from the control group; this was exclusively done based on the quantitative results.

Following such quantitative comparisons between the top scorers of both groups, I carried out qualitative analyses of the participants’ languaging protocols from their communicated thinking sessions, i.e., (1) while they were working in pairs with the SCOBAs; and (2) during the process of developing their lesson plans. For these qualitative analyses I looked at the two highest scorers within the experimental group.

Thus, the languaging produced during the Communicated Thinking Event (cf. Section 3.3.4.4. henceforth CTE), was analysed following a case study approach in which qualitative (microgenetic) analyses were conducted in order to trace the evolution and possible effects resulting from intervention with STI (see Gánem-Gutiérrez, 2004; and Gánem-Gutiérrez & Gilmore, 2018). Microgenesis refers simultaneously to both the method and the object of study (Gánem-Gutiérrez, 2004); for Wertsch (1985) microgenesis is ‘a very short-term longitudinal study’…‘a local, contextualized learning process’…(cited in Lantolf & Thorne, 2006, p.56). Microgenetic analysis was considered a suitable type of analysis of the CTEs as it allows for tracing the origin and history of a particular learning and/or developmental event.

Through these microgenetic analyses, I could also study the participants’ use of some semiotic tools which have been identified as important for supporting intra-personal (cognitive) and inter-personal (social) functioning strategies (Vygotsky, 1978)
during interaction. For example, *discourse markers* (e.g., ‘ok’); *acknowledgement discourse markers* (‘umm’, ‘yeah’) and *reasoning markers* (e.g., ‘so’), (Gánem-Gutiérrez, 2008; Gánem-Gutiérrez & Roehr, 2011; McLaughlin, 1987; Schiffrin, 1987; Centeno-Cortés & Jiménez Jiménez, 2004) were identified in the data. Centeno-Cortés & Jiménez Jiménez (2004) found that various types of reasoning markers are present in different stages of the thinking process (initiation, progression and conclusion). The authors found that L1 English language learners extensively used reasoning markers throughout these stages, i.e. *so* and *then* during what they call the ´initiation´ stage of reasoning. *So, because,* and *if* were also used as part of casual and conditional clauses during the main reasoning stage, which they called ´progression´ stage. The marker *ok* was used during the ´conclusion´ stage, which together with other expressions of relief or frustration would signal closure of the reasoning process (Centeno-Cortés & Jiménez Jiménez, 2004, pp. 17-22; see also Gánem-Gutiérrez & Roehr, 2011). Discourse markers appear to also enable *inter-subjectivity* which has a special importance among semiotic tools as it is considered to contribute ‘to developing a sense of shared physical, symbolic, psychological, and social space for the participants’ (McCafferty, 2002, p.202). Furthermore, expressions such as *let’s see,* or *do you understand all this?* support collaborative efforts from the learners to advance together in the co-construction of their knowledge (*Ibidem*).

In sum, key mediation mechanisms used as a guide to conduct microgenetic analyses included *discourse markers, reasoning markers,* and *metalanguage* in order to study processes of *regulation, intersubjectivity, joint attention, thinking space, active reception, participation* and *play* (Gánem-Gutiérrez & Gilmore, 2018; Gánem-Gutiérrez & Roehr, 2011).

Following the analyses of the Communicative Thinking Events (CTEs), from the communicated thinking session 1; I proceeded to conduct the analyses of communicated thinking session 2 when participants developed a lesson plan in pairs. From these, data in the form of the metalinguistic related episodes (MREs) and pedagogical related episodes (PREs) were gathered. The criterion for analysing these was presented in the lesson plans section (*c.f. Section 3.3.5.2.2.*).
All quantitative results were converted to percentages, and due to the small size of the case studies sample, the analyses remained at a descriptive level. The data gathered qualitatively (awareness interviews and languaging) were analysed through microgenetic analyses as previously explained. Due to the fact that I conceptualised RQ3 as a case study, the results and discussion for this question are presented in one single section (unlike RQ1 and RQ2 for which results and discussion are presented separately).
Chapter 4. Results and Discussion

Introduction

This chapter is organized based on the three research questions that led the study. In section 4.1, the results and discussion of RQ1 and RQ2 will be conducted. I will first present in section 4.1.1. the results for RQ1 obtained from the Proficiency Tests, the Metalinguistic knowledge (MLK) and the Language in Use (LiU) tests all of them of quantitative nature. Within this section I will first introduce the descriptive statistics results and secondly I will present the inferential statistics results for MLK and LiU tests. I will follow with section 4.1.2. presenting the results for RQ2 which were obtained from the Awareness Interviews and the Lesson Plans with qualitative and quantitative components to analyse. Once the results of RQ1 and RQ2 are presented, I will proceed with the discussion of both RQ1 and RQ2 in section 4.2. Finally, section 4.3. will present the analyses and discussion (all together) for RQ3 based on descriptive microgenetic analyses from a case study approach in order to trace emergent, moment-to-moment, developmental processes (Lantolf & Poehner, 2014. p.24).

4.1. Results RQ1 and RQ2

Introduction

This section presents the results yielded from the analyses of data gathered from all participants (N=50) by means of various instruments, i.e. interviews, tests, lesson plans, and verbalisation activities. Due to the nature of the research design and the different variables (i.e. level of MLK and language use knowledge, amount and quality of verbalisation, and ability to apply MLK to lesson planning), the methodological design required a combination of quantitative and qualitative approaches (Creswell, 2012; Walliman, 2010). Thus, each type of data and its respective results either quantitative or qualitative entailed specific data analysis methods.
4.1.1. RQ1. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ linguistic knowledge (MLK and language use) regarding aspectual distinctions in English (Results).

4.1.1.1. Preliminary Analyses

A series of one-sample Kolmogorov-Smirnov (KS) tests confirmed that the data did not differ significantly from a normal distribution, so the use of parametric statistics was warranted. The alpha level was set at .05.

The participants’ level of English was assessed by means of the Oxford Quick Placement Test (UCLES, 2004) as summarized in Table 12. Independent samples t-test indicated that there were no statistically significant differences between the experimental and control groups: t (48) = -.2.870, p = .424.

Table 12: L2 learners’ proficiency level by treatment group (N=50)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (N=22)</td>
<td>63.77</td>
<td>12.150</td>
<td>45</td>
<td>96</td>
</tr>
<tr>
<td>Experimental (N=28)</td>
<td>66.64</td>
<td>12.758</td>
<td>41</td>
<td>87</td>
</tr>
</tbody>
</table>

In order to answer RQ1, the performance of two groups (control vs experimental) on the MLK test at pre-test, post-test and delayed post-test and the measure of language use at pre-test and post-test were compared.

4.1.1.2. Metalinguistic Knowledge Test (MLK)

Table 13 provides an overview of the groups’ performance on the MLK test (maximum possible score was 57).

Table 13: Descriptive statistics for the MLK test (N=50)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group (N=22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>20.86</td>
<td>5.222</td>
<td>13</td>
<td>31</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>23.68</td>
<td>4.765</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>18.23</td>
<td>5.237</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Experimental group (N=28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>21.29</td>
<td>7.802</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>33.71</td>
<td>8.546</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>28.39</td>
<td>8.381</td>
<td>5</td>
<td>44</td>
</tr>
</tbody>
</table>
The descriptive statistics for the pre-test suggests similar performance across groups. This was confirmed by independent samples t-test, which revealed no statistical differences between the groups: the control group (M = 20.86, SD = 5.220) and the experimental group (M = 21.29, SD = 7.802), t(48) = -.218; p = .828.

As Figure 1 below shows, Repeated Measures ANOVA on MLK test comparing the scores participants obtained for the pre-test, post-test and delayed post-test yielded a significant main effect of time with medium to large effect size, $F(1,48) = 159.23$, $p < .001$, partial $\eta^2 = .68$; a significant main effect of group with a marginal effect size, $F(1,48) = 13.03$, $p = .001$, partial $\eta^2 = .21$, and an interaction between time and group with a moderate effect size, $F(1,49) = 41.52$, $p < .001$, partial $\eta^2 = .52$.

Post-hoc comparisons (independent samples t-tests) indicated that the experimental group (M = 33.71, SD = 8.456) significantly outperformed the control group (M = 23.68, SD = 4.765) on immediate post-test: $t (48) = -4.93$, $p < .001$ and delayed post-test: experimental group (M = 28.39, SD = 8.38), control group (M = 18.23, SD = 5.237), $t (48) = -4.97$, $p < .001$.

Repeated-measures ANOVAs comparing participants’ scores on the immediate and delayed post-tests for the MLK tests indicated that there was attrition between these two testing times with a main effect of time, $F(1,49) = 154.23$, $p < .001$. 
Figure 11 Participants’ performance on MLK test

Based on the statistical analyses conducted, it is possible to say that the experimental group outperformed the control group on the MLK test during post and delayed times as results clearly confirm.

4.1.1.3. Language in Use Test

Table 14 shows the descriptive statistics for the Language in Use test.

Table 14: Descriptive Statistics Language in use Tests (N=50)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group (N=22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in use pre-test</td>
<td>18.77</td>
<td>3.351</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>22.18</td>
<td>4.272</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
<td>Experimental group (N=28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>18.18</td>
<td>3.954</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>24.11</td>
<td>3.910</td>
<td>14</td>
<td>31</td>
</tr>
</tbody>
</table>
Repeated Measures ANOVA on the Language in Use test comparing the scores participants obtained for the pre-test and post-test yielded a significant main effect of time with medium effect size, $F(1,48) = 58.38$, $p < .001$, partial $\eta^2 = .55$; a non-significant main effect of group with a marginal effect size, $F(1,48) = .518$, $p = .475$, partial $\eta^2 = .01$, and an interaction between time and group with a marginal effect size, $F(1,49) = 4.250$, $p = .045$, partial $\eta^2 = .08$.

Thus, there was not much difference between groups’ performance on the language in use post-test; just a slightly higher improvement on the experimental group.

4.1.1.4. Analyses by Level/Semester

Analyses were also conducted on the basis of the level/semester to identify if there was any difference in the metalinguistic knowledge and language use scores between groups, (control vs. experimental); the results of these analyses are presented below. Although when groups (control and experimental) were split by level and they became very small, this was not considered a problem; it was just another way of looking at the data from a different angle. Looking at the data from a control vs. experimental perspective provided a more ample scope for analyses.
Table 15: Descriptive statistics for the MLK test for Semester 5 (N=20)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group: Semester 5 (N=10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>19.30</td>
<td>5.272</td>
<td>13</td>
<td>31</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>21.50</td>
<td>4.950</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>17.90</td>
<td>3.604</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>Experimental group: Semester 5 (N=10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>18.30</td>
<td>8.895</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>29.30</td>
<td>11.480</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>23.50</td>
<td>10.586</td>
<td>5</td>
<td>44</td>
</tr>
</tbody>
</table>

Repeated Measures ANOVA on MLK test comparing participants’ performance on the MLK test for the pre-test, post-test and delayed post-test revealed a significant main effect of time with a large effect size, $F(1,18) = 39.470$, $p < .001$, partial $\eta^2 = .82$; a non-significant main effect of group with a marginal effect size, $F (1,18) = 1.407$, $p= .251$, partial $\eta^2 = .073$, and an interaction between time and group with a moderate effect size, $F(1,18) = 13.966$, $p < .001$, partial $\eta^2 = .622$.

Table 16: Descriptive statistics for Language in Use for Semester 5 (N=20)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group: Semester 5 (N=10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>18.00</td>
<td>3.771</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>21.40</td>
<td>3.766</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
<td>Experimental group: Semester 5 (N=10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>16.20</td>
<td>3.882</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>23.20</td>
<td>4.341</td>
<td>14</td>
<td>27</td>
</tr>
</tbody>
</table>

Repeated Measures ANOVA on the Language in Use test for the pre-test and post-test yielded a significant main effect of time with medium effect size, $F(1,18) = 28.430$, $p< .001$, partial $\eta^2 = .61$; a non-significant main effect of group with no effect size, $F(1,18) = .000$, $p = 1.000$, partial $\eta^2 = .000$. Hence, no interaction between time and group was observed with a marginal effect size, $F (1,18) = 3.407$, $p=.081$, partial $\eta^2 = .16$. 
Table 17 presents the descriptive statistics for the MLK test for Semester 7.

**Table 17: Descriptive statistics for the MLK test for Semester 7 (N=17)**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control group: Semester 7 (N=7)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>19.71</td>
<td>4.957</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>23.29</td>
<td>3.147</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>15.14</td>
<td>3.761</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td><strong>Experimental group: Semester 7 (N=10)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>19.20</td>
<td>6.033</td>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>33.60</td>
<td>5.420</td>
<td>25</td>
<td>43</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>29.60</td>
<td>5.700</td>
<td>21</td>
<td>39</td>
</tr>
</tbody>
</table>

Repeated Measures ANOVA on MLK test comparing participants’ performance on the MLK test for the pre-test, post-test and delayed post-test revealed a significant main effect of time with a large effect size, $F(1,15) = 144.516, p < .001$, partial $\eta^2 = .95$; a significant main effect of group with a small effect size, $F(1,15) = 12.746, p = .003$, partial $\eta^2 = .459$, and an interaction between time and group with a moderate to large effect size, $F(1,15) = 17.415, p < .001$, partial $\eta^2 = .713$. Post-hoc comparisons (independent samples t-tests) indicated that the experimental group significantly outperformed the control group on immediate post-test, $t(15) = -4.505, p < .001$ and delayed post-test $t(15) = -5.815, p < .001$.

Table 18 illustrates descriptive statistics for Language in Use for Semester 7.

**Table 18: Descriptive statistics for the Language in Use test for Semester 7 (N=17)**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control group: Semester 7 (N=7)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>19.57</td>
<td>2.699</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>24.00</td>
<td>3.873</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td><strong>Experimental group: Semester 7 (N=10)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>18.10</td>
<td>3.510</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>25.20</td>
<td>3.293</td>
<td>20</td>
<td>31</td>
</tr>
</tbody>
</table>

Repeated Measures ANOVA on the Language in Use test for the pre-test and post-test yielded a significant main effect of time with medium effect size, $F(1,15) = 35.908, p<.001$, partial $\eta^2 = .705$; a non-significant main effect of group with no effect size,
$F(1,15) = .010, p = .922$, partial $\eta^2 = .001$, and a non-significant interaction between time and group with a marginal effect size, $F(1,15) = 1.928, p = .185$, partial $\eta^2 = .114$.

Table 19 presents the descriptive statistics for the MLK test for Semester 9.

**Table 19: Descriptive statistics for the MLK test for Semester 9 (N=13)**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group: Semester 9 (N=5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>25.60</td>
<td>2.702</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>28.60</td>
<td>2.608</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>23.20</td>
<td>6.760</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>Experimental group: Semester 9 (N=8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK pre-test</td>
<td>27.63</td>
<td>4.627</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>MLK post-test</td>
<td>39.38</td>
<td>3.159</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>MLK delayed post-test</td>
<td>33.00</td>
<td>4.957</td>
<td>25</td>
<td>43</td>
</tr>
</tbody>
</table>

Repeated Measures ANOVA on MLK test comparing participants’ performance on the MLK test for the pre-test, post-test and delayed post-test revealed a significant main effect of time with a large effect size, $F(1,11) = 40.102, p < .001$, partial $\eta^2 = .89$; a significant main effect of group with a small effect size, $F(1,11) = 11.500, p = .006$, partial $\eta^2 = .511$, and an interaction between time and group with a moderate to large effect size, $F(1,11) = 11.705, p = .002$, partial $\eta^2 = .701$. Post-hoc comparisons (independent samples t-tests) indicated that the experimental group significantly outperformed the control group on immediate post-test, $t (11) = -10.775, p < .001$ and delayed post-test $t(11) = -.9.800, p = .012$. Table 20 illustrates descriptive statistics for Language in Use for Semester 9.

**Table 20: Descriptive statistics for the Language in Use test for Semester 9 (N=13)**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group: Semester 7 (N=5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>19.20</td>
<td>3.633</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>21.20</td>
<td>3.701</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>Experimental group: Semester 7 (N=8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language in Use pre-test</td>
<td>20.75</td>
<td>3.454</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Language in Use post-test</td>
<td>23.88</td>
<td>4.224</td>
<td>17</td>
<td>28</td>
</tr>
</tbody>
</table>
Repeated Measures ANOVA on the Language in Use test for the pre-test and post-test yielded a non-significant main effect of time with marginal effect size, $F(1,11) = 4.297$, $p = .062$, partial $\eta^2 = .281$; a non-significant main effect of group with a marginal effect size, $F(1,11) = 1.421$, $p = .258$, partial $\eta^2 = .114$, and a non-significant interaction between time and group with a marginal effect size, $F(1,11) = .207$, $p = .658$, partial $\eta^2 = .018$.

Figure 13 and Figure 14 below illustrate the analyses carried out for MLK and LiU tests results per group and per level.

**Figure 13: Participants’ performance on MLK test per level**
The analyses per semester per group on both measures (metalinguistic knowledge and language use) confirmed that the experimental group outperformed the control group at the three different levels/semesters predominantly in relation to metalinguistic knowledge. The MLK test results showed a higher significant difference in improvement from pre to post and from post to delayed on the experimental group over the control at all levels. Whereas for the language in use tests results, there was no significant statistical difference despite the minimal improvement observed among groups from pre to post testing.

4.1.2. RQ2. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees´ ability to apply linguistic knowledge to pedagogical practice (Results).

Another way of determining the potential of STI over TI was by exploring its impact on teacher trainees´ cognition regarding the concepts of tense and aspect as reflected in their pedagogical thinking. To that aim data obtained from 1) Awareness Interviews, and 2) Lesson Plans were examined. I will first present the results on the awareness interviews and then I will proceed with the Lesson Plans.
4.1.2.1. Awareness Interviews

Awareness interviews results are first presented quantitatively. Then I will illustrate the qualitative dimension of the analysis by providing a selection of excerpts from the interviews. The selected excerpts are representative of the patterns found. For details regarding this tool for data collection please refer to the Methodology chapter (Chapter 3).

Awareness Interviews mean scores were calculated for pre-test and post-test by adding up the scores the participants obtained for each question in the interview to obtain an overall score for each participant. Table 21 summarizes descriptive statistics for Awareness Interviews (N= 50)

<table>
<thead>
<tr>
<th>Table 21: Descriptive Statistics for Awareness Interviews (N=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group (N=22)</td>
</tr>
<tr>
<td>Awareness interviews pre-test</td>
</tr>
<tr>
<td>Awareness interviews post-test</td>
</tr>
<tr>
<td>Experimental group (N=28)</td>
</tr>
<tr>
<td>Awareness interviews pre-test</td>
</tr>
<tr>
<td>Awareness interviews post-test</td>
</tr>
</tbody>
</table>

Repeated measures ANOVA comparing the mean pre-test and post-test Awareness Interviews scores yielded a significant effect of time with a small to medium effect size, $F(1,48) = 45.98$, $p < .001$, partial eta squared $= .49$, a significant effect of group with a marginal effect size, $F(1,48) = 4.504$, $p < .001$, partial eta squared $= .09$ and a significant interaction between time and group, $F(1,48) = 14.27$, $p < .001$, partial eta squared $= .23$. Independent-samples t-test indicated that the experimental group significantly outperformed the control group, $t (48) = -1.71$, $p = .001$.

Qualitative analyses of the awareness interviews provided a complementary view and a more detailed account regarding participants’ improvement in terms of metalinguistic knowledge. They also served the purpose of exploring whether they could ‘spontaneously’ transfer what they learned regarding the concepts of tense and aspect during treatment to their pedagogical thinking when conceptualising lesson plans.
Table 22 shows some examples of the awareness interview responses contrasting both groups (control and experimental) from pre to post times as evidence of the improvement in the quality of participants’ answers. As presented previously, participants from the experimental group outperformed the control group as confirmed by ANOVAs and t-tests. This was evidenced with participants’ answers, which were more elaborated among participants in the experimental group. They were also more detailed and accurate than those given by participants in the control group which did not show much improvement when compared to the former. In these excerpts (Table 22) we can trace how participants’ answers evolved from pre to post times. From the three questions of the awareness interview, question 2 was the most contrasting one between groups’ answers as it was the one that had a more marked change from pre to post versions (see excerpts in Table 22).

Table 22: Excerpts from Awareness Interviews

<table>
<thead>
<tr>
<th></th>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What do you know about the past tense in English?</td>
<td>(P09CTR5) “The past tense is what happened and is finished now”</td>
<td>(P09CTR5) “Past tense is when we talk about events that happened in the past time”</td>
</tr>
<tr>
<td></td>
<td>(P10EXP5) “It is a tense that indicates an action in past, something that was conducted and had an end in time”</td>
<td>(P10EXP5) “The past is a grammatical tense that we use to indicate actions that took place in the past time. It can be in the form of simple past, past perfect and past progressive”</td>
</tr>
<tr>
<td>2. Do you know the difference between tense and aspect in English?</td>
<td>(P05CTR7) “No”</td>
<td>(P05CTR7) “aspect is like the type of verb, I don’t remember what it is”</td>
</tr>
<tr>
<td></td>
<td>(P04CTR9) “No”</td>
<td>(P04CTR9) “actually I’ve never thought about it; I don’t know the difference between tense and aspect”</td>
</tr>
<tr>
<td></td>
<td>(P04EXP5) “No I don’t”</td>
<td>(P04EXP5) “tense is the way in which we can identify if the verb is in past tense and aspect are characteristics of how we see the tenses as they can be perfect or progressive”</td>
</tr>
<tr>
<td></td>
<td>(P07EXP7) “No”</td>
<td>(P07EXP7) “tense can be progressive, continuous and simple, and aspect is divided in simple and progressive and it means that the sentence has a point when it starts and when it ends and another is when we do not know when it finishes and when it ends”</td>
</tr>
<tr>
<td></td>
<td>(P08EXP9) “No”</td>
<td>(P08EXP9) “the tense are the moments in which the activities occur, for example it could be present, future or past and the aspect is how we perceive those activities, they could be progressive, simple and past progressive also, they are related because according to those situations time and aspect is the way that people perceive an activity.”</td>
</tr>
</tbody>
</table>
3. If you were to teach someone the concept of tense and aspect in English, how would you do it pedagogically?

**AI-EXCQ3B(P08EXP5)**

“I will begin with the structure, the subject then you have to put a verb in past tense and then complete sentence and then I will explain that there are regular and irregular verbs and how these change and I will explain the structure of the past tense and I will put examples of the real life and that’s all”

**AI-EXCQ3A(P08EXP5)**

“First I will ask them about their recently activities they made, then I will write those examples in past tense, then I will explain them the structures with diagrams and images. I will explain the verbs regular and irregular and the forms in interrogative and negative. I will tell them that tense is the time and aspect is how we view events.”

In Table 22 we can see (underlined) how participants from the experimental group and from the three different levels were able to provide what was expected, i.e. an accurate metalinguistic explanation of the targeted concepts, and a brief description of how they would explain such concepts in a pedagogical context. By contrast, participants from the control group provided less accurate answers. The type of improvement/transformation in participants’ answers displayed in Table 22 are the ‘trend’ found in responses where clear improvement was found, either providing the definition of the targeted concepts or explaining how they would approach these concepts in a pedagogical plane. Due to space constraints, I am only presenting a few of the most representative examples of the qualitative analyses of the awareness interviews.

Overall, quantitative analyses based on the awareness interviews responses, confirmed that the experimental group performed better than the control group after treatment. The data samples from the AI presented, illustrate those changes in the quality of responses. As shown in this section, it appears that participants in the experimental group were able to better incorporate their knowledge about the target concept to their pedagogical thinking. They provided more accurate and elaborated explanations showing the incorporation of the concepts of tense and aspect not only on their direct answers; but it also seemed to have ‘re-shaped’ their pedagogical thinking to an extent as attested in the examples presented in Table 22. On the contrary, participants from the control group on the post AI did not register any considerable change or improvement in this respect.
4.1.2.2. Lesson Plans

As detailed in the method chapter (cf. Section 3.3.5.2.2.), a global score for each participant was calculated by adding up two scores reflecting the quality of the lesson plans: 1) MLK about the target concept, and 2) the ability to apply or transfer that knowledge to pedagogical thinking. The appropriate statistical tests were run on these figures.

Lesson plans were scrutinised through 1) the rubrics which served as a quantifiable measure to evaluate knowledge of tense and aspect and how this was considered/applied for pedagogical purposes; and 2) through the verbalisation participants uttered while doing the lesson plans. On the one hand, the rubrics provided straight and specific information such as the participants’ depth of knowledge and the objectives they considered for their teaching. On the other hand, the verbalisation allowed to obtain more ‘subjective’ information in a qualitative way regarding how participants worked collaboratively or why they favoured a specific strategy of teaching while doing the lesson plans, how they processed their knowledge on tense and aspect and how they managed to transfer it into a pedagogical dimension.

Data based on the verbalisation protocols obtained while participants were working on their lesson plans was also processed in a way that enabled statistical analysis as explained in the method chapter (cf. Section 3.3.5.2.2.). An overall score per participant was obtained by adding up both scores from: 1) the lesson plan rubrics containing the scores of Metalinguistic knowledge [MLK] and Pedagogical knowledge [PDK] contained within the lesson plan; and 2) from the lesson plan languaging protocols containing Metalinguistic Related Episodes [MREs] and Pedagogically Related Episodes [PREs].

4.1.2.2.1. Lesson Plan: Rubrics scores

Lesson plans were analysed first quantitatively on the scores from the rubrics followed by qualitative analyses of the languaging participants uttered while they were doing the lesson plans as part of the treatment (cf. Section 3.3.4. Data Collection Procedures). The results for these were analysed on the basis of the two criteria, 1) Metalinguistic Knowledge (MLK) and 2) Pedagogical Knowledge (PDK). Table 23
summarizes descriptive statistics for Lesson Plans MLK; and Table 24 for Lesson Plans PDK.

| Table 23: Descriptive statistics for Lesson Plans MLK (N=50) |
|--------------------|----|----|----|
|                   | Mean | SD  | Min | Max |
| Control group (N=22) |     |     |     |     |
| Lesson plans MLK pre-test | 2.00 | .000 | 2   | 2   |
| Lesson plans MLK post-test | 2.32 | .568 | 1   | 3   |
| Experimental group (N=28) |     |     |     |     |
| Lesson plans MLK pre-test | 1.86 | .356 | 1   | 2   |
| Lesson plans MLK post-test | 2.21 | .686 | 1   | 3   |

A repeated measures ANOVA comparing the mean pre-test and post-test of Lesson Plans Metalinguistic knowledge (MLK) scores yielded a significant effect of time with a small effect size, F(1,48) = 20.430, p < .001, partial eta squared =.299, a non-significant effect of group with a marginal effect size, F(1,48) = .1.103, p = .299, partial eta squared =.022 and a non-significant interaction between time and group with marginal effect size, F(1,48) = .068, p = .795, partial eta squared =.001.

| Table 24: Descriptive statistics for Lesson Plans PDK (N= 50) |
|--------------------|----|----|----|
|                   | Mean | SD  | Min | Max |
| Control group (N=22) |     |     |     |     |
| Lesson plans PDK pre-test | 2.00 | .000 | 2   | 2   |
| Lesson plans PDK post-test | 2.14 | .468 | 1   | 3   |
| Experimental group (N=28) |     |     |     |     |
| Lesson plans PDK pre-test | 1.86 | .356 | 1   | 2   |
| Lesson plans PDK post-test | 2.21 | .686 | 1   | 3   |

A repeated measures ANOVA comparing the mean pre-test and post-test Lesson Plans Pedagogical knowledge (PDK) scores yielded a significant effect of time with a marginal effect size, F(1,48) = 13.070, p = .001, partial eta squared =.214, a non-significant effect of group with a marginal effect size, F(1,48) = .082, p = .776, partial eta squared =.002 and a non-significant interaction between time and group with marginal effect size, F(1,48) = 2.616, p = .112, partial eta squared =.052.
Results from both descriptive statistical analyses and repeated measures ANOVA reported no significant difference between groups’ performance on lesson plans reflecting the pedagogical application of the concepts of tense and aspect.

**4.1.2.2.2. Lesson Plan: Languaging Episodes**

Languaging episodes, i.e., fragments of dialogue where language is used for cognitive purposes *(cf. Section 3.3.5.3)* were analysed both quantitatively and qualitatively. Once Metalinguistic Related Episodes (MREs) and Pedagogically Related Episodes (PREs) were identified, coded and counted, I proceeded to generate the descriptive statistical analyses. The qualitative analyses served to identify the precise allusion, i.e. context and timing where MREs or PREs choices from participants were taken while interacting collaboratively with their peers.

Once each protocol of verbalisation was scrutinized and the languaging episodes identified *Metalinguistic Related Episodes* and *Pedagogically Related Episodes* (MREs and PREs) were analysed through microgenetic analyses *(cf. Section 3.3.5.3)*. MREs were explicit metalinguistic allusions to choices or construction of grammatical structures of participants while speaking to each other; while PREs were considered explanations, decision making, negotiation of content, provision of feedback as defined in the data analyses section *(cf. Section 3.3.5.2.2. Lesson Plan: Verbalisation)*.

Since the data did not meet the assumptions of normal data distribution, non-parametric statistics were used. One of the participants in the control group was excluded from subsequent analysis due to the absence of a partner he was paired with.

Table 25 provides descriptive statistics for metalinguistic related episodes (MREs) and pedagogically related episodes (PREs).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group (N=21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MREs</td>
<td>2.48</td>
<td>1.03</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>PREs</td>
<td>2.90</td>
<td>.944</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Experimental group (N=28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MREs</td>
<td>2.29</td>
<td>1.24</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PREs</td>
<td>3.36</td>
<td>1.19</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>
The scrutiny of descriptive statistics as displayed in Table 25 suggests that there does not seem to be a difference between the control and the experimental group in terms of the metalinguistic and pedagogically related episodes they produced. Participants in both groups produced more PREs than MREs.

Since the data pertaining to the MREs and PREs was found to significantly deviate from normal data distribution, a non-parametric test (Mann-Whitney U) was conducted to compare the control and experimental groups. All the assumptions for the test were met. A Mann-Whitney U test performed on the MREs did not reveal a significant difference between the control and experimental group; \(z=-.349, p = .727\). The results indicate that the intervention did not lead to higher production of MREs by the experimental group. A Mann-Whitney U test performed on the PREs, did not yield a significant difference between the control and experimental group, \(z = -1.264, p = .206\), suggesting that the intervention did not result in higher production of PREs by the experimental group either. Table 26 shows descriptive statistics for the MREs and PREs produced by the control and experimental groups by semester.

| Table 26: Descriptive statistics for the MREs and PREs by semester (N total = 49) |
|---------------------------------|--------|--------|--------|
|                                | Mean   | SD     | Min    | Max    |
| Control group                  |        |        |        |        |
| Semester 5 (N=10)              |        |        |        |        |
| MREs                           | 2.60   | 1.27   | 2      | 5      |
| PREs                           | 2.80   | .79    | 2      | 4      |
| Semester 7 (N=7)               |        |        |        |        |
| MREs                           | 2.57   | .98    | 2      | 4      |
| PREs                           | 3.57   | .98    | 3      | 5      |
| Semester 9 (N=4)               |        |        |        |        |
| MREs                           | 2.00   | .00    | 2      | 2      |
| PREs                           | 2.00   | .00    | 2      | 2      |
| Experimental group             |        |        |        |        |
| Semester 5 (N=10)              |        |        |        |        |
| MREs                           | 2.60   | .84    | 2      | 4      |
| PREs                           | 3.20   | 1.23   | 2      | 5      |
| Semester 7 (N=10)              |        |        |        |        |
| MREs                           | 1.00   | .67    | 0      | 2      |
| PREs                           | 2.60   | .84    | 2      | 4      |
| Semester 9 (N=8)               |        |        |        |        |
| MREs                           | 3.50   | .54    | 3      | 4      |
| PREs                           | 4.50   | .54    | 4      | 5      |
The overview of descriptive statistics by semester suggests that, while the control and experimental groups seem to have produced comparable number of MREs, the experimental group produced slightly more PREs. The groups appear to vary more in the amount of MREs and PREs in semesters 7 and 9, with the control group seemingly producing more MREs and PREs in semester 7 and the experimental group producing more MREs and PREs in semester 9.

Mann-Whitney tests were conducted to verify if there was a significant difference between groups in terms of production of MREs and PREs. Table 27 displays the results drawn from these tests:

**Table 27: Mann-Whitney test results on MREs and PREs per level**

<table>
<thead>
<tr>
<th>Semester</th>
<th>( z )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 5 (N=20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MREs</td>
<td>-.560</td>
<td>.575</td>
</tr>
<tr>
<td>PREs</td>
<td>-.637</td>
<td>.524</td>
</tr>
<tr>
<td>Semester 7 (N=17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MREs</td>
<td>-3.110</td>
<td>.002</td>
</tr>
<tr>
<td>PREs</td>
<td>-2.074</td>
<td>.038</td>
</tr>
<tr>
<td>Semester 9 (12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MREs</td>
<td>-2.872</td>
<td>.004</td>
</tr>
<tr>
<td>PREs</td>
<td>-2.872</td>
<td>.004</td>
</tr>
</tbody>
</table>

As shown in Table 27 above, 5 semester showed no significant difference on either MREs or PREs between the control and experimental groups. 7 semester revealed a significant difference between the control and experimental groups; the control group had a higher production of both MREs and PREs compared to the experimental group. 9 semester yielded a significant difference for control and experimental groups registering a higher production of both MREs and PREs for the experimental group. Overall 9 semester produced the highest number of both MREs and PREs from the three different levels. The Kolmogorov-Smirnov test and the \( p \) values for both MREs and PREs in semester 9 (control and experimental) were the same as shown in Table 27.

To explore if there were any relationships between the results from the lesson plans and the languaging episodes, Pearson correlations were conducted. The control group registered two positive correlations. The first was between Metalinguistic Related
Episodes (MREs) and Pedagogical Related Episodes (PREs) \((r = .76, n = 21, p < .001)\) which means that the more MREs they produced, the higher the number of PREs. The second correlation for the control group was between the Lesson Plans MLK and Lesson Plans PDK \((r = .72, n = 22, p < .001)\) suggesting that the amount of MLK deployed in the lesson plans positively correlated with the degree of MLK deployed pedagogically in the lesson plans. With regard to the experimental group, there were more correlations than for the control group. Findings indicated that, a positive relationship was found between Metalinguistic Related Episodes (MREs) and Pedagogical Related Episodes (PREs) \((r = .72, n = 28, p < .001)\), meaning that participants who verbalised more about MREs reflected more production of PREs. In the same vein, MREs positively correlated with Lesson Plan MLK and Lesson Plan PDK \((r = .44, n = 28, p = .017)\). Similarly, a positive relationship was observed between PREs outcomes and Lesson Plan MLK and Lesson Plan PDK \((r = .53, n = 28, p = .003)\). In sum, Lesson plans scores on how participants deployed MLK and PDK were positively aligned with the amount and type of verbalisation produced.

Overall, the overview of descriptive statistics suggests a trend towards higher production of the PREs by the experimental group, and the inferential statistics point to significantly higher production of MREs and PREs of the experimental group in semester 9 but not semester 7 where the control group produces a significantly higher number of the MREs and PREs episodes.

Following the quantitative analyses of the languaging episodes both metalinguistic and pedagogical, I proceeded to conduct qualitative analyses of these as a way to better understand the results.

4.1.2.2.1. Metalinguistic Related Episodes (MREs)

As previously indicated, MREs were considered instances in which participants evidenced their acquaintance with metalinguistic knowledge of tense and aspect. An analysis of the protocols from a qualitative perspective showed that the MREs found referred specifically to grammatical allusions or discussion of choices of MLK with regard to the construction of tense and aspect that participants expressed while interacting during the communicated thinking phase. The following are excerpts of
language episodes that emerged from the communicated thinking phase which show evidence of how participants used language for cognitive purposes (Swain, 2006a) while talking about metalinguistic aspects. Due to space constraints, only a few examples per group are presented (Table 28).
<table>
<thead>
<tr>
<th>Turn</th>
<th>Pupil</th>
<th>Language</th>
<th>Turn</th>
<th>Pupil</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>SM</td>
<td>CONTROL</td>
<td>06</td>
<td>CG</td>
<td>EXPERIMENTAL</td>
</tr>
<tr>
<td>07</td>
<td>DC</td>
<td>Will you explain the structures of how to form the past tense?</td>
<td>08</td>
<td>GC</td>
<td>Verbs... ehh some were ehh... some indicated 'events' and 'states'. right?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>while I write the sentences I will be explaining the structure of the past tense... that for affirmative sentences we use the verb in past and for negatives and questions we use the auxiliary did...</td>
<td></td>
<td></td>
<td>Yes... besides they are regular and irregular verbs can be classified in events and states...</td>
</tr>
<tr>
<td>05</td>
<td>CB</td>
<td>Ahh ahh ahh, past tense so in the simple how is formed; ...the four different aspects that exist in the past and give, and provides the patterns that they need to follow the different past tenses in the past; so we have simple that is subject plus verb in the past plus complement, right?</td>
<td>52</td>
<td>ES</td>
<td>So, progressive; it is the tense, right?</td>
</tr>
<tr>
<td>06</td>
<td>CD</td>
<td>Yes ok showing how to do it following the examples of the teacher...</td>
<td>53</td>
<td>NM</td>
<td>No no no, it's not like that, look, it is... it is... aspect progressive is how we see the events happening... and perfect is how things happened... like in the tutorial... do you remember? If they finished or they were happening...</td>
</tr>
<tr>
<td>09</td>
<td>CR</td>
<td>Exp 01</td>
<td>105</td>
<td>PB</td>
<td>Ohh, I see, I got it...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exp 02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>TB</td>
<td>Exp 03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>CM</td>
<td>Exp 04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>BR</td>
<td>Exp 05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>BC</td>
<td>Exp 06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exp 07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exp 08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exp 09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exp 10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 28: Metalinguistic Related Episodes (MREs)
In looking for evidence of how participants might have made the `transition´ from prescriptive grammatical rules to a more holistic understanding of the concepts of tense and aspect as STI aims (Arievitch & Haenen, 2005; Lantolf & Poehner, 2014; Negueruela-Azarola, 2003; Negueruela-Azarola & García, 2016), excerpts identified from both groups were compared. Important to highlight, is the fact that although quantitatively the control group produced slightly more MREs that the experimental group (cf. section 4.2.2.2. Table 25); qualitatively, the MREs the experimental group produced suggested a more *semantically grounded understanding* of the concepts of tense-aspect marking in a holistic manner as the results show; and which was what we were expecting to happen. Overall results of the qualitative comparison of MREs between the two groups evidenced how participants from the experimental produced MREs of a different quality as opposed to the control group’s which were clearly based on prescriptive grammar rules. Table 28 displays excerpts of the results from both groups, with the experimental group’s MREs showing a clear allusion to the targeted concepts. The excerpts show the discussion (language) of participants trying to understand in a more holistic way the concepts of tense and aspect as opposed to the control group’s which remain alluding to general prescribed grammar rules.

4.1.2.2.2. Pedagogically Related Episodes (PREs)

In a similar fashion to MREs, PREs were also analysed qualitatively to trace if any of the newly learnt concepts of tense and aspect were transferred or reflected in their pedagogical thinking while doing their lesson plans. Thus, any allusion to fragments of dialogue referring to *how to teach or explain* the target concepts to others was considered as PREs. In doing so, *pedagogical considerations, explanations, rules, decision making and negotiation of content, provision of feedback, and wrap-up or closure of their languaging* were identified. Detecting these types of episodes gave us a `footprint´ of what exactly participants said regarding the application of the targeted concepts of tense and aspect within a pedagogical context.

Results from the comparative analyses on PREs demonstrated that the experimental group produced more episodes alluding to the concepts of tense and aspect from a holistic and cognitive grammars perspective as aimed through STI, (see Table 29 -highlighted). PREs from the control group did not show a significant allusion to the concept of aspect as the experimental group did. Table 29 shows a detailed account of
PREs from both groups which seem to have been transferred as pedagogical thinking while doing their lesson plans after intervention (due to space constraints only a few excerpts are presented). Pedagogical considerations, explanations, and negotiation of context alluding to the target concepts, were some of the types of PREs identified. The discussion of these is carried out in chapter 5 (cf. section 5.3.2.2.2).
### Table 29: Pedagogically Related Episodes (PREs)

<table>
<thead>
<tr>
<th>Tums</th>
<th>Pct</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 06</td>
<td>110</td>
<td>CGE</td>
</tr>
<tr>
<td>Exp 07</td>
<td>111</td>
<td>PB</td>
</tr>
<tr>
<td>Exp 08</td>
<td>112</td>
<td>GC</td>
</tr>
<tr>
<td>Exp 09</td>
<td>113</td>
<td>PB</td>
</tr>
<tr>
<td>Exp 10</td>
<td>120</td>
<td>GC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tums</th>
<th>Pct</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 01</td>
<td>58</td>
<td>R</td>
</tr>
<tr>
<td>Exp 02</td>
<td>55</td>
<td>R</td>
</tr>
<tr>
<td>Exp 03</td>
<td>54</td>
<td>R</td>
</tr>
<tr>
<td>Exp 04</td>
<td>53</td>
<td>R</td>
</tr>
<tr>
<td>Exp 05</td>
<td>52</td>
<td>R</td>
</tr>
<tr>
<td>Exp 06</td>
<td>51</td>
<td>R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tums</th>
<th>Pct</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 01</td>
<td>104</td>
<td>EC</td>
</tr>
<tr>
<td>Exp 02</td>
<td>105</td>
<td>EP</td>
</tr>
</tbody>
</table>

### CONTROL

- **Pcpnt**: CM, DA, CD
- **Language**: Pedagogically Related Episodes (PREs)

<table>
<thead>
<tr>
<th>Tums</th>
<th>Pct</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 01</td>
<td>DA</td>
<td>...and once the students have seen the change in the form of the verbs, then the teacher gives the explanation of the grammatical rules...to show them the structures like the formulas to make the past...</td>
</tr>
<tr>
<td>Exp 02</td>
<td>ZA</td>
<td>...so they write their story in the past tense following the format and the rules for the past...</td>
</tr>
<tr>
<td>Exp 03</td>
<td>SH</td>
<td>Yes, we have to explain the three basic forms of the simple past: affirmative sentences, negative and interrogatives.</td>
</tr>
<tr>
<td>Exp 04</td>
<td>AR</td>
<td>Yes, I think the same, we have to give them the grammatical structures of how to form sentences...that sentences in past simple in affirmative conjugate the verb in its past form...and there are two types of verbs: regular and irregular and explain them how they are formed...</td>
</tr>
<tr>
<td>Exp 05</td>
<td>CM</td>
<td>Ok...I think is ok...ok ok...so 'first of all...as a teacher we can tell a little story or passage of a moment in the past...the PPP for the uses, characteristics, the grammar structures...and the rules of irregular verbs...</td>
</tr>
<tr>
<td>Exp 06</td>
<td>SA</td>
<td>And to explain...and to make a comparison of the simple past and past continuous, when and in which cases to use the past continuous, mmm, give them examples and to teach them that they can use, make 'combos' with these two grammatical structures...</td>
</tr>
<tr>
<td>Exp 07</td>
<td>DC</td>
<td>...I think they could have a conversation only talking in the past tense and later when they are at a more advanced level they can blend all the tenses...</td>
</tr>
<tr>
<td>Exp 08</td>
<td>BC</td>
<td>...teacher introduces the past tense in general terms, this means that teacher explains that the student can use this tense to express actions that took place in the past, ok? Then teacher explains the four different aspects that exist in the past, so we can change this table and we can have here the simple, the progressive, the perfect and perfect progressive...</td>
</tr>
<tr>
<td>Exp 09</td>
<td>CD</td>
<td>and provide the students the patterns that they need to follow the different past tenses in the past; so we have simple that is subject plus verb in the past plus complement...</td>
</tr>
</tbody>
</table>

### EXPERIMENTAL

- **Pct**: GC, PC, PB, ES, PC
- **Language**: Pedagogically Related Episodes (PREs)

<table>
<thead>
<tr>
<th>Tums</th>
<th>Pct</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 01</td>
<td>GC</td>
<td>We can make a lesson plan that shows us how we can describe perception...We can start by putting the verbs that can describe events and states...for example in events we can say the verb like ehh 'construir' because it is 'to build' and it is just a verb that implies internal development and is dynamic because requires movement...</td>
</tr>
<tr>
<td>Exp 02</td>
<td>PC</td>
<td>We can do activities where it requires movement in a dynamic way...</td>
</tr>
<tr>
<td>Exp 03</td>
<td>ES</td>
<td>Ok, but how could we teach that? How should we include that in a lesson plan?</td>
</tr>
<tr>
<td>Exp 04</td>
<td>PB</td>
<td>We can use some pictures to make it more realistic...right?</td>
</tr>
<tr>
<td>Exp 05</td>
<td>BR</td>
<td>You know...but we should not just use grammar rules on the board, we can use some pictures to make it more realistic...right?</td>
</tr>
<tr>
<td>Exp 06</td>
<td>OS</td>
<td>Like in the slides, the students have to see the real difference between tense and aspect, they have to see that aspect is more of how they perceive the action happening, we have to explain that to them, they need to know that...</td>
</tr>
<tr>
<td>Exp 07</td>
<td>BR</td>
<td>But we have to explain them the grammar like the use of the auxiliary 'did' which is what they need to use to form interrogative and negative statements...isn't it?</td>
</tr>
<tr>
<td>Exp 08</td>
<td>GC</td>
<td>Yes...but we want the students to go bit by bit and we cannot bombard them with just grammatical explanations...I think the idea of images is good...</td>
</tr>
<tr>
<td>Exp 09</td>
<td>PB</td>
<td>We can do activities where it requires movement in a dynamic way...</td>
</tr>
<tr>
<td>Exp 10</td>
<td>BL</td>
<td>...and that's it, we could put some examples of which ones are events and which ones are states...</td>
</tr>
</tbody>
</table>

... and there to...
Analysing the data from these two perspectives, quantitatively and qualitatively allowed us to have a more holistic view of the results of this section of the study (Creswell, 2012). In a similar way as occurred with MREs, quantitative statistical analyses determined that it was only participants from the experimental group 9th semester the ones that seemed to have performed better with regards PREs (cf. Section 4.2.2.2.2.). However, qualitative analyses broadened the scope of view of participants’ from 9th semester answers and demonstrated a more holistic and semantically grounded understanding of the concepts of tense and aspect than the experimental group after intervention as displayed in Table 29.

Overall, results from these previous sections from both quantitative and qualitative perspectives, provide evidence that the experimental group produced more MREs and PREs than the control group. It seems that participants from the experimental group used language more for cognitive purposes bringing into the discussion with each other the concepts of tense and aspect with pedagogical purposes (PREs) particularly. With regard to metalinguistic related episodes (MREs), there was not a considerable difference registered between groups, which was also confirmed through the qualitative scrutiny of the data. In sum, both types of analysis combined served to provide a view of participants’ performance from different but complementary perspectives. The discussion of these is carried out in the sections following (cf. Sections 4.2.3 and 4.2.4).

4.2. Discussion RQ1 and RQ2

Introduction

The discussion section is organized in relation to RQ1 and RQ2; thus, it is divided into two main sections as follows: Section 4.2.1. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ linguistic knowledge (MLK and language use) regarding aspectual distinctions in English. Section 4.2.2. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ ability to apply linguistic knowledge to pedagogical practice.
4.2.1. RQ1. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ linguistic knowledge (MLK and language use) regarding aspectual distinctions in English.

In order to answer RQ1: ‘Is STI more effective than TI for enhancing EFL teacher trainees’ linguistic knowledge (metalinguistic knowledge and language use) regarding the aspectual distinctions conveyed by simple past, past continuous and present perfect in English? (cf. Section 3.2. Research Rationale) two variables were considered: 1) participants’ level of metalinguistic knowledge; and 2) use of the target forms in context.

4.2.1.1. Metalinguistic Knowledge

The results from repeated measures ANOVA confirmed that there was an evident improvement from pre to post and delayed times where the experimental group outperformed the control group. These results suggest that the experimental treatment (STI) was more effective than the control treatment (TI) for enhancing the participants’ level of MLK (cf. Section 4.2.2.).

An attrition effect also confirmed by repeated measures ANOVA was reflected on the MLK test results when comparing post and delayed times for both groups. This indicates there was a decrease in the gains that MLK participants had achieved from pre to (four week) delayed post testing particularly for the control group.

This drop in the control’s delayed scores indicates that the effect of treatment based on Traditional Instruction may not have had a lasting effect on participants. This could be due to the fact that input was supported only by the use of discrete grammatical rules presented in an isolated manner with exclusively grammar exercises to re-enforce practice. It could be that because of this type of instruction, learners did not have anything memorable to rely on and therefore their learning process was not meaningful enough to retain the new knowledge in the longer term. Moreover, the control group did not rely on other pedagogical resources such as verbalisation in any of the forms STI suggests (i.e. dialogic and collaborative) as the experimental group did, which could also be considered as another factor as to why the instruction did not have as lasting an effect as was the case for the experimental group. In using verbalisation as a way of
enhancing the learning of the grammatical concept of voice, Swain et al. (2009) found that “the more the participants externalized their thoughts, the more able they were to monitor and self-assess their own learning process, transforming it from a surface understanding to a deeper conceptual one” (p.21). It seems that our findings resemble those of Swain and colleagues; that is to say, one potential reason for participants in the experimental group to outperform the control group on both post and delayed times may have been that by externalising their thoughts to mediate their cognitive process when dealing with the new knowledge through languaging they managed to grasp it and retain it to a deeper level. In addition to verbalisation, the materialization of the new concepts through the SCOBAs might have played a role in helping the students understand the grammatical concepts of tense and aspect to a deeper level.

Interestingly, the findings indicated that most advanced participants, the experimental group (9th semester), were the ones who, on average, scored the highest from the three levels/semesters (pre 27.6 to post 39.4 diff= 11.8 pts = 30% gains). At first this appears to indicate that the higher the proficiency of the participants the more they benefited from the treatment and therefore we could assume that with STI intervention their previous knowledge was better restructured and consolidated. However, the highest proportional difference in improvement when comparing results from pre to post within the three experimental groups was for the 7th semester (pre 19.2 to post 33.6 diff= 14.3 pts = 42% gains) and 5th semester, which also showed substantial improvement (pre 18.3 to post 29.3 diff= 11.0 pts = 38% gains). These results suggest that not only the advanced learners from 9th semester benefited from STI, but learners from intermediate and lower proficiency levels also benefited considerably more from STI as the proportional difference in gains/improvement showed for the 7th and 5th semesters was even higher than that for 9th semester.

The overall findings are consistent with other studies (see Negueruela-Azarola, 2003; García, 2012; 2017; Gánem-Gutiérrez & Harun, 2011; Gánem-Gutiérrez, 2016; Kim, 2013; Lee, 2012; Yáñez-Prieto, 2008; Polizzi, 2013; Walter & van Compernolle, 2017) that have looked at the implementation of STI and CBI. Their findings have demonstrated the effectiveness of these pedagogical approaches in language teaching on various grammatical features (e.g. tense-aspect-mood system, voice, phrasal verbs, literary metaphor). Negueruela-Azarola’s (2003) study, in particular, served as a crucial reference for our study, as he has been one of the pioneers in implementing the full
Gal’perian cycle of STI, which is what we aimed to do. Negueruela-Azarola demonstrated that after a period of treatment (being exposed to a didactic design where participants were engaged in activities to reflect and promote the concept of aspect) they gained conceptual understanding of the target concepts being internalized through materialization (SCOBAs) and verbalization. The findings in the studies conducted by Gánem-Gutiérrez & Harun (2011) and Gánem-Gutiérrez (2014, 2016) are also key references to our study as they also aimed to test the effectiveness of CBI, relying on the use of SCOBAs and verbalization as regulatory tools to teach the grammatical features of tense and aspect. These studies provide evidence of the positive effect of this pedagogical approach in enhancing learners’ metalinguistic knowledge contributing to the development of cognitive processes and gaining deeper understanding of these grammatical concepts. As discussed in the literature review chapter, however, none of these studies compared STI/CBI to other pedagogical treatments, i.e. traditional instruction as we did; in other words, they did not rely on experimental designs.

In order to contextualise the present study’s findings it is, therefore, necessary to look beyond SCT. A number of studies have investigated the teaching and learning of metalinguistic knowledge from different approaches; e.g. comparing two or more different treatments, i.e. implicit vs. explicit instruction; classroom and non-classroom settings, length of instruction, etc. (e.g. Bell, 2017; Eskildsen & Theodórsdóttir, 2017; Fordyce, 2014; Ellis, 2009; DeKeyser, 2003; Roehr, 2010; ). The results drawn from these studies suggest that explicit instruction for grammar features can be effective and contribute to fostering learning, as our findings also suggest. In our case, it was through STI that the concepts of tense and aspect were taught explicitly with significant effective results (cf. Section 4.2.2.). These assumptions are also corroborated by the findings of Fordyce (2014) in which the linguistic focus of the study was to test the effectiveness of explicit vs implicit instruction to teach epistemic stance forms.

"Epistemic stance markers are used to present speaker comments on the status of information in a proposition. They can mark certainty (or doubt), actuality, precision, or limitation… they are typically expressed through a variety of lexical and grammatical forms; i.e. cognitive verbs, modal adverbs, modal verbs, modal expressions…” (p. 8). The results from Fordyce (2014) made it evident that explicit instruction of epistemic stance forms in short and long term was considerably more effective than implicit intervention at different levels of proficiency. Although Fordyce’s instructional
approaches differed from ours (i.e., both STI and TI involve explicit attention to grammar features) the pattern of improvement in the gains participants showed during post and delayed testing times was similar to our study’s (p.20). Furthermore, the 18% decrease in the gains during delayed testing reported in Fordyce’s study for both groups (implicit and explicit) resembled the trajectory the MLK tests results showed in our study between control (TI) and experimental (STI) groups with a similar level of decrease of 19% from post to delayed testing (cf. Section 4.2.2.). We agree with Fordyce (2014) that perhaps, if further enriched input had been provided for instance as part of practice activities, participants may have retained more of the gained knowledge and the attrition effect reflected on the delayed test may have been less.

Length of exposure may have been another reason that contributed to the effectiveness of STI to teach the concepts of tense and aspect in English. On testing the effectiveness of treatments in simultaneous explicit and implicit learning, Bell (2017) found that quantity of input and time seemed to be inter-related components that favoured explicit learning. Thus, in our study, it appears to be that having exposed participants to a longer instructional treatment (x > 7 hrs) (Norris & Ortega, 2000) plus the amount and perhaps in our case, type of input (working with the tutorials and materialization through the SCOBAs plus verbalisation) produced a longer lasting effect for participants to retain the newly learnt concepts as the durability effect for the delayed test scores demonstrated, even when these decreased partially during the delayed testing compared to the immediate post-test results.

Thus, we believe that in our case, the results drawn regarding metalinguistic knowledge enhancement of participants through STI were because, 1) they received instruction to understand the concepts of tense and aspect targeted as the minimal conceptual units; 2) the mediational tools used for materialization (SCOBAs) and, 3) verbalisation phases (languaging both individually and collaboratively) created opportunities to engage in meaningful dialogue and, thus, contributed to enhancing the internalisation of the concepts as Gal’perin (1969) suggested (see also Fogal, 2017; Lantolf & Poehner, 2014; Negueruela-Azarola, 2003). As Negueruela-Azarola & García (2016) put it, the impact of STI on participants’ metalinguistic knowledge improvement may have also been due to the powerfulness principles of SCT, i.e. mediation which contributed to take learners from interaction and explanation to internal conceptual understanding attaining internalization (p. 267). Furthermore, the
authors believe that language teaching can be interpreted from a transformative approach inspired in SCT principles whose ultimate goal is to

‘promote conceptual reflection (i.e. the internalization, and thus transformation, of new ideas through thinking about these new ideas)… where ELT as a transformative participation is about mediation, as mediation through language in social communicative activity promotes understanding. Consequently, learners’ knowledge of language is also transformed as they internalize new ideas and knowledge’ (p. 300).

As the authors suggest, the treatment participants received aimed to promote systematic conceptual communication through reflection and verbalisation (individually and collaboratively) using concepts which promoted internalization helping them to eventually foster development and learning (ibid).

Overall, the results addressing RQ1 demonstrate the comparative effectiveness of STI as a pedagogical approach to promote learning and foster development of MLK as evidenced in the findings. It seems to be that the intervention successfully mediated learning in different ways. The treatment seemed to have helped to shape and transform learners’ understanding and seems to have contributed to the learning of the targeted features (Negueruela-Azarola & García, 2016).

4.2.1.2. Language Use

We also measured the potential effectiveness of STI to help participants when selecting target forms (simple past, past continuous or present perfect) for use in context. To measure it, participants completed a Language in Use test pre- and post-treatment which allowed to determine if there had been any improvement as a result of the treatment. The results on the means of this test indicated there was an improvement in both groups’ scores from pre to post testing; however, the difference was not statistically significant. This result was in part expected, since, as discussed previously (cf. Section 4.2.1.1.) the materials (and treatment) were specifically designed to enhance participants metalinguistic knowledge, as opposed to their ability to use that knowledge in context, i.e. language use. The latter is of course the ultimate aim in language learning, but would require an expansion of the approach which, given its already
ambitious nature, was beyond this particular project. Nonetheless, I considered it important to include the ‘language in use’ test as a complementary and exploratory element in the study (see Gánem-Gutiérrez, 2016, p. 43).

To date we do not know of studies on CBI or STI which are aimed exclusively at enhancing language use; most of the studies reviewed focus on the development of metalinguistic knowledge. Thus, looking at the use of the target forms in context in the present study -albeit at an exploratory level can provide some insight into its potential to help learners with the use of the target forms in context after receiving training based on STI instruction.

The data collected in our study provide evidence that STI seems to be more effective to enhance MLK than language in context as the results for the language in use post-tests did not show a significant statistical difference between groups (control vs experimental). As pointed out above, the likely cause might be that the treatment focused specifically on helping learners understand the target concepts metalinguistically, not necessarily using STI components (e.g. SCOBAs, languaging, etc.) for practising on the use of the target forms. We could say then, that -extended practice- on language in use may have been the ´missing component´ in our treatment and therefore no statistical improvement in this respect was registered. Stafford, Bowden, & Sanz, (2012) investigated the extent to which input exposure would enhance nonprimary (Latin) language learning. Participants in 4 experimental groups received specific treatment through efficient input processing strategies (input-based +/- explicit grammar, task-essential practice and +/- explicit feedback throughout the practice sessions). The study results confirmed that practice was key to trigger improvement; however, a noteworthy result was that, more explicit, metalinguistic feedback was necessary to promote improvement in production. The study by Stafford et al. (2012) suggests that practice can play a determinent role in fostering learners’ improvement in production.

Another study that goes some way in supporting our assumptions, is that by Harun (2013) which implemented CBI to investigate the efficacy of verbalisation during individual and collaborative verbalisation. She aimed to test if through CBI Malay L1 learners of L2 English could enhance their understanding of the simple past, present perfect and past continuous. Results show that verbalisation helped learners to improve
their understanding of the target concepts; use of semiotic mechanisms, and a positive correlation between quantity and quality of verbalisation and learners’ performance. Harun’s findings seemed to confirm that CBI/STI offered more benefits in the learning of metalinguistic aspect of the language rather than use of language, due to its strong emphasis on explicit knowledge.

On testing different types of instruction to enhance language use in context, Bardovi-Harlig (2000) analysed the results of various studies that dealt with the teaching and learning of language use in context for preterite and imperfect forms in Spanish. One of these studies was Cadierno’s (1995) which compared processing instruction vs. traditional instruction on teaching the past tense through elicitation tasks (processing instruction/experimental –grammar explanation and input-based practice). Participants were tested four times (pre, post-immediate after instruction, post-test one week after instruction and final post-test one month after instruction). Cadierno’s (1995) findings demonstrated that both traditional and processing instruction helped learners encode the past, however, learners in the processing groups showed significant improvement and maintained their gains in the delayed post-tests, being able to recognize and rely on the use of the preterite in context (p.345). The author concluded that “…although the tense-aspect system is learnable in classroom settings, researchers cannot yet determine if this is due to the increased input or to the specific noticing activities…” (p. 351).

It is evident that during intervention in our study, not many practice exercises were included for the language in use skill. Practice, as has been demonstrated, contributes to internalization which as Larsen-Freeman (2010) points out, enhances fluency, increases automaticity and leads to restructuring, modifying and reorganizing underlying representations. Our design was more oriented towards the enhancement of metalinguistic knowledge which is in the explicit knowledge ‘spectrum’. According to DeKeyser, (2003, 2007) and in support of the interface position, explicit and implicit knowledge and learning interact directly; consequently, through practice (repeated use), explicit knowledge could be converted into implicit knowledge. This premise allowed us to think that after intervention at least some improvement could have been gained by the participants. The results from the analyses on the LiU test indicated positive change from both groups after intervention; however, no statistically significant difference was
found. This suggests that for language use, intervention may have needed more practice for benefits to be evident in this respect.

The study by Negueruela-Azarola (2003) which is a `benchmark´ in STI research, provides evidence of extensive practice to foster development both metalinguistically and productively, that is language use in context (through learner´s definitions of grammatical concepts; spontaneous learner performance comprising several written and oral language diagnostics; and verbalization consisting of student recordings explaining to themselves the use of specific grammatical features). As Negueruela-Azarola concluded, after intervention with STI his learners were able to attain higher levels of awareness and control over the L2, with the internalization of not only sophisticated semantic understanding of grammatical meanings, but also promoting learners´ ability to effectively and creatively use the relevant grammatical features in spontaneously produced written and oral discourse (p.463). In trying to investigate how to promote the use of the tense-aspect morphology towards a more target-like-use of lexicalization patterns, Robinson, Cadierno, & Shirai, (2009) looked at language in use through comparing the dimensions of increasing tasks demands (high vs. low demanding). Their ultimate goal was to enhance language use and their results confirmed that through a specific type of instruction (conceptually demanding tasks) this could be attained. So, this is something to take into account in future studies which might aim to further refine the implementation of STI tasks and procedures.

In trying to place the concept of language `practice´ within Sociocultural theory, a key question arises: `is it possible to implement “practice” through STI? ´. Vygotsky insisted that theory could not be separated form practice (Vygotsky, 1926/2004). For Vygotsky the `highest´ test of theory was practice; hence, the dialectical unity of theory-practice is praxis. Gal’perin’s STI model within its different phases, sees verbalisation in the form of communicative thinking as the opportunity to provide learners with the component of `practice´. Lantolf (2011) points out that ‘in the absence of intensive and extensive immersion, L2 learners are unlikely to develop implicit automatized competence (i.e., procedural knowledge) (p.37). Instead, L2 learners with primary and unique classroom L2 exposure, build up explicit/declarative knowledge, which through practice can result in `speed-up controlled use´ (Paradis, 2009, p. 8). As Lantolf (2011) suggests, ‘through speeded-up declarative knowledge, learners can become quite fluent and proficient in meeting their communicative needs´ (p.37). Thus, it is through
verbalization, that learners get to the point to use language as they become engaged in *languaging* (Swain, 2006a). As seen previously, among STI/CBI research, most of the research conducted has focused on developing features of language in terms of metalinguistic knowledge and not necessarily on language use as such. STI/CBI indeed aims for the component of practice; however, findings reported in the studies available to date (including the present one) suggest that practice, as advocated by alternative approaches such as Skill Acquisition Theory (DeKeyser, 2007a).

To conclude, my study design specifically targeted the fostering of metalinguistic knowledge rather than language use, i.e., the production of forms in context; which explains why we did not obtain significant results for this type of knowledge. What this could suggest is that the kind of conceptual, metalinguistic knowledge supported by STI in our study does not automatically translate into the ability to produce the targeted forms. Therefore, it is important that STI approaches specifically include the kind of practice activities that would hopefully lead to accurate use of the forms. As we saw in the studies by Cadierno (1995), Stafford et al. (2012), Robinson et al. (2009), and Negueruela-Azarola (2003), practice plays a crucial role in developing language in use.

### 4.2.2. RQ2. The potential effectiveness of STI compared to TI for enhancing EFL teacher trainees’ ability to apply linguistic knowledge to pedagogical practice.

#### 4.2.2.1. Awareness Interview

As reported in the methodology chapter (cf. Section 3.3.3.3.) awareness interviews (AI) served the purpose of providing additional information regarding participants’ metalinguistic and pedagogical knowledge. Following the scoring scheme criteria (cf. Section 3.3.5.2.1.) and after analysing the results drawn from the three questions the findings revealed a consistency in the increased metalinguistic and pedagogical knowledge gains with regard to the concepts of tense and aspect pre and post treatment as reflected in the responses of the participants.

The repeated measures ANOVA comparing the mean of pre-test and post-test Awareness Interviews scores yielded a significant effect of time with a small to medium
effect size, a significant effect of group with a marginal effect size, and a significant interaction between time and group. Independent-samples t-test indicated that the experimental group outperformed the control group in the quality of their answers regarding the targeted concepts. These results confirm a clear improvement from pre to post interview responses reflected in the answers provided particularly in question 2 in terms of metalinguistic knowledge, quality and detail of the answers.

Therefore, it could be assumed that treatment led by STI had a positive effect on the experimental group overpassing the control group in the quality of their AI post intervention answers. When looking at these results in detail, qualitatively, it was found that from the three questions contained within the awareness interview, it was particularly question 2 that had a clearer and marked enhancement in the quality and content of information provided.

To explore in more depth the quantitative results, some of the most salient answers (scored high) from the Awareness Interviews were scrutinized in search of more insights that could give us a wider understanding of the improvement and nature of the participants’ responses. In the following lines some excerpts of these responses from both groups are presented and discussed evidencing the improvement in the quality of participants’ answers from pre to post AIs particularly for the experimental group. Due to space constraints we could only bring into discussion a few of them as a representative sample.

For almost every one of the participants in both groups, their responses for the AI-Q1 in the pre-testing were very basic and in some cases vague; no elaboration or details in metalinguistic terms were found in their answers. In contrast, during the post-testing, conceptualization and articulation of metalinguistic concepts were present in their answers specifically for the experimental group; this suggests that treatment had a positive effect on their knowledge of the concept as attested in both quantitative and qualitative analyses. This was evidenced in the provision of full answers displaying the different variants of the past tense (i.e. simple, continuous, perfect). The examples in Table 30 show how participants from both groups responded to AI-Q1 on both pre and post times. In the table, the difference in the quality of participants’ answers can be observed; the control group provided less accurate and minimal answers with no considerable improvement from pre to post times (P09CTR5); on the contrary, the
experimental excerpt (P10EXP5) shows the evolution from a basic response to a metalinguistically more elaborated one providing a more complete explanation alluding to the past as a ‘grammatical tense’ and providing some of its forms (see Table 30).

Table 30: Excerpts from Responses of Awareness Interviews

<table>
<thead>
<tr>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. What do you know about the past tense in English?</strong></td>
<td><strong>1. What do you know about the past tense in English?</strong></td>
</tr>
<tr>
<td>(P09CTR5) “The past tense is what happened and is finished now”</td>
<td>(P09CTR5) “Past tense is when we talk about events that happened in the past time”</td>
</tr>
<tr>
<td>(P10EXP5) “It is a tense that indicates an action in past, something that was conducted and had an end in time”</td>
<td>(P10EXP5) “The past is a grammatical tense that we use to indicate actions that took place in the past time. It can be in the form of simple past, past perfect and past progressive”</td>
</tr>
</tbody>
</table>

In analysing the data from a qualitative dimension, Awareness Interview question 2 (Table 31) was perhaps the most ‘revealing’ one from the three questions. The answers provided showed a radical change going from a simple ‘no’ for not knowing the difference between tense and aspect to providing more complete and accurate metalinguistic responses specifically for participants in the experimental group. From the responses, it was evident how participants displayed a more ample and detailed account for AI-Q2 answer. During the post AI, participants were able to explain that aspect was about the *perception* or *view* of events and how these could be considered as *having an ending point* (simple) or *being happening* (progressive) as shown in Table 31. This type of explanation reflects a more comprehensive understanding of the concepts, thus suggesting that intervention with STI may have been effective. That is, having a defined conceptual unit of instruction (tense and aspect), materialization through the use of the didactic models like SCOBAs, and having verbalized both individually and collaboratively provided learners with the opportunity to gain further and/or new knowledge (Gal’perin, 1969).

Table 31. Awareness Interview. Question 2 excerpts

<table>
<thead>
<tr>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Do you know the difference between tense and aspect in English?</strong></td>
<td><strong>2. Do you know the difference between tense and aspect in English?</strong></td>
</tr>
<tr>
<td>(P05CTR7) “No”</td>
<td>(P05CTR7) “aspect is like the type of verb, I don’t remember what it is”</td>
</tr>
<tr>
<td>(P04CTR9) “No”</td>
<td>(P04CTR9) “actually I’ve never thought about it; I don’t know the difference between tense and aspect”</td>
</tr>
<tr>
<td>(P04EXP5) “No I don’t”</td>
<td>(P04EXP5) “tense is the way in which we can identify if the verb is in past tense and aspect are characteristics of how we see the tenses as they can be perfect or progressive”</td>
</tr>
</tbody>
</table>
Responses from the post AI-Q2 take us to consider what cognitive linguistics aims proposing ‘constructional meaningful schemas’ rather than rules to capture formal patterns (Reif, 2012: 40). It could be possible that during the post AI, and after having been exposed to various sessions designed to mediate cognitive processes through verbalisation exploring the concepts, participants (from the three different levels 5th, 7th and 9th) gained deeper understanding of the concepts. Hopefully, the intervention went some way towards assisting participants in the development of meaningful concepts emanating from dynamic mental processes of conceptualization as Langacker (2008) points out.

The results of AI-Q2 in its pre and post versions, resemble in part the trajectory of those of the study by Gáñem-Gutiérrez & Harun (2011) also framed within Sociocultural theory under the principles of CBI. The authors set out to investigate the extent to which participants could enhance their knowledge of the concepts of tense and aspect marking in English. Drawing on tests and protocols from individual (think-aloud) and dyadic (pair-work) activity their findings confirmed the effectiveness of CBI, especially verbalisation as a regulatory tool in helping most of the participants gain a deeper understanding of the concept of tense and aspect. As our participants, the students also showed considerable improvement from pre to post versions when tested after the intervention which aimed to enhance their metalinguistic knowledge about the concept of aspect.

Awareness Interview question 3 focused on how participants would incorporate the concepts of tense and aspect into their pedagogical thinking. Similarly to AI-Q1 and AI-Q2, responses for AI-Q3 specifically for participants from the experimental group showed a clear improvement and evolution going from simply considering the inclusion
of ‘explanation of grammatical rules’ to the implementation of using all-inclusive ‘images, diagrams and structures’ (-resembling SCOBAs as some of them mentioned during their communicated thinking stage) to teach the targeted concepts. In the same way that students improved the quality of their answers for AI-Q2, for AI-Q3 participants seemed to have gone from a prescriptive grammatical form of explaining concepts to a more holistic and meaningful way of considering their teaching as they included the idea of perception to explain the concept of aspect as ‘how we view events’.

From these types of responses, it could be thought that intervention based on the pedagogical approach of STI served not only to make them understand the concepts from a different perspective (e.g. cognitive grammar) but also served as a model which might be followed to teach the concepts in question.

As previously mentioned (cf. section 3.3.5.2.2.), it is important to bear in mind that intervention with STI did not include any component on methodology or pedagogy. However, it was expected that due to treatment some positive effects of this may have been reflected in terms of pedagogical knowledge/understanding/thinking with respect to the concepts of tense and aspect and their application to their teaching. Thus, when looking at AI-Q3 post intervention, it was encouraging to notice that participants (from the experimental group) had moved from their awareness interview pre answers of not considering particularly the concept of aspect to include aspect as part of their teaching plan and even from a cognitive linguistics stance. For example, in their responses, they mentioned the use of ‘visuals, images, figures, diagrams’ as well as mentioning the key issue of ‘the view we have of events’ as part of the concept of aspect. Excerpts in Table 32 provide evidence of the evolution from pre to post intervention in participants’ answers to AI-Q3 with regard to their pedagogical thinking and the inclusion of the targeted concepts into this.

Table 32. Awareness Interview. Question 3 excerpts

<table>
<thead>
<tr>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. If you were to teach someone the concept of tense and aspect in English, how would you do it pedagogically?</td>
<td>AI-EXCQ3B(P08EXP5)</td>
</tr>
<tr>
<td>“I will begin with the structure, the subject then you have to put a verb in past tense and then complete sentence and then I will explain that there are regular and irregular verbs and how these change and I will explain the structure of the past tense and I will put examples of the real life and that’s all”</td>
<td>AI-EXCQ3A(P08EXP5)</td>
</tr>
<tr>
<td>2</td>
<td>“First I will ask them about their recently activities they made, then I will write those examples in past tense, then I will explain them the structures with diagrams and images. I will explain the verbs regular and irregular and the forms in interrogative and negative. I will tell them that tense is the time and aspect is how we view events.”</td>
</tr>
</tbody>
</table>
From both quantitative and qualitative analyses of the Awareness Interviews, participants from the experimental group seemed to have gained a better understanding of the concepts of tense and aspect. When they had to transfer these to a pedagogical plane participants from 7th and 9th semester provided more developed and complete answers as requested. Participants from 5th semester showed the least improvement in their AI responses in terms of pedagogical thinking after treatment. A possible reason for this may have been that lower proficiency constrained their ability to transfer newly emerging knowledge to its potential application to pedagogy. This clearly required deeper understanding and the ability to extrapolate different knowledge domains, i.e. metalinguistic and pedagogic. The following section will discuss in more detail how participants deployed the newly learnt concepts pedagogically.

4.2.2.2. Lesson Plans

Lesson plans served the purpose of testing if the treatment might have contributed to enhancing pedagogical knowledge/thinking of participants. Two lesson plans were written by participants, the first one at the beginning of the treatment, and the second one during the communicating thinking stage as part of the activities corresponding to this stage (cf. Section 3.3.4.). The purpose of doing the second lesson plan during that specific session was to have participants communicating with each other as the principle of communicated thinking part of the cycle of STI suggests, to make the concepts understandable to others (Lantolf & Poehner, 2014, p. 66) with a specific goal: creating a lesson plan with their peers aiming to teach the concepts of tense and aspect which they had to do it collaboratively. Thus, from lesson plans two types of analyses served for the discussion that followed: 1) the quantitative analyses of the lesson plan rubrics scores; and 2) the verbalisation uttered during the process of elaborating their lesson plans which was captured in protocols for this purpose (cf. Section 3.3.5.2.2.).

4.2.2.2.1. Plan Rubrics scores

Lesson plans had two main criteria on which they were evaluated: 1) Depth of Metalinguistic knowledge on tense and aspect (MLK), and 2) Evidence of MLK transfer
to Pedagogical thinking (PDK). For this purpose a rubric following these criteria containing a grading scale from 0 to 3 was designed that served as a guide to mark each lesson plan (cf. Section 3.3.5.2.2.); lesson plan scores were analysed first on the basis of MLK and second on PDK.

Analyses from repeated measures ANOVA of the depth of MLK reflected in the lesson plans yielded a significant effect of time with a small effect size, no-significant effect of group with marginal effect size, and no-significant interaction between time and group which indicates that there was an improvement from pre to post times in both groups, however this was minimal. These results indicate that treatment with STI did not have a marked improvement effect on MLK deployed in the lesson plans at least in quantitative terms on any of the two groups over the other (control vs. experimental). A possible reason for this may have been that treatment indeed aimed to enhance MLK on the concepts of tense and aspect, but did not focus on training participants to use these concepts for pedagogical purposes. Therefore, even when participants showed improvement in their test scores on MLK, this was not reflected as such in their lesson plans. By developing a lesson plan it was expected that incidentally participants could have shown some improvement deploying the newly learnt concepts in their lesson plans.

With regard to metalinguistic knowledge transfer into Pedagogical Knowledge (PDK), repeated measures ANOVA comparing the mean pre-test and post-test scores yielded a significant effect of time with a marginal effect size, a non-significant effect of group with a marginal effect size; and a non-significant interaction between time and group. These results lined up with those of depth of MLK deployed in the lesson plans as neither criteria (MLK and PDK) showed any significant improvement over time, nor over group.

Quantitative analyses of lesson plan scores did not provide a detailed account of such minimal improvement in terms of pedagogical thinking. By looking at the analyses results, we could think that both groups ‘improved’ in the same manner as both were given a pedagogically oriented task, i.e. to write a lesson plan. It could have also been possible that the amount of input may not have been enough to be deployed in the lesson plans and that was the reason why no improvement was reported. The need of a longer and more specific component on the pedagogical application of the target
concepts could be another possible explanation. Perhaps, as Williams, Abraham, & Negueruela-Azarola (2013) found in their study examining the implementation of CBI/STI in pre-service and in-service teachers of French and Spanish, in some instances and for a variety of reasons -experienced, novice and pre-service teachers prefer materials, techniques and approaches that are more familiar to them, albeit not as potentially beneficial for learners, i.e. CBI/STI. The authors investigated the extent to which teachers would embrace or reject this pedagogical approach, and examined teachers’ views on the use of learning tools developed under the principles of CBI. The case studies analysed demonstrated that for both sets of teachers (novice and experienced) the CBI approach focused on meaning did not fit well with their preconceived ways of teaching in which language is seen only as morphology and syntax (p.5). In our study, it was expected that during collaborative work the opportunity for participants to mediate their development would have promoted internalization and foster the learning of the concepts of tense and aspect and its subsequent application to pedagogy (van Compernolle & Williams, 2013); however, similarly to the study of Williams et al.(2013) it seems that participants did not manage to apply the principles of STI to their pedagogical thinking.

To broaden our discussion and our scope of view on the findings of the lesson plans data, we proceeded to conduct analyses of the languaging participants uttered while doing the lesson plan; the following section will address this discussion.

4.2.2.2.2. Languageing Episodes

A complementary way of analysing the lesson plans was through the verbalisation or languaging generated during their elaboration. When quantitative results of the lesson plans seemed to indicate that treatment did not have a substantial positive effect in terms of pedagogical knowledge/thinking enhancement, we conducted qualitative analyses on the verbalisation participants produced while elaborating the lesson plans in order to explore this in more depth. Thus, we looked at the number and type of instances of languaging participants uttered so we could learn more about the collaboration between participants as they developed their lesson plans: how they helped each other to understand the topic, how they negotiated the content of lesson plans, or how they planned to teach tense and aspect and why. On analysing the languaging episodes participants produced, we looked at two kinds of episodes:
Metalinguistic Related Episodes (MREs) and Pedagogically Related Episodes (PREs) (cf. Section 3.2.5.2.2.). We will first discuss MREs and second PREs.

The scrutiny of descriptive statistics, which were further analysed by Mann-Whitney tests, suggested that participants in both groups produced comparable number of MREs, with the experimental group producing slightly more PREs. Semesters 7 and 9 for both groups varied more in the amount of MREs and PREs. The control group produced more MREs and PREs in semester 7, and the experimental in semester 9. These results line up with those of depth of MLK reflected on the lesson plans and metalinguistic knowledge transfer into Pedagogical Knowledge (PDK). The fact that semester 7 from the control group produced more MREs and PREs suggests that input through STI intervention was not enough to lead to a significant difference between groups; therefore participants in semester 7 in the control group outperformed their counterparts in this respect. It has to be remembered though, that both groups received the same task for enhancing their pedagogical knowledge/thinking and as discussed in the previous section, intervention with STI focused more on developing the MLK of the concepts of tense and aspect and not specific pedagogy to teach these. Enhancing participants’ pedagogical knowledge/thinking was expected to happen only as an incidental ‘plus’ during treatment. Semester 9 from the experimental group may have been the most benefited ones most probably due to the fact that they were the most proficient ones and possibly may have felt more suited and more confident to use the newly learnt concepts than their peers in semester 7 and 5.

In conducting Pearson correlational analyses, a new window for exploring the results was open, as these provided additional evidence of the effectiveness of STI and how this apparent minimal difference between groups in reality returned a difference worth taking into account. Although descriptive statistics and Mann-Whitney analyses indicated that there was no statistical significant difference between groups’ performance, Pearson Correlation analyses indicated that the experimental group had more correlations within the scores of the lesson plans (MLK and PDK) and amount and type of languaging episodes (MREs and PREs) than the control group. This suggests that even when apparently there was not much difference between groups, the effect intervention had on participants in the experimental group was indeed reflected in the way they languaged and deployed their knowledge of the concepts of tense and aspect in the lesson plans. Pearson correlations indicated that the higher the scores on MREs
the more PREs were produced. Thus, if the experimental group obtained higher scores on both measures that suggests that intervention had a degree of positive effect on participants on how they were able to deploy their pedagogical knowledge/thinking on the lesson plans. Pearson analyses confirmed that in terms of languaging, for the experimental group there was a positive correlation between the amount of languaging produced (Metalinguistic Related Episodes [MREs] and Pedagogically Related Episodes [PREs]) and how this was deployed in the lesson plans in terms of pedagogical knowledge (PDK) as opposed to the control group which did not register this tendency. These results could then be considered as evidence of the potential of *languaging* in second language learning, as it demonstrates that it can act as a mediation tool to regulate thinking and developing knowledge (Swain, 2006a); in this case, the concepts of tense and aspect into a pedagogical plane as was hoped through the design.

On reviewing the literature conducting studies based on CBI/STI for pedagogical reasons, we noticed these were slightly different in terms of design compared to ours. However we coincide in terms of what these studies report on pedagogical proposals based on STI/CBI and in that all studies aim to teach on the one hand, abstract and systematic linguistic concepts to mediate language learning (see García, 2017; Panhwar et al., 2016; van Compernolle & Williams, 2013; Williams et al., 2013) and on the other, to mediate language teachers’ emotions, cognition and activity as Golombek & Doran (2014) and Golombek (2015) have done. In the following sections I will explore further the results in the quest of exploring the potential of STI for developing teacher trainees’ cognition and pedagogical knowledge/thinking as this thesis aims to do.

### 4.2.2.2.1 Metalinguistic Related Episodes (MREs)

As mentioned previously, even when the quantitative statistical analyses suggested there was no significant difference which was interpreted as no considerable improvement on participants metalinguistic knowledge applied to pedagogical practice, analysing languaging episodes qualitatively provided more insight on this. Thus, through this qualitative perspective of the Metalinguistic Related Episodes (MREs) of participants while doing the lesson plans, we identified instances of languaging in which
they would make grammatical allusions or discuss choices of MLK constructions, clarifying, agreeing, giving each other ´hints´ or ´clues´ on tense and aspect.

The exploration in depth of MREs provided evidence that intervention with STI was indeed effective for some participants to understand the concepts of tense and aspect both in metalinguistic and pedagogical terms; qualitative analyses results of languaging episodes were very encouraging. It is important to mention that the languaging related episodes found and presented for evidence in this section were found among participants predominantly from 9ths semester; thus the first assumption that could be made is that perhaps the level of proficiency of participants may have played a role in allowing participants to deploy their knowledge in such a way that would go some way towards improvement.

Another characteristic of the verbalisation phase during elaboration of the lesson plans, was that languaging pertaining to 5th semester registered almost their entire languaging episodes in their L1 Spanish. For 7th semester approximately two thirds of their languaging was conducted in their L1 and the remaining third in L2 English. For 9th semester every protocol was conducted in L2 English. In the case of lower proficiency participants, using the L1 was acknowledged as serving a communication function for learning purposes; as Antón & DiCamilla (1998) suggest ¨within the sociocultural tradition the use of the L1 as an important semiotic tool especially among L2 learners with the same L1 background and low level of proficiency in the second language¨ (p.316). Thus, the examples captured (cf. Section 4.2.2.2.2) in participants’ L1 confirm the usefulness of the mother tongue when co-constructing their knowledge. Furthermore, and also pointed out by Antón & DiCamilla (1998) the L1 has both an inter-psychological function as it allows learners to scaffold new knowledge, access L2 forms, mediate cognitive processes, serve metalinguistic functions, evaluate understanding of the meaning of a text in L2, and Intra-psychological functions e.g. in the shape of private speech.

Hence, the analysis (cf. Section 4.2.2.2.2.) showed languaging episodes in which participants were able to deploy their knowledge of the concepts of tense and aspect and benefit from a cognitive linguistics perspective by starting to consider conceptual units more holistically rather than just alluding to discrete grammatical rules (Ariveitch & Haenen, 2005; Gal’perin, 1989; Williams et al., 2013).
When comparing both groups’ languaging episodes, participants from the control group who received treatment based on Traditional Instruction (TI) did not show evidence of having understood the concepts of tense and aspect in other form but on traditional grammatical rules explanations (see Table 33). Every protocol of the control group containing MREs alluded only to teaching formulas, grammatical structures, and memorization of rules in a traditional and prescribed way. No evidence of holistic conceptual understanding was found in their languaging, as they did not describe concepts in a way that would suggest that they understood these to raise their level of awareness/conceptual thinking as van der Veer (2000, p. 99) suggests.

Table 33 shows the difference between both groups and how they differed substantially in the way they ‘languaged’ their Metalinguistic Related Episodes (MREs). In the table, it is clear that participants from the control group did not go beyond rules to a more thoughtful way of understanding the targeted concepts and remained at all times providing strict grammar rules more from a prescribed grammars approach.

The following representative example MRE-Excerpt 04-Control illustrates how the participants just allude to forming the past tense in terms of morphological changes in verbs with no mention of any other conceptual clue.

(MRE-Excerpt 04-Control)
TB: …what is the past tense for, and the grammar structures and the rules for the regular and irregular verbs… that the regular verbs only add ‘ed’ at the end and the rules like when the verb finish in ‘y’ the ‘y’ changes for ‘e’ and you only add the ‘d’ and that is your ‘ed’ at the end of the verb…

CM: Yes… all the grammatical rules the construction of positive using the verbs in past and the negative and questions using the auxiliary ‘did’...

By contrast, languaging from the experimental group MREs was characterized by showing understanding of the targeted concepts from a more holistic perspective probably inspired by the cognitive linguistics perspective underpinning the materials design. From their languaging, it seems that they understood the concepts at a deeper level and beyond simple memorisation of grammatical rules. Their MREs contained
evidence of discussion and thoughtful thinking as they would ‘negotiate’ the meaning or how they should interpret or understand the concepts:

(MRE-Excerpt 08-Experimental)

PB: …we are going to talk about the past with ‘did’ looking backwards to the past in the timeline so they can understand that is something about the past …

MRE-Excerpt 08-Experimental suggests that learners are visualizing time within tense as a more ample concept and as something longitudinal, i.e. a time line which resembles chronological time passing; a ‘mental space’ or ‘base space’ (Fauconnier, 1997, 2007) (it is noteworthy that no example like this one was found in the control group excerpts). This example lead us to consider what Arievitch & Haenen (2005) point out in explaining Gal’perin’s Three Levels of action, where in ‘Acting at the Material Level’ (first level), ideally, learners should act on concrete, tangible, representations, i.e. models, pictures, diagrams, displays, as actions are based on figurative and operative thinking (p. 158). In this example, participants allude to a ‘time-line’ to exemplify and to figure how to understand better the concept of tense as opposed to aspect. In the tutorials used for the experimental group (see Appendix 9), a time-line was one of the key elements to help students understand the concept of time in a more holistic way rather than just providing them with the only resource of a set of grammatical rules. Moreover, this example shows that participants are exchanging ideas about the concepts being learnt through interaction, i.e. verbalising according to Gal’perin’s Three Basic Levels of the Action, ‘Acting at the Verbal Level’ (second level) (ibid).

MRE-Excerpt 09-Experimental shows how participants talk about the concept of past tense as having a ‘temporal-relation’ between the communicative situation and the situation communicated (Reif, 2012, p. 70); as both participants talk about the concept they are acknowledging that the concept of past tense is a temporary one. The concept is being explained and ‘communicated’ between participants from a more ample conceptualisation as they refer to ‘something that had a beginning but has finished’. Instead of only relaying on grammatical rules, participants are explaining to each other the concepts in a more holistic way, situating the concept of tense on the basis of a ‘temporal-relation’ with regard to the present moment.
Another example of the effects of intervention with STI was captured in the way participants were able to acknowledge the concept of aspect. When alluding to aspect, it was noticeable that the idea of ‘duration’ and ‘boundness’ was present for the learners as they were able to explain to each other that aspect was about the ‘duration’ of the action: ‘if the action had a beginning and an end point’. It is the idea of perceiving and seeing events as completed/bounded or in progress/unbounded that cognitive linguistics proposes to better capture the concept of aspect which determines if the action is seen from a distant or outside perspective (Fauconnier, 1997, 2007; Reif, 2012; Niemeier & Reif, 2008). This is clearly observed in the MREs deployed in example MRE-Excerpt 10-Experimental in which participants are talking about the ‘limits of the action’ alluding to its duration:

(MRE-Excerpt 10-Experimental)

GC: …to tell the students the ‘limits’ of that action to indicate that the action is finished and the action does not continue in the present or the future...

PB: … Yes...

Excerpts like these ones suggest that, although quantitative analyses did not report a statistically significant difference among groups; from a qualitative perspective it is evident that intervention with STI had some positive effect on participants, which will hopefully lead to a better understanding of the concepts of tense and aspect. Throughout these excerpts we can observe participants discussing the concepts at a deeper level of thought giving more holistic explanations of the targeted concepts as deployed in their languaging episodes. Another insight on this is MRE-Excerpt 09-Experimental which carries on from the previous excerpt and which is shown next. In it, it is noticeable how participant MD explains to his peer PB what aspect is about and PB replies with a ‘I know, I know that…’ and provides the definition demonstrating he has understood the concept:
MD: …that is in reality the aspect when we say that it finished!... that is when we are referring to the aspect...

PB: ... I know... I know that... that aspect tells like the duration of the action...

Some other examples such as MRE-Excerpt 07-Experimental (below) provide more evidence of the potential of STI, showing participants’ deployment of the concepts as noticing the difference between tense and aspect describing them as conceptual units rather than as exclusively grammatical rules of patterns or structures. This is shown in the interaction participants are having as participant ES first puts forward the definition of the concept of aspect seemingly for his peer to ‘approve it’, hoping to be assured that what he is posting is ok. Subsequently, participant NM provides a more accurate and explicit correction with a more cognitive linguistics conceptual explanation. Evidently, in questioning and answering both participants are immersed in the dynamics of co-constructing and developing their knowledge about how the concept of aspect does work. Participant ES answers confirming he has ‘got it’ (understood) which suggests that the explanation of his peer (NM) helped him (ES) to understand the difference between one concept and the other.

(MRE-Excerpt 07-Experimental)

ES: So progressive, it is the tense, is that right?

NM: No, no, no, it’s not like that, look, it is.... it is.... aspect progressive is how we see the events happening... and perfect is how things happened... like in the tutorial... do you remember? If they finished or they were happening...

ES: Ohh, I see, I got it...

As Fortune & Thorp (2001) point out, “…through collaborative work dialogue triggers developmental processes, such as language development… thus …all learning derives from social interaction, taking place first on an interpersonal level before becoming intrapersonal...” (p.143). In this case, learners were clarifying and working collaboratively on understanding the concepts of tense and aspect.
Another interesting finding regarding the holistic understanding of conceptual units as STI aims was participants’ understanding of the categories of *states* and *events*. In MRE-Excerpt 06-Experimental we can see participant CG seeking ‘confirmation’ from his peer PB about the query he has just posted on verbs classifications. In it, we can see how participant PB answers CG’s query, confirming what CG was not sure about.

(MRE-Excerpt 06-Experimental)

CG: *Verbs... ehh some were ehh... some indicated ‘events’ and ‘states’, right?*

PB: *Yes... besides they are regular and irregular verbs can be classified in events and states...*

In the next example we can see how participant PB is providing his peer with an example for a better understanding of the difference between ‘states’ and events’. It seems as if he was trying to make sure that his peer would understand this difference; again, it is in collaborative work that learners seem to be co-constructing their knowledge (Swain, 2006; Fortune & Thorp, 2001).

(MRE-Excerpt 08-Experimental-continuation)

PB: *...this would serve to understand what are ‘states’ and ‘events’, for example ‘I am Mexican’ ahh that’s a ‘state’...*

On seeing how participants went from not being able to identify the concept of aspect at all, to at least beginning to explain it and describe in terms of more conceptual units we can see that intervention with STI was positive. These findings confirm that learners started to understand the targeted concepts and were able to apply them in their pedagogical thinking. Our results seem to be in line with those of Swain et al. (2009) where participants receiving treatment which consisted of mediation through verbalisation, i.e. languaging on the grammatical concept of voice, participants tested before and after intervention demonstrated gains in their understanding of the concept of voice. Moreover, Swain et al. (2009) identified a pattern that suggested a positive relationship between the quantity of students’ languaging and the ability to correctly identify the voice in a sentence and provide reasons for their identification. In a similar way, the positive patterns we found in the correlations between metalinguistic knowledge (MLK) deployed in their lesson plans and the amount of metalinguistic
related episodes (MREs) produced while elaborating these seem to be consistent with those of Swain et al. (2009).

In sum, qualitative analyses of MREs suggested positive moves between pre and post intervention, which indicates that, even at a small scale, some participants seemed to have evolved and gained more insight of the concepts of tense and aspect as registered in their languaging episodes. I will now proceed to the qualitative analyses and discussion of the PREs in the following section.
Table 33: Metalinguistic Related Episodes (MREs)

<table>
<thead>
<tr>
<th>Turn</th>
<th>Ptpnt</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>SM</td>
<td>Will you explain the structures of how to form the past tense? While I write the sentences I will be explaining the structure of the past tense… that for affirmative sentences we use the verb in past and for negatives and questions we use the auxiliary did…</td>
</tr>
<tr>
<td>07</td>
<td>DC</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>CB</td>
<td>Ahh ahh ahh, past tense so in the simple how is formed: …the four different aspects that exist in the past and give, and provides the patterns that they need to follow the different past tenses in the past; so we have simple that is subject plus verb in the past plus complement, right?</td>
</tr>
<tr>
<td>06</td>
<td>CD</td>
<td>Yes ok showing how to do it following the examples of the teacher</td>
</tr>
<tr>
<td>09</td>
<td>CR</td>
<td>OK… the regular and irregular formation of verbs… that the regular only add ‘ed’ and the irregular change their form… Exactly!</td>
</tr>
<tr>
<td>10</td>
<td>AC</td>
<td>Yes… and we also show the structure how to form sentences in past tense with the verbs in past for affirmative sentences by using the auxiliary did for negatives and questions.</td>
</tr>
<tr>
<td>04</td>
<td>TB</td>
<td>You know? …what is the past tense for, and the grammar structures and the rules for the regular and irregular verbs… that the regular verbs only add ‘ed’ at the end and the rules like when the verb finish in ‘y’ the ‘y’ changes for ‘e’ and you only add the ‘d’ and that is your ‘ed’ at the end of the verb…</td>
</tr>
<tr>
<td>05</td>
<td>CM</td>
<td>Yes… all the grammatical rules the construction of positive using the verbs in past and the negative and questions using the auxiliary ‘did’ all is part of the explanation we are going to give them in the first part of the presentation…</td>
</tr>
<tr>
<td>08</td>
<td>BR</td>
<td>So then we first explain the structure in affirmative that carries the verb in infinitive, then from there we pass to the negative form and we explain how the ‘did’ is the one used to make a negative statement with the ‘not’ and that the verb remains in infinitive…</td>
</tr>
<tr>
<td>09</td>
<td>BC</td>
<td>Yes, and finally we explain the interrogative form and how to pass the ‘did’ to the beginning of the sentence and the verb goes back to its infinitive form…</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turn</th>
<th>Ptpnt</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>CG</td>
<td>Verbs… ehh some were ehh… some indicated ‘events’ and ‘states’, right?</td>
</tr>
<tr>
<td>103</td>
<td>PB</td>
<td>Yes… besides they are regular and irregular verbs can be classified in events and states…</td>
</tr>
<tr>
<td>52</td>
<td>NM</td>
<td>Isn’t it? the tense is ‘past progressive’</td>
</tr>
<tr>
<td>53</td>
<td>ES</td>
<td>No, present, past and future; and the aspects are progressive and perfect…… aspect progressive is how we see the events happening… and perfect is how things happened… like in the tutorial… do you remember? If they finished or they were happening…</td>
</tr>
<tr>
<td>105</td>
<td>PB</td>
<td>…here we place the ‘do’ and now we are going to talk about the past with ‘did’ looking backwards to the past in the timeline so they can understand that is something about the past …</td>
</tr>
<tr>
<td>106</td>
<td>CG</td>
<td>And I think we could put ‘did’ as it is verb ‘do’…</td>
</tr>
<tr>
<td>109</td>
<td>PB</td>
<td>…This would serve to understand what are ‘states’ and ‘events’, for example ‘I am Mexican’ ahh that’s a ‘state’…</td>
</tr>
<tr>
<td>102</td>
<td>MD</td>
<td>…We could also put a little explanation at the beginning stating that the past ‘had a beginning but has finished’…</td>
</tr>
<tr>
<td>103</td>
<td>CM</td>
<td>… We need to put an auxiliary in negative to create negative little sentences…</td>
</tr>
<tr>
<td>79</td>
<td>GC</td>
<td>We are also going to tell the students the ‘limits’ of that action to indicate that the action is finished and the action does not continue in the present or the future…</td>
</tr>
<tr>
<td>80</td>
<td>PB</td>
<td>Yes…</td>
</tr>
</tbody>
</table>
4.2.2.2.2 Pedagogical Related Episodes (PREs)

Pedagogically Related Episodes (PREs) provided insights into how participants orally displayed and showed evidence of being able to transfer the metalinguistic knowledge gained through treatment into a pedagogical plane by means of a lesson plan done collaboratively with their peers. In this section, I will discuss these episodes following the pattern I used for Metalinguistic related Episodes (MREs).

As previously explained in the methodology chapter (cf. Section 3.3.5.2.2.) through microgenetic analyses we identified instances of language uttered by participants for pedagogical purposes (PREs) which alluded to basically: 1) pedagogical considerations, explanations and rules; and, 2) decision making and negotiation of content.

Although quantitative analyses of Pedagogical Related Episodes (PREs) returned no significant statistical difference between groups from pre to post intervention, to further understand these results, qualitative analyses were conducted to explore in greater depth the content and type of the Pedagogical Related Episodes (PREs). Due to space constraints it was only possible to select a few excerpts for the discussion in detail; these are all displayed in Table 34 at the end of this section.

Similar to the findings in MREs, qualitative analyses of PREs indicated that the excerpts containing more evidence of effectiveness of intervention with STI for pedagogical purposes were concentrated predominantly in 9th semester in the experimental group. These results could suggest that likewise to the case of MREs, the proficiency level of participants may have influenced the degree of benefit learners could achieve with regard to the production of PREs. Thus, the first type of Pedagogical Related Episodes (PREs) found among participants’ languaging alluded to pedagogical considerations, which referred particularly to how to explain and exemplify the concepts of tense and aspect as shown in PRE-Excerpt 06-Experimental:
(PRE-Excerpt 06-Experimental)

CG: ... after, more ahead we are going to say we are going to explain them the ‘states and events’ ...

PB: ...it is important to mention that they have ‘a beginning and an end’, from there we go to the next; here maybe it’s important to demonstrate that verbs have conjugations, isn’t it? ...

GC: And that verbs have classifications and conjugations, isn’t it?

PB: ... That’s right and there to ‘make a timeline’ ...

As can be observed in PRE-Excerpt 06-Experimental above, participants are trying to arrive to an agreement on ‘what to teach’, i.e. what to include in their lesson plan. Participant CG indicates that they should explain the states and events. Furthermore, participant PB points out the idea of duration and the ‘importance’ of mentioning that verbs have a beginning and an end. From a pedagogical point of view, participants seem to be transferring (at least to a certain extent) the metalinguistic knowledge on tense and aspect to a pedagogical plane in the most suitable form. Based on these types of PREs found in the data, it could be assumed that considering metalinguistic explanations of this nature was the result of intervention based on STI, as these were precisely the concepts targeted by the means of the materials. Another noteworthy point is the fact that participants did not receive specific pedagogical training for teaching the concepts of tense and aspect. Talking about verbs and how these are classified as states and events and their duration is a holistic view drawing on cognitive linguistics (Fauconnier, 1997; Langacker, 2008; Radden & Dirven, 2007; Reif, 2012). PRE-Excerpt 06-Experimental shows evidence of how participants tried to incorporate the notions of states, events, and duration into their lesson plans, which was ultimately a desired outcome even when no specific pedagogical training had been implemented. Thus, pedagogical knowledge/thinking was only expected to happen incidentally and naturally after intervention. Trying to consider the element of pedagogical knowledge/thinking within the sphere of influence of STI was perhaps too ambitious; however, we have some glimpses of STI being promising enough to trigger this type of knowledge/thinking into transfer to a pedagogical plane. A further illustration of this is shown in the following example:
PC: We can make a lesson plan that shows us how we can describe perception...

We can start by putting the verbs that can describe events and states and... for example in events we can say the verb like ehh ‘construir’ because it is ‘to build’ and it is just a verb that implies internal development and is dynamic because requires movement...

ES: Ok, but how could we teach that? How should we include that in a lesson plan?

PC: We can do activities where it requires movement in a dynamic way...

PRE-Excerpt 07-Experimental provides more evidence of the potential effectiveness of intervention in terms of pedagogical thinking. The example shows how participants are beginning to incorporate metalinguistic explanations from a more holistic perspective into a pedagogical plane, as they bring other features to consider as part of their strategy for teaching the concepts of tense and aspect. Participant PC alludes to the incorporation of the concept of ‘perception’ in addition to the concepts of ‘states and events’ as an important element to explain within their lesson plan. He goes further, suggesting the incorporation of verbs to exemplify this as ‘construir’ (he cites the example in Spanish) comparing it with its equivalent in English ‘to build’ as this verb implies having an internal development and dynamicity as it requires movement. When asked by his peer participant ES ‘how they would teach that’ PC suggests doing this through the use of activities which require movement in a dynamic way. These examples suggest that the idea of relying on conceptual units as the means for fostering internalization for further development (Negueruela-Azarola, 2003) may have been effective with this set of participants, as their languaging episodes allude to holistic ideas and concepts they are beginning to use. This type of languaging was not found in any protocol from the control group.

Other examples of Pedagogical Related Episodes (PREs) allude to ‘decision making’ and ‘negotiation of content’ of the targeted forms. Excerpts found within the experimental group seemed to indicate that participants were aware of the importance of making their potential learners understand the perspective of time in the most realistic possible way. The concern from part of these potential language teachers on making sure their learners understood the perspective of time in a broader and more holistic way
possible appears as important when they suggest for instance, the use of a *timeline* in PRE-Excerpt 08-Experimental. Similarly, in PRE-Excerpt 09-Experimental they seem to become aware (perhaps unconsciously) of the importance of the Schema of Complete Orienting Basis of Action (*SCOBAs*) during intervention as they consider this element crucial within the design of their lesson plans and they seem to be moving away from the exclusive use of grammatical rules, thus, prescribed grammars did not seem as an option for these participants.

(PRE-Excerpt 09-Experimental)

**BR:** *You know... but we should not just use grammar rules on the board, we can use some pictures to make it more realistic... right?*

*Like in the slides, the students have to see the real difference between tense and aspect, they have to see that aspect is more of how they perceive the action happening, we have to explain that to them, they need to know that...*

**BR:** *... Yes... but we want the students to go bit by bit and we cannot bombard them with just grammatical explanations... I think the idea of images is good and entertaining for them...*

Seeing participants taking into consideration these elements, suggests that during intervention they were able to notice the importance of having mediational tools, i.e. *SCOBAs* in the form of visual aids demonstrating the concepts as whole ideas, and that seems to have resulted in a desire to incorporate them within their lesson plan’s design.

Even though the excerpts containing some evidence of effectiveness of the incorporation of the concepts of tense and aspect into pedagogical thinking were few (quantitatively speaking); the quality these showed indicate intervention worked. As shown in Table 34, the contrast between control and experimental group languaging episodes alluding to the target concepts was evident.
### Table 34: Pedagogically Related Episodes (PREs)

<table>
<thead>
<tr>
<th>EXP 05</th>
<th>EXP 04</th>
<th>EXP 03</th>
<th>EXP 02</th>
<th>EXP 01</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table</strong></td>
<td><strong>Exp</strong></td>
<td><strong>Turns</strong></td>
<td><strong>Languaging</strong></td>
<td><strong>Language</strong></td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td><strong>PRE</strong></td>
<td><strong>PTC</strong></td>
<td><strong>CM</strong></td>
<td><strong>DA</strong></td>
</tr>
<tr>
<td>12</td>
<td>105</td>
<td>...and once the students have seen the change in the form of the verbs, then the teacher gives the explanation of the grammatical rules...to show them the structures like the formulas to make the past...</td>
<td><strong>PC</strong></td>
<td>110</td>
</tr>
<tr>
<td>13</td>
<td>103</td>
<td>...so they write their story in the past tense following the format and the rules for the past...</td>
<td><strong>PB</strong></td>
<td>111</td>
</tr>
<tr>
<td><strong>Experimental</strong></td>
<td><strong>EXPERIMENTAL</strong></td>
<td><strong>Turns</strong></td>
<td><strong>Languaging</strong></td>
<td><strong>Language</strong></td>
</tr>
<tr>
<td>08</td>
<td>SH</td>
<td>Yes, we have to explain the three basic forms of the simple past: affirmative sentences, negative and interrogatives.</td>
<td><strong>PC</strong></td>
<td>02</td>
</tr>
<tr>
<td>09</td>
<td>AR</td>
<td>Yes, I think the same, we have to give them the grammatical structures of how to form sentences...that sentences in past simple in affirmative conjugate the verb in its past form...and there are two types of verbs: regular and irregular and explain them how they are formed...</td>
<td><strong>ES</strong></td>
<td>05</td>
</tr>
<tr>
<td>03</td>
<td>CM</td>
<td>Ok... I think is ok... ok ok... so 'first of all'... as a teacher we can tell a little story or passage of a moment in the past... ...the PPP for the uses, characteristics, the grammar structures... and the rules of irregular verbs...</td>
<td><strong>PC</strong></td>
<td>06</td>
</tr>
<tr>
<td>55</td>
<td>SA</td>
<td>And to explain... and to make a comparison of the simple past and past continuous, when and in which cases to use the past continuous, mmm, give them examples and to teach them that they can use, make 'combos' with these two grammatical structures...</td>
<td><strong>BR</strong></td>
<td>09</td>
</tr>
<tr>
<td>58</td>
<td>DC</td>
<td>...I think they could have a conversation only talking in the past tense and later when they are at a more advanced level they can blend all the tenses...</td>
<td><strong>OS</strong></td>
<td>10</td>
</tr>
<tr>
<td>103</td>
<td>BC</td>
<td>teacher introduces the past tense in general terms, this means that teacher explains that the student can use this tense to express actions that took place in the past, ok? Then teacher explains the four different aspects that exist in the past, so we can change this table and we can have here the simple, the progressive, the perfect and perfect progressive... and provide the students the patterns that they need to follow the different past tenses in the past; so we have simple that is subject plus verb in the past plus complement...</td>
<td><strong>BR</strong></td>
<td>11</td>
</tr>
<tr>
<td>105</td>
<td>CD</td>
<td>...we also are going to include the explanation of aspect in this section... what do you think?... need to know that tense and aspect are two different things but work together, well I guess that’s it...</td>
<td><strong>AL</strong></td>
<td>09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>...after, more ahead we are going to say we are going to explain them the 'states and events'...</td>
<td><strong>AL</strong></td>
<td>10</td>
</tr>
</tbody>
</table>

156
As I hope I have illustrated, qualitative scrutiny of the languaging episodes, suggested, that even when few, the results were noteworthy and go some way towards demonstrating that STI was effective in enhancing metalinguistic knowledge. In this respect, our results, both quantitative and qualitative are consistent with those of van Compernolle (2018). When looking at his data from a quantitative point of view no statistical differences were found; however, differences were observed in participants’ understanding of the target forms when seen through qualitative analyses of the data. Thus, an analysis of the data from both perspectives (quantitatively and qualitatively) confirmed that intervention contributed to a certain degree to enhance participants’ conceptual understanding of the concepts of tense and aspect on the basis of STI instruction.

Overall, the findings drawn from lesson plans’ data, i.e. MLK and PDK deployed in these, along with the languaging episodes (MREs and PREs) confirmed what Swain and colleagues have been advocating for some time now. That is, from a Sociocultural theory perspective, languaging is one of the most powerful mediation tools for co-construction of knowledge and to foster development in second language learning (Brooks, Swain, Lapkin, & Knouzi, 2010; Swain, 2006b; Swain & Lapkin, 2013; Swain, Lapkin & Deters, 2013; Swain et al., 2009).

4.3. RQ3. What insights into STI can be derived from a case study approach to languaging? The case of the top scorers (Results and Discussion)

Previous sections of this chapter, that is, the results and discussion relating to research questions 1 and 2, adopted a global or group based approach to the data. In what follows, I have adopted a case study stance in order to gain an in-depth perspective into STI generally, and languaging, more specifically. The aim of this approach was to explore the relative value of the two STI components (the SCOBAs themselves and verbalisation) as a means to also contribute to a crucial question pertaining to studies of interaction as a key environmental factor in L2 learning (see, for example, Mitchell, Myles, & Marsden, 2013,
What specific mechanisms, activated during interaction, appear to promote L2 development\(^1\)? To that end, and as mentioned in Chapter 3, I conducted descriptive microgenetic analyses of the languaging between top scorer participants, Belem and Alexander and their respective partners Shirley and Oscar (all names are pseudonyms). This is so that I could trace emergent, moment-to-moment, developmental processes (Lantolf & Poehner, 2014, p. 24) activated during two of the verbalisation events which took place as part of the STI intervention. Please note the verbatim full transcription (and gloss) of the ‘communicated thinking’ events (henceforth CTEs) in focus can be found in Appendix 14.

At the heart of this events lie two central and interrelated points regarding the target concept and which were mentioned in the SCOBAs: 1. Grammatical aspect (the tool which allows us to convey a particular view of a situation) and 2. Trying to help students realise that verbs intrinsically evoke certain characteristics in our minds (lexical aspect). In this particular instance, the SCOBAs the students were referring to highlight distinctions between events and states. In this section, I argue that there is evidence in the data of the potential of STI for helping students better understand aspectual distinctions in English, in other words, evidence of microgenesis in relation to these two points.

As outlined in the Method chapter (Section 3.3.5.3), in order to contextualise the case studies chosen for the qualitative (microgenetic) analysis of their languaging activity, I will first present a quantitative comparison between the two top scorers from the experimental group and the two top scorers from the control group. This will help to see the contrast and differences between them. These participants were “Janet” and “Roxana” from the control group and “Belem” and “Alexander” from the experimental group (section 4.3.1). I will then proceed with microgenetic analyses whose primary aim is to contribute to the L2 learning field by further understanding the characteristics and mechanisms which form the basis of L2 learners’ languaging activity (section 4.3.2). This, in turn, is important

---

\(^1\) In this section, I have adopted and adapted Gánem-Gutiérrez & Gilmore’s definition of L2 development to refer to an “increasing and transformative ability to make use of [language, in this case L1] to communicate as well as to mediate our understanding of the world through the lens of our enriched linguistic repertoires and competencies” (Gánem-Gutiérrez & Gilmore, 2018, p. 22). In other words, although languaging between Belem and Shirley takes place in the L1 (Spanish), I argue that we are evidencing L2 development (albeit at a metalinguistic level).
if we are going to better understand how and why interaction and collaboration are important for L2 development.

4.3.1. Comparison between the top scorers from control and experimental groups: Language in Use test, Metalinguistic Knowledge test, Awareness Interview, Lesson Plan scores; type and number of Languaging episodes

Table 35 shows the scores and percentages of participants per case from each group (control and experimental) contrasting their Language in Use (LiU) test results. Jannet (ctrl) and Belem (exp) registered a similar improvement on their LiU scores. Roxana (ctrl) did not register any improvement on her LiU scores; and Alexander (exp) improved by 10% from pre- to post-test which was the highest gain reported for this test not only for the case studies, but among all participants.

Table 35: Comparative table of LiU per case

<table>
<thead>
<tr>
<th></th>
<th>PRE</th>
<th>POST</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ctrl</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jannet</td>
<td>(21) 67%</td>
<td>(23) 74%</td>
<td>+7%</td>
</tr>
<tr>
<td>Roxana</td>
<td>(21) 67%</td>
<td>(21) 67%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Exp</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belem</td>
<td>(25) 80%</td>
<td>(27) 87%</td>
<td>+7%</td>
</tr>
<tr>
<td>Alexander</td>
<td>(15) 48%</td>
<td>(18) 58%</td>
<td>+10%</td>
</tr>
</tbody>
</table>

Note: All names are pseudonyms. Numbers in parenthesis are the actual points scored in the test.

The results of the Language in Use test indicated a minimal improvement of 3.5% on average for the control cases; and 8.5% for the experimental cases. As the degree of improvement registered was marginal, we cannot say that SCOBAs and verbalisation had an impact on this measure especially when the whole sample of the study registered a similar pattern with no considerable improvement. Thus, it could be assumed that intervention –including both components of STI (SCOBAs and verbalisation) -did not contribute much in this respect, a result which was not surprising (cf. Section 4.2.1.3.).

When looking at the Metalinguistic knowledge (MLK) test scores per case as displayed in Table 36, all cases of participants registered an improvement during the post
test. However, the experimental set shows a higher improvement, above 25.5% on average as opposed to the control set, where we can see 4.5% of improvement on average from pre- to post-testing times. For the delayed test, both sets of participants registered an attrition effect from post to delayed testing times. The control set decreased 6% on average in their scores; Janet’s scores went back to the same level she got during the pre-test and Roxana’s went lower than her pre-test scores. For the experimental set, the attrition effect registered was 4.5% on average; both Belem’s and Alexander’s delayed scores remained higher than their pre-test scores which is relatively low compared to the gains obtained from pre- to post-testing (25.5% on average).

Table 36: Comparative table of MLK scores per case

<table>
<thead>
<tr>
<th></th>
<th>MLK</th>
<th>PRE</th>
<th>POST</th>
<th>Difference</th>
<th>Delayed</th>
<th>Difference (b/w post &amp; delayed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl</td>
<td>Jannet</td>
<td>(30) 52%</td>
<td>(31) 54%</td>
<td>+2%</td>
<td>(30) 52%</td>
<td>-2%</td>
</tr>
<tr>
<td></td>
<td>Roxana</td>
<td>(25) 43%</td>
<td>(29) 50%</td>
<td>+7%</td>
<td>(23) 40%</td>
<td>-10%</td>
</tr>
<tr>
<td>Exp</td>
<td>Belem</td>
<td>(35) 61%</td>
<td>(45) 79%</td>
<td>+18%</td>
<td>(43) 75%</td>
<td>-4%</td>
</tr>
<tr>
<td></td>
<td>Alexander</td>
<td>(23) 40%</td>
<td>(42) 73%</td>
<td>+33%</td>
<td>(39) 68%</td>
<td>-5%</td>
</tr>
</tbody>
</table>

Note: Numbers in parenthesis are the actual points scored in the test (maximum possible score was 57 pts =100%).

Metalinguistic tests were the most direct instrument by which the effectiveness of STI could be measured, since these were exclusively designed to test the degree of MLK participants had prior to intervention, post intervention and in delayed testing a month after intervention. Thus, results drawn from MLK tests reflected the degree of impact intervention had on participants as the information contained within was explicit metalinguistic knowledge regarding the target concepts of tense and aspect. These results therefore suggest that treatment had a positive impact in enhancing participants’ metalinguistic knowledge.

Previous studies based on the implementation of SCOBAs as one of the central elements of STI (see Golombek & Doran, 2014; García-Frazier, 2013; González & Melón, 2013; Lee, 2012; 2016; Navajas & Ferrer, 2012; Negueruela-Azarola, 2003; Ohta, 2017), have suggested positive effects of this pedagogical tool to teach a variety of linguistic features, i.e. prepositions, tense and aspect, phrasal verbs or Spanish modality amongst
others. It is evident that in our study this didactic model also appears to have contributed to a better understanding of a complex concept such as aspect and which hopefully might contribute to its eventual internalisation. In particular, our results resemble those of Gánem-Gutiérrez (2016) who set out to investigate the extent to which a group of six students would benefit from the use of SCOBAs to enhance their understanding of the tense-aspect system in a Spanish L2 context.

The results from the awareness interviews (AI) showed a difference between both control and experimental cases as displayed in Table 37. Jannet and Roxana from the control set did not show any change in the type of answers they provided from pre- to post-interviewing. By contrast, Belem and Alexander’s answers from the experimental set suggested changes from pre to post-interviewing; the former increased her post-AI responses scores by 44% and the latter by 33%.

<table>
<thead>
<tr>
<th>Table 37: Comparative table of Awareness Interview scores per case</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Awareness Interview</strong></td>
</tr>
<tr>
<td><strong>Ctrl</strong></td>
</tr>
<tr>
<td>Jannet</td>
</tr>
<tr>
<td>Roxana</td>
</tr>
<tr>
<td><strong>Exp</strong></td>
</tr>
<tr>
<td>Belem</td>
</tr>
<tr>
<td>Alexander</td>
</tr>
</tbody>
</table>

Note: Numbers in parenthesis are the points scored in the interview.

The Awareness Interviews results provided further evidence of the SCOBAs’ potential, particularly when we look at AI question two (AI-Q2) since this one was directly related to the definition of the metalinguistic concepts of tense and aspect. This specific item echoes similar results to those reported in Gánem-Gutiérrez (2016) and where results appear to reflect a clear cut transition from pre- to post-intervention in their understanding of the target linguistic concepts. Furthermore, Ohta (2017) investigated the implementation of SCOBAs on teaching Japanese addressee honorifics which are clause-final forms that express modes of self also guided by Japanese wakimae rules. Her study was conducted on adult learners in a summer intensive third-year Japanese class; from this poll of students, she selected one case study (Felicia) for analysis. Her findings also confirmed the
effectiveness of SCOBAs on the principle that SCOBAS provide learners with opportunities to interact with the materials working either individually or collaboratively verbalising (speaking or writing) their understanding of a concept. The case of Felicia provided insightful information with regard to the effectiveness of intervention with the SCOBAs as she was able to report an understanding of the concept by providing a complete definition and use of it. The author reported Felicia’s post-performance reflections as ´strikingly´ different from the doubtful assessment of her first performance. Felicia demonstrated a solid understanding of the modes of self framework as a very complex speech style in Japanese with its own uses for politeness related to peoples´ age and social status. Felicia’s reflections on her pre- and post-–instruction performances were compared in terms of how specifically she evolved from a lack of confidence in her understanding of wakimae leading to the potential of offending Japanese people. Post treatment, she was able to share appropriate examples of how to properly use modes of self might mix and she was able to comfortably express herself choosing appropriate forms.

Prior to intervention, the experimental cases were not able to explain or even mention a minimal characteristic which would differentiate the concept of tense from aspect. While all four cases started from no knowledge, after intervention, the responses given by participants in the experimental cases provided more elaborate, accurate and complete explanations. Participants went from not being able to identify the concept of aspect to giving examples of it, explaining the concept from a holistic point of view and being able to elaborate on the idea of perception, point of view and duration in relation to aspect. Explaining the types of aspect as simple or progressive became clear not only for the case studies from the experimental set, but for the whole experimental group (cf. Section 4.3.1.). All in all, the participants were able to at least start grasping some of the essence involving aspectual distinctions, i.e. grammar as a tool which allows us to signal contrasting views of “the internal temporal constituency of a situation” (Comrie, 1976, p. 3).

This is specifically exemplified in the case of Belem who made the transition from knowing nothing of the concept of aspect to being able to discern more clearly between the concepts of tense and aspect and providing definitions from a more holistic view as
cognitive linguistics suggest. She defined aspect in terms of duration and completeness as it was explained in the SCOBAs.

(AI-Excerpt-Case Study 1-EXP)²

Belem’ (PRE-AI-Q2): *Tense is the way a verb is conjugated, aspect I don’t know.*

Belem’ (POST-AI-Q2): *The tense tells us the time in which the activity happened like present, past or future; aspect is the perception we have of the activities like the duration if it is in progress or if it concluded.*

The SCOBAs seem to have provided the participants with the opportunity to explore and understand these concepts from a different approach, e.g. enabling them to visualize through the materialization of the concept. The grammar explanations and exercises the control group depended on did not appear to have rendered similar results; these participants were not able to provide even a minimal account of aspect as some examples demonstrate in Table 38.

**Table 38: Comparative table of Awareness Interview responses per case**

<table>
<thead>
<tr>
<th>Awareness Interview answers</th>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jannet</td>
<td>Q1. It is used for actions that started and finished in the past in a specific time, in the verbs there are two types: regular and irregular. Q2. Tense is when the action was done.</td>
<td>Q1. The past tense is what we use to speak of actions that happened in the past in a time that is no more happening. It uses the verbs in past tense regular and irregular. Q2. I don’t remember</td>
</tr>
<tr>
<td>Roxana</td>
<td>Q1. Regarding the past tense I know that it is used for actions that occurred in the past and were completed in the past and have no relation with the future. Q2. NO ANSWER PROVIDED Q3. I would write on the board the verb first in present and then in past form and teach them the pronunciation and make sentences using these same verbs and after they’ll have to do a writing activity with these verbs and others.</td>
<td>Q1. The past tense indicates actions that happened in the past, actions that are not occurring anymore. Q2. Uhh I don’t remember Q3. I will show them that in past tense we write sentences with the verbs in a different way like the verbs conjugations; and then I will show them how to write sentences in past tense like the structure and the verbs (regular and irregular). Then I will ask them in pairs to do some sentences.</td>
</tr>
<tr>
<td>Belem</td>
<td>Q1. Well, it is used for past actions, regular verbs are formed with an ‘ed’ at the end of the verb and the regular verbs can change depending on the verb. Q2. Tense is the way a verb is conjugated, aspect I don’t know.</td>
<td>Q1. The past tense is to refer to actions that happened in the past and that have finished. It is formed with the verbs in past form regular (ed) and irregular that change their form. Q2. The tense tells us the time in which the activity happened like present, past or future; aspect is the perception we have of the activities like the duration if it is in progress or if it concluded.</td>
</tr>
</tbody>
</table>

² Please note that the AI took place in L1 (Spanish), but in this section I am providing translations into English for ease of reference.
Similar to the awareness interviews, the scores for the lesson plans (maximum of 6 points) for the control cases did not show evidence of any change from pre to post which only reached 4pts. In contrast, both cases in the experimental set increased the scores of their lesson plans from pre to post by 44%, (from 4 to 6 points) as shown in Table 39, which was also confirmed when we looked at the amount and type of languaging episodes (MREs and PREs) as shown in Table 40.

The type of answers the top scorers provided during the post Awareness Interviews were in line with their lesson plans in which they were able to use more accurate and complete definitions of the concepts of tense and aspect. That is, they were able to consider these in their pedagogical thinking while elaborating their lesson plans as evidenced in the amount and type of languaging episodes (metalinguistic related episodes, MREs and pedagogical related episodes, PREs) as shown in Table 40.

<table>
<thead>
<tr>
<th>Lesson plan</th>
<th>PRE</th>
<th>POST</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jannet Ctrl</td>
<td>(4) 66%</td>
<td>(4) 66%</td>
<td>0</td>
</tr>
<tr>
<td>Roxana Ctrl</td>
<td>(3) 50%</td>
<td>(3) 50%</td>
<td>0</td>
</tr>
<tr>
<td>Belem Exp</td>
<td>(4) 66%</td>
<td>(6) 100%</td>
<td>+44%</td>
</tr>
<tr>
<td>Alexander Exp</td>
<td>(4) 66%</td>
<td>(6) 100%</td>
<td>+44%</td>
</tr>
</tbody>
</table>

Note: Numbers in parenthesis are the points scored in the lesson plans.
cases produced a higher number of languaging episodes compared to the control cases. In both cases participants from the experimental group produced more MREs than PREs with a difference of 20%.

**Table 40: Comparative table of Languaging episodes scores per case**

<table>
<thead>
<tr>
<th>Language episodes</th>
<th>MREs</th>
<th>PREs</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ctrl</strong> Jannet</td>
<td>(2) 40%</td>
<td>(2) 40%</td>
<td>0</td>
</tr>
<tr>
<td>Roxana</td>
<td>(2) 40%</td>
<td>(2) 40%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Exp</strong> Belem</td>
<td>(4) 80%</td>
<td>(5) 100%</td>
<td>+20%</td>
</tr>
<tr>
<td>Alexander</td>
<td>(3) 60%</td>
<td>(4) 80%</td>
<td>+20%</td>
</tr>
</tbody>
</table>

Note: Numbers in parenthesis are episodes generated per dyad.

Both of the activities during the Communicated Thinking sessions (working with the SCOBAs and developing their lesson plans) generated the production of languaging episodes of various types. Table 41 provides representative samples of languaging for illustration purposes.

**Table 41: Comparative table of Languaging episodes during lesson plan session**

<table>
<thead>
<tr>
<th>Language episodes</th>
<th>MREs</th>
<th>PREs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ctrl</strong> Jannet</td>
<td>Ok… the teacher explains the regular and irregular formation of the verbs… that the regular only add ‘ed’ and the irregular change their form…</td>
<td>Students will have to write stories in the past tense and then they can read it to the class and they can practise their pronunciation of the verbs…</td>
</tr>
<tr>
<td>Roxana</td>
<td>… And we also show the structure how to form sentences in past tense with the verbs in past for affirmative sentences using the auxiliary did for negative questions…</td>
<td>Put the students to read stories aloud… so after the stories the teacher will have to explain the grammatical structures and how to form the past tense to the students…</td>
</tr>
<tr>
<td><strong>Exp</strong> Belem</td>
<td>Yes… we have to explain them that aspect is how we see the things occurring and that it can be simple or progressive…</td>
<td>We also are going to include the explanation of aspect in this section… what do you think?… they need to know that tense and aspect are two different things but work together, well I guess that’s it…</td>
</tr>
<tr>
<td>Alexander</td>
<td>…but we have to explain the grammar like the use of the auxiliary ‘did’ which is what they need to use to form interrogative and a negative statement… isn’t it?</td>
<td>…we cannot forget to include aspect… it is very important they see how it makes the difference if a verb finishes or is a continued action… it is about the perspective what they need to understand that aspect is about…</td>
</tr>
</tbody>
</table>

As Table 41 shows, the languaging episodes produced by participants in the experimental group while elaborating the lesson plans represent more elaborated and accurate responses than those from the control group. Through these verbalisation activities
we witnessed how participants were able to deploy their newly acquired knowledge on the
target concepts relying on different semiotic tools which appeared to have helped them to
develop their L2. Our results seem to be consistent with those of Gánem-Gutiérrez (2008);
Gánem-Gutiérrez & Gilmore (2018); Gánem-Gutiérrez & Roehr (2011) as we will now
discuss more in depth.

4.3.2. A case study approach to languaging: Specific mechanisms activated during
interaction

As outlined in the methodology chapter, to better understand verbalisation,
specifically *languaging* and its potential as a developmental tool within STI, I carried out
qualitative (microgenetic) analyses which served to trace back the course of talk between
participants. As Gánem-Gutiérrez (2008) pointed out, microgenetic analyses serve to
investigate how learning unfolds during interaction through collaborative dialogue in
revealing moment-to-moment co-construction of knowledge and language learning (p.121).
Thus, this section specifically focuses on what I called a *Communicating Thinking Event*
(CTE) to include selected languaging episodes from communicated thinking sessions 1 and
2 (working with the SCOBAs and developing a lesson plan respectively).

While working collaboratively, languaging of different types emerged from
participants’ verbalisations while they were *co-constructing their understanding on* the
difference between *events* and *states* and *expressing the view/perception of an event*.
According to Ohta (2001) co-construction is “an explicit form of assistance… co-
construction sometimes results in vertical construction, in which peers collaborate to
produce an utterance, alternately providing words or phrases to the growing utterance”

Participants centred their languaging in the co-construction of their understanding
on *expressing view or perception of an event*. To achieve this goal, they relied on different
strategies which were based on the analyses of their languaging in their CTEs, allowed
them to grasp the target concepts of tense and aspect. Thus, it was possible to identify the
use of an array of learning strategies through the use of semiotic tools such as, for example,
discourse markers, reasoning markers, which contribute in building intersubjectivity, joint attention, regulation, thinking space, play, use of metalanguage, active reception and participation. It seems that relying on these may have contributed in the co-construction of their understanding, also allowing us to trace the origin and trajectory of their learning process. (Gánem-Gutiérrez, 2008; Antón & DiCamilla, 1998; DiCamilla & Anton, 1997; Gánem-Gutiérrez & Roehr, 2011; Ohta, 2001; Swain & Lapkin, 2000).

Thus, microgenesis instances allowed us to signal when participants were co-constructing their understanding on the difference between events and states. In so doing, we were able to trace the genesis of various events in which participants collaboratively were trying to understand the target concepts. EXCERPT 1 B+S MGA is an example of how the microgenesis affordance occurred where it is noticeable how Belem is trying to understand the difference between events and states at the same time as she is consulting and perhaps searching for approval from her peer to confirm she is right in her understanding of the concepts in question; i.e. ‘¿tú qué piensas?’ (what do you think?), or ‘¿ves?’ (do you see?). Belem first tries to explain why ‘events are dynamic’ as opposed to ‘states that don’t change’; by doing so, she reflects on the fact that events are activities which imply certain action or dynamicity. She further alludes to how, thanks to the SCOBAs, it is easier for her to understand the difference between these concepts, which suggests that the instruments were effective for helping the participants better understand the concepts in question. Finally, she incorporates the notion of events as being durative by providing examples with verbs that imply a certain type of dynamicity.

EXCERPT 1 B+S MGA

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>B</td>
<td>52</td>
<td>OK (.) entonces, si son eventos son actividades por eso supongo que dice que los eventos son dinámicos (.) y los estados no cambian (.) tú qué piensas? (reading quietly)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53</td>
<td>con las imágenes es más claro entenderlo (.) ves? (reading quietly) dice que los eventos son durativos como por ejemplo leer un libro como cantar una canción supongo no?</td>
</tr>
</tbody>
</table>

Note: T= turn; P=participant; and L=line

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>A</td>
<td>52</td>
<td>OK (.) so if they are events they are activities that’s why I think that it says that events are dynamic (.) and states don’t change (.) what do you think? (reading quietly)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53</td>
<td>with the images it’s easier to understand (.) you see? (reading quietly) it says that events are durative like for example to read a book such as to sing a song I assume no?</td>
</tr>
</tbody>
</table>

167
It has been argued (see for example Gánem-Gutiérrez & Roehr, 2011; Gánem-Gutiérrez, 2008) that *discourse markers* (e.g., ok, all right, so, then, ahh! ¡bueno!) appear to be a recurrent semiotic tool while interlocutors are trying to understand something which is challenging for them, in this case, the contrast between events and states. One of these markers, ‘OK’, can play a dual role; on the one hand it can be a tool that helps to co-construct *intersubjectivity*, that is, to enable interlocutors to build up a shared perspective of a task or help ‘two voices coming into contact and interanimating one another’ (Wertsch, 1991; DiCamilla & Anton, 1997, p. 623). On the other hand, ‘OK’ can be a particle that brackets changes in understanding (microgenesis), see (Gánem-Gutiérrez & Roehr, 2011).

**EXCERPT 2 B+S MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>1</td>
<td>OK (.) (reading quietly) vamos a ver (.) ¿tú le entiendes de qué es todo esto? (.)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>2</td>
<td>vamos a ver (reading quietly)</td>
</tr>
</tbody>
</table>

**EXCERPT 3 B+S MGA**

Another example of how discourse markers within learners’ languaging appear to signal changes in understanding, is presented in **EXCERPT 3 B+S MGA**, line 46, where the marker ‘ahh’ is signalling the participant is getting the point in question. This is immediately confirmed by her saying ‘I’m seeing it like you say’, ‘it’s clear in the picture’. These changes as expressed in their L1 ‘ya le estoy agarrando la onda’ (‘I’m starting to get it’), referring to the fact that they have noticed what the specific features that differentiate events from states are, in this case alluding to the difference between these two concepts discussed in the previous turns.

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>45</td>
<td>No (.) no la había visto así (.) (reading quietly) si (.) si le estoy agarrando la onda (…) ahh (.) ya lo estoy viendo como dices (…) (reading quietly) está claro en la imagen (…) velo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>45</td>
<td>No (.) I hadn’t seen it like this (.) yes (.) <em>I understand</em> (…) ahh (.) I’m seeing it like you say (…) (reading quietly) it’s clear in the picture (…) look at it</td>
</tr>
</tbody>
</table>

*Intersubjectivity* has also been found to be crucial in helping learners orienting themselves towards a common goal, that is ‘creating an atmosphere of cooperation and
understanding that allows them to implement the task…’ (Gánem-Gutiérrez, 2004, p.24). Discourse markers (and phrases) which helped with creating an environment of confidence and mutual support among learners, thus supporting intersubjectivity, were found among the communicative thinking events. Some of these were ‘let’s see’, ‘do you understand all this?’ , ‘ok, let’s go slowly so we can read one by one’ (see EXCERPT 4 B+S MGA), which in sum contributed to create an atmosphere of inter-reliance in each other allowing the participants to further their understanding of the target concepts.

EXCERPT 4 B+S MGA

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>P</td>
<td>L</td>
<td>Transcription</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1</td>
<td>OK (.) (reading quietly) vamos a ver (.) ¿tú le entiendes de qué es todo esto? (.)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>2</td>
<td>vamos a ver (reading quietly)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>3</td>
<td>Ok (.) vamos a ir despacito para que podamos leer una por una (reading quietly)</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>P</td>
<td>L</td>
<td>Gloss</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>1</td>
<td>OK (.) (reading quietly) let’s see (.) ¿do you understand what is all this about? (.)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>2</td>
<td>let’s see (reading quietly)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>3</td>
<td>Ok (.) let’s go slowly so we can read one by one (reading quietly)</td>
<td></td>
</tr>
</tbody>
</table>

The previous excerpt shows how intersubjectivity was co-constructed and this might have played an important role in helping learners develop empathy and reciprocity while trying to understand and grasp the target concepts. For DiCamilla & Antón (1997) intersubjectivity has a special importance among semiotic tools as it is considered essential for successful collaborative activity as a strategic component for the co-construction of knowledge, regulation and scaffolding.

*Play* is another feature which can function as a mediational tool to build and/or strengthen intersubjectivity (Gánem-Gutiérrez & Gilmore, 2018). Swain (2013) argues that Vygotsky saw the two (emotions and cognition) as being inextricably interconnected; in other words, emotions are an integral part of cognition, interdependent and inseparable from it. My data, as evidenced in the focal CTEs, also shows instances of ‘play/joking’ language. I found instances of play that reflected a strong level of intersubjectivity and allowed participants to continue working on the tasks as well as enhancing their understanding of the concept. That is, through play participants (Belem and Shirley) were able to discern and clarify the concept of duration when discussing states as shown in
EXCERPT 4B B+S MGA in which, while trying to explain the idea of ‘states’, Belem jokes with Shirley and this seems to be effective for Belem to get the gist.

**EXCERPT 4b B+S MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>S</td>
<td>56</td>
<td>Sí (reading quietly) eso es lo que aquí dice (…) que los eventos pueden durar (…) y los estados pueden ser permanentes como por ejemplo ser europeo (.) que es una nacionalidad (.) eso no lo cambiamos tan fácilmente y es algo que lo tenemos toda la vida (…) podemos tener otras nacionalidades (.) pero la que sea la nacionalidad es para toda la vida (.) una (.) dos (.) tres nacionalidades pero son para toda la vida (…) ¿como por ejemplo ser mexicano (…) es así no?</td>
</tr>
<tr>
<td>17</td>
<td>B</td>
<td>61</td>
<td>Bueno (…) si es un estado entonces es el ‘estado’ en el que uno se encuentra (.) ¿no? Puedo decir (.) ¿mi estado es estar enamorada?</td>
</tr>
<tr>
<td>18</td>
<td>S</td>
<td>63</td>
<td>Jajajajaja si (.) yo creo que si (…) jajajajaja</td>
</tr>
<tr>
<td>19</td>
<td>B</td>
<td>64</td>
<td>Ahorita no tengo novio (.) ehh? Jajajajaja sólo lo usé como ejemplo jajajajaja</td>
</tr>
<tr>
<td>20</td>
<td>S</td>
<td>65</td>
<td>Yo tampoco jajajajaja</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>S</td>
<td>56</td>
<td>Yes (reading quietly) that is what it says here (…) that events can last (…) and states can be permanent like for example ’to be European’ (.) that is a nationality (.) that we do not change so easily and is something that we keep all our life (…) we can have other nationalities (.) but whatever the nationality is it is forever (.) one (.) two (.) three nationalities but they are forever (…) like for example be Mexican (…) isn’t it?</td>
</tr>
<tr>
<td>17</td>
<td>B</td>
<td>61</td>
<td>Well (…) if it is a state then it is ’the state’ in which we are (.) isn’t it? Can I say (.) my state is to be in love?</td>
</tr>
<tr>
<td>18</td>
<td>S</td>
<td>63</td>
<td>Hahahahaha yes (.) I think so (…) hahahaha</td>
</tr>
<tr>
<td>19</td>
<td>B</td>
<td>64</td>
<td>Right now I don’t have a boyfrien (.) ehh? Hahahahaha I only used it as an example hahahaha</td>
</tr>
<tr>
<td>20</td>
<td>S</td>
<td>65</td>
<td>Me neither hahahahaha</td>
</tr>
</tbody>
</table>

Another linguistic feature among the semiotic tools used to co-construct knowledge which is associated to intersubjectivity is that of *joint attention*. As previously discussed, as *intersubjectivity* relies on empathy and reciprocity between learners collaborating together during verbalisation, *joint attention* helps to achieve intersubjectivity by focusing and orienting attention towards a common aim. Mechanisms that enable the achievement of *joint attention* include the use of language to point (deictics), this can sometimes be accompanied by pointing gestures. As Gánem-Gutiérrez & Gilmore (2018) highlight, ‘´deictic´ (pointing) gestures seem to [help] interlocutors enhance comprehension and scaffold the co-construction of meaning by reducing ambiguity or referencing objects in the environment facilitating communication and leading to intersubjectivity and, ultimately, self-regulation’ (p. 24). My data echoes such findings as evidenced in EXCERPT 5 B+S MGA where Belem uses language to point towards crucial information thus guiding her
partner, Shirley, to the definitions presented in the SCOBAs. *Joint attention* could eventually, and hopefully, lead to a better understanding of the SCOBAs’ content.

EXCERPT 5 B+S MGA

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>B</td>
<td>27</td>
<td>Mira (...) (reading quietly) (...) <em>aquí</em> dice (...) <em>aquí</em> dice (...) <em>que las situaciones pueden ser eventos y estados</em> (...) ¿tú lo sabías? Yo no (...) primera vez que lo veo así (...) nunca se me había ocurrido de esa forma (...) yo pensaba que los verbos nadamás se referían a acciones y ya (...) nunca se me ocurrió que los verbos servían para señalar eventos ó estados (...) uno no piensa en esas cosas (...) cuando te explican las reglas gramaticales no vemos eso (...) yo sólo recuerdo haber aprendido las estructuras, como formar los tiempos gramaticales</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>B</td>
<td>27</td>
<td>Look (...) (reading quietly) (...) <em>here</em> it says (...) <em>here</em> it says (...) <em>that situations can be events and states</em> (...) <em>did you know that?</em> I didn’t (...) first time I see it like that (...) I have never thought about it in that way (...) I had only thought that verbs referred to actions and that was it (...) I never would have thought that verbs served the function to distinguish between events and states (...) you don’t think of that (...) when we are taught the grammatical rules we don’t see that (...) I only remember having learnt the structures, how to form the grammatical tenses.</td>
</tr>
</tbody>
</table>

As well as using language (and possibly gesture although this type of data is not available for my study) for achieving *joint attention* Belem is using *paraphrasing* as a mediational mechanism to help clarify the content of the SCOBAs and to invite or encourage her peer to *self-evaluate*. In other words, through languaging, Belem is activating awareness regarding the difference between events and states. In one single turn (9) of languaging (lines 27-32) Belem’s speech demonstrates the power of languaging as she is combining different semiotic tools and mediational mechanisms (*joint attention, self-evaluation, paraphrasing*) in order to make the concepts understandable for both herself and her peer.

Another example of how learners can achieve *joint attention* can be illustrated through the data from Alexander and Oscar’s languaging and is presented in EXCERPT 5 A+O MGA. In this example, they specifically allude to elements in the SCOBAs where Alexander urges Oscar to pay attention, i.e. ‘mira’ (look), ‘dice’ (it says), ‘mira el cuadro’ (look at the framework) so that they can better understand the target concepts.
<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>O</td>
<td>64</td>
<td>(reading quietly) real (...) sin limites (...) entonces ¿las situaciones pueden verse así? (...) ¿no?</td>
</tr>
<tr>
<td>35</td>
<td>A</td>
<td>65</td>
<td>si (...) mira a los muñequitos (...) aspecto no progresivo dice que es una situación sin límites (...) habitual (...) permanente (...) supongo que es algo que no tiene fin (...) es algo que pasa y no se sabe cuando termina (...) bueno eso creo (...)</td>
</tr>
<tr>
<td>36</td>
<td>O</td>
<td>68</td>
<td>Aspecto progresivo dice ‘mi hermana está trabajando actualmente para la universidad (reading quietly) (...) dice que le imponemos limites (...) y mira el cuadro (.) es como que se ‘encapsula’ en un determinado tiempo (.) isn’t it?</td>
</tr>
<tr>
<td>37</td>
<td>A</td>
<td>71</td>
<td>Sí (...) mira el de las cabecitas (.) ahí dice que cuando hacemos ‘zoom’ le ponemos limites (reading quietly)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>O</td>
<td>64</td>
<td>(reading quietly) real (...) without limits (...) so then situations can be seen like that (...) isn’t it?</td>
</tr>
<tr>
<td>35</td>
<td>A</td>
<td>65</td>
<td>Yes (...) look at the figures (...) non progressive aspect says it says it’s a situation without limits (...) habitual (...) permanent (...) I suppose it’s something that does not have an ending point (...) it’s something that happens and it does not say when it ends (...) well that is what I think so (...)</td>
</tr>
<tr>
<td>36</td>
<td>O</td>
<td>68</td>
<td>Progressive aspect says ‘my sister is currently working for the university’ (reading quietly) (...) it says ‘we impose’ limits (...) and look at the framework (.) it looks as if it was encapsulated in a given point in time (.) isn’t it?</td>
</tr>
<tr>
<td>37</td>
<td>A</td>
<td>71</td>
<td>Yes (...) look at the heads, it says there that when we make ‘zoom’ we impose limits(...) (reading quietly)</td>
</tr>
</tbody>
</table>

Reasoning markers were another type of semiotic tools found among the languaging produced by the top scorers. Taking as a reference the taxonomy of Centeno-Cortés & Jiménez Jiménez (2004) in which they identified three different stages on participants’ reasoning process: initiation, progression and conclusion (cf. Section 3.3.5.3.1.), I analysed this aspect of the top scorers’ languaging. Centeno-Cortés & Jiménez Jiménez investigated the expressions learners of L1 Spanish verbalized while working on the resolution of problem-solving tasks, i.e. ¡Bueno! (‘Well!’), vamos a ver (‘let’s see’), entonces (‘then/so’). Following their framework, I was able to trace which type of reasoning markers the top scorers relied on while initiating, progressing or concluding their process of thinking regarding the target forms. These semiotic tools were found in the CTEs particularly to indicate ‘initiation’ and ‘progress’. For instance, the use of the marker ‘ok’ was found in one of the previous excerpts (EXCERPT 2 B+S MGA) signalling the initiation stage. Moreover, EXCERPT 6 B+S MGA shows Belem using the marker ‘entonces’ (so/then) as signalling progression in trying to understand the difference between tense and aspect as she and her peer are looking at the SCOBAs. By doing so, the marker ‘entonces’ serves to allow for the continuation of the explanation Belem is providing to her mate. Even when top scorers were not asked deliberately to rely on
reasoning, they did so as they were encouraged to verbalise, which allowed them to put into practice effective reasoning while languaging. However, it is important to mention that using language for reasoning purposes can be taught through collaborative activity when learners face cognitive challenges as the work by Mercer, Wegerif, & Dawes (1999) demonstrates.

EXCERPT 6 B+S MGA

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>B</td>
<td>20</td>
<td>Entonces (...) (reading quietly) entonces (...) el tiempo y el aspecto no son la misma cosa? (reading quietly) (...) al menos eso es lo que estoy entendiendo de las diapositivas (...) yo veo que son dos cosas (reading quietly) (...) pero van juntas (...) ¿tú no lo ves así?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>B</td>
<td>20</td>
<td>So (...) (reading quietly) so (...) aren’t time and aspect the same thing? (reading quietly) (...) at least that is what I am understanding from the slides (...) I see that it’s two things (reading quietly) (...) but they go together (...) don’t you see it like that?</td>
</tr>
</tbody>
</table>

Given the nature of the pedagogical intervention, i.e., STI, and its reliance on explicit metalinguistic knowledge, metalanguage was unsurprisingly a key mediatational mechanism through many languaging episodes identified in the CTEs. This can be seen in several of the excerpts which I have been referring to in this section; for instance in excerpts 1, 4 and 5 above Shirley and Belem use terms such as events, states, durative, etc. since those concepts appear on the SCOBAs and are becoming part of their vocabulary. This is particularly welcome because the participants are teacher trainees and technical language can become an important foundation for enhancing their language awareness in general and their metalinguistic awareness, in particular (see Andrews, 2007; Roberts, 2011, for example). The languaging activity observed between Shirley and Belem shows how these participants used metalanguage to co-construct a common space where language of their future occupation as L2 teachers is allowing them to gain increasing knowledge of a challenging concept. An ultimate goal of supporting metalinguistic awareness for L2 teachers is that their understanding of language would eventually transfer into better pedagogical practice. This is not to suggest that technical language is necessarily used or essential in the L2 classroom, but by having more accurate and deeper knowledge themselves teachers might be able to provide more accessible explanations or activities to
their learners to hopefully become better users of the L2. In this context, I would like to argue that excerpts such as EXCERPT 10 below represent a positive step forward.

**EXCERPT 10 B+S MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>B</td>
<td>31</td>
<td>(...) cuando te explican las reglas gramaticales no vemos eso (...) yo sólo recuerdo haber aprendido las estructuras (...) como formar los tiempos gramaticales (...)</td>
</tr>
</tbody>
</table>

This excerpt shows that with our case study participants at least there is some evidence that the teachers-to-be have begun to realize differences between the type of pedagogical explanations they had been exposed to before and what approaches such as the ones derived from cognitive linguistics (as was the case in the SCOBAs designed for this study) have to offer. Thus, we see Belem externalizing an awareness of ‘grammatical rules’ as simply facilitating ‘learning the structures’ to conjugate verbs. For further discussion on similar issues contrasting the use of discrete pedagogical grammar rules versus the type of approach adopted in this study see Fernández (2011) Gánem-Gutiérrez (2016); and Niemeier & Reif (2008) among others.

A further characteristic evident throughout the languaging of participants was what Gánem-Gutiérrez & Gilmore (2018, p. 31) refer to as thinking space, those moments during dialogic activity where participants either take and/or give time to themselves or others to reflect on the task at hand. These moments, shown in the transcripts as pauses (...), seem to be important and tend to appear prior to paraphrases and elaborations based on what the participants are reading or looking at on the slides.

Finally, I would like to conclude this exploration of the top scorers’ languaging by looking at their regulatory patterns and sub-stages: object regulation, other-regulation and self-regulation (Lantolf & Thorne, 2007). Object-regulation was evident when participants were dependent on the SCOBAs for understanding and focusing their attention to gain knowledge. As participants were working together with their peers to accomplish the tasks,
they sometimes had to rely on *other-regulation* as well to help each other understand better. Finally, the fact that learners (at least the ones who appeared to have benefited from pedagogical intervention) were able to show a better understanding of the target concepts during post-test stages suggests that *self-regulation* (Lantolf & Thorne, 2007, pp. 202-207) was achieved.

EXCERPT 7 B+S MGA below illustrates *object-regulation* and *other-regulation* patterns. The excerpt shows how, by relying on the SCOBAs and, more specifically in this instance, on the diagrams and explanations on the slides, Shirley and Belem were able to understand some differences between events and states. Crucially, they also depended on each other and helped each other throughout this process. In turn 12, the particle ‘ahh’ suggests a change in understanding (see use of *discourse markers* above); importantly, lines 45 and 46 suggest that Belem had previously helped Shirley (‘I hadn’t seen it that way’, ‘as you say, I can see that now’). They are both still reliant on both the diagrams and language (e.g., paraphrasing, re-reading) and on each other as regulatory mechanisms and aids supporting their reasoning and understanding. There are further and very explicit allusions to the value of the SCOBAs within this process, e.g., line 54 in turn 15 when Belem refers to the fact that ‘the images make it clearer’. This turn also suggests that Belem might be able to start transferring knowledge by expanding on the examples of verbs illustrating events (‘for instance reading a book’, ‘sing a song’); this in turn, could be argued to be an instance of microgenesis, particularly because we know her post-tests results show improvement over the pre-test.

**EXCERPT 7 B+S MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>S</td>
<td>45</td>
<td>No (.) no lo había visto así (.) (reading quietly) si (.) si le estoy agarrando la onda (…)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>46</td>
<td>Ahh (.) ya lo estoy viendo como dices (…) (reading quietly) está claro en la imagen (…) velo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47</td>
<td>(…) lo dice claramente (…) cuando no hay cambio en la acción ó evento como que se cierra el cuadrado del diagrama (.) no lo ves así? Supongo que eso significa que el evento es estático oséa que no cambió (…) bueno... eso creo... bueno, así lo veo.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
<td>OK (…) entonces (.) si son eventos son actividades por eso supongo que dice que los eventos son dinámicos (…) y los estados no cambian (…) ¿tú qué piensas? (reading quietly)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>Sí (…) pudiera ser así (…) ¿por qué no? Yo creo que si (…) (reading quietly)</td>
</tr>
<tr>
<td>13</td>
<td>B</td>
<td>51</td>
<td><em>Mira (.) según éste (.) los verbos nos indican eventos y estados</em> (reading quietly)</td>
</tr>
<tr>
<td>14</td>
<td>S</td>
<td>52</td>
<td>OK (…) entonces (.) si son eventos son actividades por eso supongo que dice que los eventos son durativos (.) como por ejemplo leer un libro, como cantar una canción supongo, no?</td>
</tr>
</tbody>
</table>
Although, as I have remarked above, it is not quite possible to provide unequivocal evidence of self-regulation, there are some signs that the potential for achieving that is present in the data. This appears to be the case for Shirley, at least to some degree, when we look at EXCERPTS 8 B+S MGA and 9 B+S MGA. Shirley and Belem are focusing on tense and aspect and throughout these turns, Belem is simultaneously gaining understanding herself through the SCOBAs and providing strong other-regulation to Shirley (lines 73-76). In line 77, Shirley appears to respond to Belem’s help by realizing that grammar is used to convey one’s perspective on an event: “with the form of the verb? you mean if it is ing or simple past or something like that?” Then, particles “aha (…) aha” in line 84 suggest she might be experiencing understanding, but she continues reading quietly.

EXCERPT 8 B+S MGA

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>S</td>
<td>71</td>
<td>Los tiempos (…) (reading quietly) (…) ok ya sé esto (…) pasado simple, progresivo, perfecto (…) mmhhhh (reading quietly)</td>
</tr>
<tr>
<td>27</td>
<td>B</td>
<td>73</td>
<td>(reading quietly) (…) ahh ok (…) ok (…) mira (…) ésto es de como vemos la diferencia entre el tiempo y el aspecto (…) aspecto es más (…) aquí dice que aspecto tiene que ver más con la visión y la perspectiva que tenemos de los verbos (…) (reading quietly) pero la perspectiva la indicamos con la forma del verbo (…)</td>
</tr>
<tr>
<td>28</td>
<td>S</td>
<td>77</td>
<td>¿Con la forma del verbo? Oséa ¿si es ing o pasado simple o así?</td>
</tr>
<tr>
<td>29</td>
<td>B</td>
<td>78</td>
<td>Bueno (…) eso es lo que entiendo (…) éso es lo que dice aquí (…) mira (…) aquí lo dice (…) yo creo que a eso se reﬁere (…) (reading quietly)</td>
</tr>
<tr>
<td>30</td>
<td>S</td>
<td>80</td>
<td>Sí (…) todas las diapositivas dicen eso (…) si (…) tiempo es el presente (…) pasado (…) futuro</td>
</tr>
<tr>
<td>31</td>
<td>B</td>
<td>81</td>
<td>Sí (…) el tiempo, es el tiempo cuando pasaron las cosas (…) y el aspecto nos da la perspectiva (…) oséa que podemos tener presente ó pasado con progresivo que se reﬁere a que las cosas estuvieron sucediendo –en acción en el pasado (…)</td>
</tr>
<tr>
<td>32</td>
<td>S</td>
<td>84</td>
<td>Ajá (…) ajá (…) (reading quietly)</td>
</tr>
</tbody>
</table>
### Tense and Aspect

Some turns later, further characteristics of what Gánem-Gutiérrez (2003) and others have argued to be signs of microgenesis (see also Lantolf & Thorne, 2006, p. 52) are in evidence. Particle ‘aha’ is uttered again, followed by an overt expression of understanding regarding tense and aspect.

**EXCERPT 9 B+S MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>S</td>
<td>112</td>
<td>aja (...) esto está claro (...) lo de los tiempos (...) como los usamos (...) eso lo entiendo bien (...) y lo del aspecto igual ya está un poco más claro (...) ni idea de qué era eso! (reading quietly)</td>
</tr>
</tbody>
</table>

**EXCERPT 9 B+S MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>S</td>
<td>112</td>
<td>aha (...) that’s clear (...) tenses (...) how we use them (...) I understand that well (...) and aspect is also clearer (...) I didn’t have a clue as to what that was! (reading quietly)</td>
</tr>
</tbody>
</table>

Similar patterns of such a regulatory journey from *object* and *other-regulation* to at least the path to *self-regulation* were observed in the languaging of other participants who were among the highest scorers. **EXCERPT 9 A+O** shows that by simply using synonyms, Alexander (the second highest scorer) is able to help his colleague Oscar understand key terms appearing on the SCOBAs.

**EXCERPT 9 A+O MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>O</td>
<td>34</td>
<td>mh es que éso de durativo y transitorio es lo que veo como que me confunde (.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>A</td>
<td>35</td>
<td>Pero si esta claro (...) transitorio algo que es temporal (...) permanente algo que es para siempre (...)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>O</td>
<td>37</td>
<td>Bueno (...) si es así como lo explicas pues como que ya va tomando sentido (...)</td>
</tr>
</tbody>
</table>
In lines 41-42, Oscar asks Alexander for further help since the former is experiencing difficulties with other concepts on the slides. In this instance, Alexander is not as confident and appears to be using specific mechanisms, e.g., re-reading quietly and paraphrasing, to try and understand himself (turn 21). What is of particular interest here is that these turns show the interdependence brought about by collaboration and peer-peer dialogue which has been considered such an important developmental mechanism within Sociocultural theory (Kowal & Swain, 1997; Swain & Lapkin, 2001), particularly so when learners are engaged in problem-solving as is the case in the instance below.

**EXCERPT 9b A+O MGA**

<table>
<thead>
<tr>
<th>T</th>
<th>P</th>
<th>L</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>O</td>
<td>41</td>
<td>(reading quietly) Hey (…) have you seen those markers of tense of states existential? What is that? I have never seen it like that (…) it is the past these (…) isn’t it?</td>
</tr>
<tr>
<td>21</td>
<td>A</td>
<td>42</td>
<td>(reading quietly) (…) it seems that it is explaining how the past tense is formed (…) like if the past tenses were unreal (…) like if they did not exist anymore (…) is kind of obvious isn’t it?</td>
</tr>
<tr>
<td>22</td>
<td>O</td>
<td>43</td>
<td>Yes (…) it’s true (…) we speak and we do not realize that it is about something that does not exist anymore (…) like it says it here (…)</td>
</tr>
</tbody>
</table>

The case of Alexander and Oscar is also interesting because it involved a rather asymmetrical partnership where Alexander was constantly stronger than Oscar, but the continued willingness of the former to assist and help his partner also paid dividends to himself. Alexander seemed to have been particularly sensitive and aware of his peer’s needs. He constantly tried to interpret meaning and make connections across the target concepts as well as his own experience so his partner could understand (see Lantolf &
Poehner, 2014, p. 161). Due to space constraints I cannot elaborate on further examples, but such instances are available in the protocol reproduced in Appendix 15.

In sum, it could be said that the potential of verbalisation or *linguaging* as a developmental mechanism in interaction can be observed in dialogic activity. The data presented in this section attests, and provides further evidence, of specific mediational tools and mechanisms which have been identified in the Sociocultural theory tradition as key, e.g., *discourse markers, reasoning markers, play,* and *metalanguage.* It has been argued that the use of such mechanisms enables L2 learners to work towards *joint attention* and *intersubjectivity* which, in turn, will hopefully lead to (self-) *regulation* and the ultimate goal of pedagogy, *internalisation* of knowledge. In this particular study, this referred to explicit knowledge regarding the concepts of tense and aspect. The specific role of such knowledge for L2 use as such is currently the topic of important debates in the field of second language acquisition (see, for example, Roehr-Brackin, 2018). However, I would like to argue here that whatever the potential role of explicit knowledge about language might be in terms of actual L2 performance, for participants such as the ones that took part in this study (teacher trainees), such knowledge is essential.

I would like to conclude this chapter by highlighting some of the general characteristics observed in the languaging activity of my top scorer participants and which have been previously hailed as important in the literature (Lantolf, 2007; Lantolf, 2011; van Compernolle, 2015; van Compernolle & Williams, 2013). More specifically, two essential traits of potentially successful *linguaging* in interaction are what Lantolf (2007; 2011) refers to as ‘active reception’ and participation and to achieve that participants need to:

a) Show commitment and orientation to the task in hand;
b) Express intentionality; this can be achieved by explaining reasons for actions;
c) Show general willingness, e.g. making efforts to elaborate on comments;
d) Show willingness (and ability) to engage in metacognitive activity, normally achievable through reflection on task and action;
e) Make efforts to assign relevance and significance to things and events.
Both quantitatively and qualitatively, the results drawn from this study appear to suggest that STI with all its components (SCOBAs, and verbalisation—in both forms, i.e. communicated thinking and dialogic thinking) contributed to enhance learners’ (EFL teacher trainees) knowledge of the target forms and concept: tense and aspect. In the final chapter of this thesis, I will reflect on the pedagogical implications of my study and provide an overall conclusion. Some important limitations will be also outlined.
Chapter 5. Conclusions

Introduction

This chapter is organized on the basis of the general findings and discussion drawn from the three research questions. I will first proceed to delineate in Section 5.1. the Pedagogical Implications following the thread of the three RQs. Section 5.2. will lay out the limitations of the study and possible recommendations for further research.

5.1. Summary of Findings and Pedagogical Implications

5.1.1. The potential effectiveness of STI to enhance metalinguistic knowledge

A key theoretical assumption underpinning Sociocultural Theory is that knowledge is not exclusively created in the mind, but is the result of human social interaction with the environment (Vygotsky, 1986). Under this premise, Gal’perin’s pedagogical model, STI, was developed to mediate the internalization of material actions as a pathway towards cognitive development (Arievitch & Haenen, 2005).

Aiming to foster cognitive development, i.e. metalinguistic knowledge, language use in context and pedagogical thinking regarding the concepts of tense and aspect, I followed a methodological approach which implemented the complete cycle of STI, something which to my knowledge had not been conducted in published L2 research to date. Thus, the ultimate goal was to support participants’ cognitive development through the internalisation of conceptual meanings (and its connectedness to developing forms) which as Negueruela-Azarola (2003) suggests lead to a transformative learning process (p. 457). In achieving this goal, participants worked on the three phases that STI suggests (cf. Section 2.3.3.) 1) materialisation through the SCOBAs, 2) verbalisation (individually and collaboratively); and 3) internalisation which from the results obtained seems to have had a positive effect on participants.

The results showed that STI contributed to the development of metalinguistic knowledge and, hopefully will eventually help participants fully internalise this knowledge.
for accurate use of the target forms. Having received instruction on the basis of ‘minimal-conceptual-units’, materialization and verbalisation contributed substantially to participants’ performance regarding the target concepts. As the principles of SCT underline, mediation enabled interaction and explanation and in due course internal conceptual understanding translated into a transformative event leading to internalization (Negueruela-Azarola & García, 2016, p. 264).

These results therefore suggest that STI could be implemented as an effective tool to teach metalinguistic knowledge which can be particularly important in teacher education. Mediation carried out through materialization and verbalisation phases seems to have provided participants with different degrees of support for fostering language learning at a metalinguistic level.

5.1.2. The potential effectiveness of STI to enhance pedagogical practice

Pedagogical thinking was definitely one feature among participants that was influenced positively by intervention with STI. This was certainly evident among participants’ pedagogical performance measured through their lesson plans activity. Given that the participants will be future language teachers, testing the effectiveness of STI to explore how they would transfer the newly acquired concepts into their pedagogical thinking through the lesson plans was particularly relevant. In so doing, participants had ample opportunity to interact with their peers putting into practice the principles led by mediation through the materialisation of the concepts and verbalisation. With this evidence, we witnessed how STI can serve to tackle crucial aspects in the teacher training process for instance, to train participants to understand and use key grammatical knowledge, at the same time as they practise applying that knowledge to their pedagogical thinking. These results are particularly relevant because pedagogical knowledge/thinking was only expected to happen incidentally; this renders STI as a promising mechanism to help learners transfer this type of knowledge to a pedagogical plane.

Another key point to bear in mind, is the fact that, the most pervasive concepts, are found in language, i.e. lexical, figurative -metaphor, metonymy, grammatical meanings,
such as tense, aspect, mood, voice and anaphora (Lantolf, 2011, p.32), and STI has seemed to prove effective in teaching specifically. Scientific knowledge (concepts) are appropriated through “the intentional introduction of signs… designed and introduced by an external agent” such as a teacher and these are crucial for potential language teachers to master (ibid). Undoubtedly, STI as a pedagogical approach allowed us to evaluate the effectiveness of teaching grammatical concepts on the basis of mediation through materialization, (SCOBAs, i.e. imagery, diagrams) and verbalisation that enabled participants to grasp abstract and complex concepts. We evidenced the importance of bringing these mediation tools into pedagogical practice. Traditional instruction needs to explore novel pedagogical approaches to move beyond the conventional in search of alternative effective ways of teaching, as we aimed. As Gánem-Gutiérrez (2016) suggested, STI/CBI allow us to a non-linear approach to explicit L2 input and thus move away from presenting discrete pedagogical grammar rules in a sequential way which assumes that learning will take place in a relatively linear, cumulative manner (e.g. the preterite presented before the imperfect, followed by contrasts between the two forms).

However, it has also been acknowledged in this thesis that promising as STI appears to be (at least as implemented in studies to date), there continues to be a need to further explore -both methodologically and practically- how we can design, use and implement SCOBAs and verbalisation to foster the mapping of form and meaning for communicative purposes. Two specific suggestions are: (1) to create SCOBAs which target the explicit understanding of grammar at a conceptual level, and which is what most scholars have done to date, and to complement these with SCOBAs which are specifically used to mediate the transfer of conceptual understanding to accuracy in form. This was pioneered by Negueruela-Azarola (2003) to some extent, but further work needs to be done; (2) to use SCOBAs of the type developed for this study to help L2 learners and L2 teacher trainees grasp the relevant concepts and help them see form-meaning relationships at an explicit level, but then make use of the kind of practice which has been implemented through different pedagogical models see (DeKeyser, 2007b; Richards, 2002) in order to achieve the kind of automatization necessary to succeed in communication, particularly during conversation when L2 users ultimately need to convey their meaning accurately and in real time to succeed. These considerations inevitably require experimental work in order for
scholars and educators to ascertain whether or not use of SCOBAs within an STI programme help to accelerate the process, which is clearly a key goal for instruction in the L2 classroom.

Our study represents an example of how we can make changes in the language classroom and, importantly, of how we can implement the full STI cycle. This allowed us to gain further evidence of its potentials in terms of explicit, metalinguistic knowledge development. Pedagogical practice can be taken to the next level, the level in which we do not necessarily have to follow sequential pre-established ways of teaching (at least not exclusively), but where teachers can explore and innovate ideally pushing creativity to develop approaches that ultimately lead to language use in real-time.

5.1.3. STI and verbalisation: Microgenesis affordances

Microgenesis affordances resulting from the verbalisation phase were perhaps the most insightful data gathered through the study as they revealed in detail the ´moment-to-moment- co-construction´ of knowledge among participants. The verbalisation phase which entailed collaborative work, seemed to have been very important in activating the most effective use of semiotic tools. This seems to have allowed participants to gain a deeper level of understanding by externalising their thoughts, exploring and discussing the target concepts while internalising them. It all seemed that while being able to complete the whole Gal’perian cycle (materialization, verbalisation, and internalisation) participants worked with their peers promoting the semantic understanding of the abstract concepts as evidenced in the level of collaboration they achieved and their results during the post and delayed tests.

Languaging as a developmental mechanism in interaction was a very powerful mediation tool as it allowed participants to deploy their understanding through the diverse semiotic tools they relied on. Relying upon discourse markers, reasoning markers, play and metalanguage paved the way to deploying mechanisms enabling joint attention and intersubjectivity allowing participants to attain self and other regulation and ultimately
internalization of the target concepts of tense and aspect. It could be said that what Lantolf (2011; 2007) alludes to as ‘active reception’ which implies in general terms, awareness, commitment, empathy and willingness to learn were activated and reflected in the top scorers’ achievements and the amount and type of languaging they engaged in. These elements were particularly evident throughout the microgenesis affordances found. The microgenetic analyses also confirmed the effectiveness of STI as a promising pedagogical model when implemented in full. That is, in order to gain maximum benefit from STI, the whole pedagogical cycle should be implemented; this observation is especially pertinent because previous work in this area has been primarily concerned with either the use of SCOBAs and/or verbalisation, but not necessarily both as envisaged by Gal’perin (see cf. Section 2.3 for details).

5.2. Limitations of the study and recommendations for further research

The overall goals of the study were achieved. Nonetheless, this study inevitably has various limitations. As mentioned above, two important contributions of my project were that (a) I was able to compare STI with instruction as it is typically implemented in the context of my study, i.e., traditional instruction at the University of Quintana Roo; and (b) unlike previous STI/CBI research, I implemented the full STI cycle. The latter aspect had implications such as some participants dropping out, which resulted in uneven sets of data. Somewhat linked to this and notwithstanding the fact that the number of participants in this study was larger than in previous, similar, studies, an even larger pool would have strengthened the design. Having drawn the participants from three different levels/semesters at some point resulted in very small samples for statistical analyses which did not allow to further inferences. However, with the number of participants in the study it was possible to identify that the ones who most benefited from STI/CBI intervention were the most advanced ones, i.e. 9th semester. It would, therefore, be worth replicating the study with similarly advanced levels. Unfortunately, time and resource intensive projects such as this lead to certain constraints. There is no doubt that, conducting further comparisons (e.g. including whole cohorts at each level) as well as implementing STI during longer periods (e.g., a full academic year) may provide more insights and evidence towards the potentialities STI could bring to the field of ELT. Hopefully, my study will inspire
colleagues at the University of Quintana Roo and elsewhere to try out the pedagogical model as an intrinsic part of their curriculum and maybe get engaged in action research to further ascertain the potential value of STI.

The project focused exclusively on enhancing metalinguistic knowledge and so it is evident that regarding language use, my study did not provide much insight. We conclude in this respect, that a noticeable limitation of the methodological design was the lack of focus on activities aiming to enhance language use in context. The SCOBAs used for the materialisation phase were mostly oriented towards the concepts of tense and aspect from a metalinguistic approach and participants did not have any chance to practise the use of the target forms as such. Thus, I believe that not having implemented activities/tasks specifically oriented towards this type of activity resulted in a limited transfer of knowledge. This is something which can be addressed in further studies in order to help learners improve both their metalinguistic knowledge as well as their ability to become increasingly accurate in their use of the forms; clearly, the ultimate aim of L2 learning and teaching.

Another limitation found in the study is that the case studies where I conducted microgenetic analyses were only centred on the top scorers. This was primarily due to practical constraints in relation to time and writing space. It would, therefore, be important to conduct similar analyses of low scorers in future so that pertinent comparisons can be made.

My project only included the concept of tense/aspect in relation to present perfect, past continuous and simple past. We need to know whether or not STI can be as useful for learning/teaching other language features. A similar observation can be made regarding the potential contribution of Cognitive Linguistics for providing key input in the development of pedagogical materials.

Thus, among the recommendations for further research drawn from this study is that of the need for activities/tasks (based on the principles of STI) oriented towards the development of the target language concepts for use in context. The concepts of tense and aspect have been the central debate on an ample array of studies from different theoretical
approaches (for example, Bardovi-Harlig, 1995; Matsumoto & Dobs, 2017; Gaspar-García, 2012; Roberts & Liszka, 2013; Collins, 2007, etc.); however, there is still room for more research on these topics, as the need is also regarding their use in context but from an STI perspective. On this respect, Robinson, Cadierno, & Shirai (2009) have worked on the development of increasing task demands (high vs. low) and how these have promoted the use of tense-aspect morphology towards a more target-like-use of lexicalization patterns. Although Robinson et al.’s (2009) proposal was for a specific type of instruction (conceptually demanding tasks) their proposal could serve as a model that may be suitable to adapt within the STI criteria developed on the basis of SCOBAs and activities encouraging verbalisation. We have taken the study by Robinson, Cadierno, & Shirai (2009) as an example, as task-based instruction has at its heart communication and interaction and could therefore represent an avenue for building upon languaging premises.

As recommendations for further research, I would like to conclude with what I consider to be a first step to (a) start disseminating my research results among colleagues to create awareness of this alternative pedagogical approach and its potential benefits; and (b) simultaneously begin to promote the idea of considering action research. First of all, invited my colleagues (teacher trainers) to a presentation of my research results and they immediately became very interested, asking for information about the model and details about its possible implementation. Secondly, I have begun to promote action research (by inviting colleagues to become engaged in such a process) while attending a workshop with teacher trainees from 9th and 7th semesters of the Bachelors in English Language at the University of Quintana Roo (where the study took place two years ago). The participants (N=40) are studying pedagogical grammar and practicum. In answer to my initial question: ‘do you know the difference between tense and aspect?’ all of them answered ‘no’. I then proceeded to introduce STI and exemplify the model with relevant materials.

The two-hour workshop focused on a single conceptual unit: tense and aspect. I gave them the tutorials with SCOBAs and asked them to verbalise with their peers for 25 minutes; participants were divided into control and experimental groups. After they finished the materialization and verbalisation phases (altogether) I asked the initial question again. The control group participants were not able to explain the concept of aspect; they
were just able to quote grammar rules from what they remembered. By contrast, about a
dozen participants from the experimental group managed to provide fuller explanations of
the concept of aspect and demonstrated a clear grasp of key issues such as the importance
of speaker’s view on a given situation and verbal differences, e.g., events versus states. At
the end of the workshop more than one participant approached me and asked to me for
more information, and a few of them expressed a strong interest for further information and
advice.

Through this mini-training/workshop I have succeeded in creating interest among
fellow practitioners who are willing to take this further and shown an interest in learning
more about the approach so that they can consider trying it out with their students. This is
particularly important as the initiative also represents an opportunity to potentially work
with in-service teachers who have not had access to pedagogical alternatives for some time.
Being a leading higher education institution in the state of Quintana Roo, we are placed in a
particularly strong position to inspire innovation in current professional practice. It has to
be acknowledged, of course, that the findings of my study and those of preceding ones
which inspired it must be read cautiously given their limitations, but the research designs
are becoming more robust. We now need to ensure further attention is given to the question
of transfer from conceptual understanding at a metalinguistic level to the production and
use of L2 in communicative activity.

Finally, as a current teacher educator, I strongly advocate to continue exploring the
implementation of STI as a potentially effective pedagogical approach to enhance the
teacher training process. Throughout the exploration of the literature and from the
experience drawn from this study, I have confirmed that it could contribute to the
expansion of knowledge on any topic we educators aim to teach. Its completeness with its
full cycle of mediation forms (materialisation, verbalisation and internalisation) promises to
maximise the potentialities a learner can bring to the classroom.
Bibliography


Appendixes

Appendix 1. Bachelors in English Language Programme layout

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>AG-107</strong> LÓGICA S/N</td>
<td><strong>ACPLE-107</strong> IDIOMA INGLÉS I SIM</td>
<td><strong>ACPLE-108</strong> IDIOMA INGLÉS II SIM</td>
<td><strong>ACPLE-109</strong> IDIOMA INGLÉS III SIM</td>
<td><strong>ACPLE-110</strong> IDIOMA INGLÉS IV SIM</td>
<td><strong>ACPLE-111</strong> IDIOMA INGLÉS V SIM</td>
<td><strong>ACPLE-112</strong> IDIOMA INGLÉS VI SIM</td>
<td><strong>ACPLE-113</strong> IDIOMA INGLÉS VII SIM</td>
<td><strong>ACPLE-114</strong> IDIOMA INGLÉS VIII SIM</td>
<td><strong>ACPLE-115</strong> SEMINARIO DE TITULACIÓN SIM</td>
</tr>
<tr>
<td></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 12</strong></td>
<td><strong>Cred. 6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>AG-109</strong> MATEMÁTICAS S/N</td>
<td><strong>ACPLE-108</strong> GRAMÁTICA DEL ESPAÑOL SIM</td>
<td><strong>ACPLE-117</strong> ESCUCCHAR Y HABLAR EN INGLÉS SIM</td>
<td><strong>ACPLE-118</strong> LEER Y ESCRIBIR EN INGLÉS SIM</td>
<td><strong>ACPLE-119</strong> FILOSOFÍA DE LA EDUCACIÓN SIM</td>
<td><strong>ACPLE-140</strong> TECNOLOGÍA EDUCATIVA SIM</td>
<td><strong>ACPLE-141</strong> ACLEP-142 SIM</td>
<td><strong>ACPLE-114</strong> ACLEP-113 SIM</td>
<td><strong>ACPLE-114</strong> ACLEP-114 SIM</td>
<td><strong>ACPLE-145</strong> PRÁCTICA DOCENTE II SIM</td>
</tr>
<tr>
<td></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 10</strong></td>
<td><strong>Cred. 15</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 4</strong></td>
</tr>
<tr>
<td></td>
<td><strong>AD-145</strong> PRINCIPIOS DE PSICOFISIOLOGÍA CONT. S/N</td>
<td><strong>ACPLE-145</strong> LITERATURA UNIVERSAL SIM</td>
<td><strong>ACPLE-159</strong> TALLER AVANZADO DE REDACCIÓN SIM</td>
<td><strong>ACPLE-150</strong> ACLEP-153 SIM</td>
<td><strong>ACPLE-151</strong> PSICOLINGÜÍSTICA ACLEP-152 SIM</td>
<td><strong>ACPLE-153</strong> PSICOLINGÜÍSTICA ACLEP-152 SIM</td>
<td><strong>ACPLE-156</strong> TRADUC-D DOCUMENTACIÓN SIM</td>
<td><strong>ACPLE-156</strong> TRADUC-D DOCUMENTACIÓN SIM</td>
<td><strong>ACPLE-156</strong> TRADUC-D DOCUMENTACIÓN SIM</td>
<td><strong>ACPLE-156</strong> TRADUC-D DOCUMENTACIÓN SIM</td>
</tr>
<tr>
<td></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 10</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
<td><strong>Cred. 7</strong></td>
</tr>
<tr>
<td></td>
<td><strong>AG-108</strong> ESCRITURA Y COMPRENSIÓN DE TEXTOS S/N</td>
<td><strong>ACPLE-111</strong> SEMINARIO DE PROBLEMAS COLGEGUALES SIM</td>
<td><strong>ACPLE-147</strong> ACTIVIDADES DE LITERATURA SIM</td>
<td><strong>ACPLE-147</strong> ACTIVIDADES DE LITERATURA SIM</td>
<td><strong>ACPLE-147</strong> ACTIVIDADES DE LITERATURA SIM</td>
<td><strong>ACPLE-147</strong> ACTIVIDADES DE LITERATURA SIM</td>
<td><strong>ACPLE-147</strong> ACTIVIDADES DE LITERATURA SIM</td>
<td><strong>ACPLE-110</strong> ETICA SIM</td>
<td><strong>AG-110</strong> ETICA SIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 5</strong></td>
<td><strong>Cred. 6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>AG-151</strong> INGLÉS INTRODUCTORIO S/N</td>
<td><strong>ACPLE-152</strong> INGLÉS BÁSICO SIM</td>
<td><strong>ACPLE-153</strong> INGLÉS INTERMEDIO SIM</td>
<td><strong>ACPLE-154</strong> INGLÉS INTERMEDIO SIM</td>
<td><strong>ACPLE-155</strong> INGLÉS P<strong>ET</strong> SIM</td>
<td><strong>ACPLE-156</strong> INGLÉS PET SIM</td>
<td><strong>ACPLE-157</strong> <strong>FCE</strong> SIM</td>
<td><strong>ACPLE-158</strong> FCE SIM</td>
<td><strong>ACPLE-159</strong> <strong>CAE</strong> SIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td><strong>Cred. 6</strong></td>
<td></td>
</tr>
</tbody>
</table>

39  34  36  35  41  32  33  30  28

TOTAL DE CRÉDITOS: 335

*** A partir de la generación 2003
Appendix 2. Teacher’s manual Grammar Rules

GRAMMAR FOCUS

Learning objectives: practice talking about the past; ask and answer questions using Wh-questions with was/were and did

[CD 1, Track 2]

Past tense questions
- Books closed. Write those questions on the board. Ask Ss to complete them:
  1. Where _______ you born?
  2. When _______ you move to Los Angeles?

- Focus Ss’ attention on the Grammar Focus box. Then ask them to check their answers.

- Ask: “What is the difference between column 1 and column 2?” (Answer: Column 1 contains questions with be; column 2 contains questions with did.)

- Point out that we say “to be born” (not “to born”) and “to die” (not “to be died”).

- Elicit the rule for the two types of questions:
  To be: _____ + _______ + subject + (rest?)
  Other verbs: _____ + _______ + subject + infinitive + (rest?)

- Books open. Focus Ss’ attention on the Grammar Focus box. Play the audio program to present the questions and statements.

Option: Play the audio program again. Divide the class into two groups. One group repeats the questions and the other repeats the responses. For additional practice, switch roles.

A
- Read the instructions and model the task with the first question. Ss complete the exercise individually and then go over answers in pairs.

B
- Read the instructions. Model the task with one or two Ss by asking them these questions in part A: “Where were you born? Did you grow up there?”

- Ss work in pairs to take turns asking the questions and responding with their own information.

- Go around the class and give help as needed. Note any common grammatical problems. After pairs finish, go over the errors you noticed.

Answers
1. A: Could you tell me a little about yourself?
   - Where were you born?
   - A: I was born in Korea.
   - B: I grew up in Canada.

2. A: Where did you go to high school?
   - B: I went to high school in Ecuador.

3. A: Did you have a favorite teacher when you were a child?
   - B: Yes, I did. I had an excellent teacher named Mr. Woods.
   - A: What did he teach?
   - B: He taught English.
Appendix 3. Grammar Exercises (snap-shot & dialogs)

A Complete these conversations. Then practice with a partner.

1. A: Could you tell me a little about yourself?
   Where _______ you born?
   B: I ________ born in Korea.
   A: _________ you grow up there?
   B: No, I ________ . I ________ up in Canada.

2. A: Where ________ you go to high school?
   B: I _______ to high school in Ecuador.
   A: And when ________ you graduate?
   B: I ________ last year. Now I work as a salesperson.

3. A: _________ you have a favorite teacher when
   you ________ a child?
   B: Yes, I _______ . I _______ an excellent
   teacher named Mr. Woods.
   A: What ________ he teach?
   B: He ________ English.

B Pair work Take turns asking the questions in part A. Give your own information when answering.
Appendix 4. Consent form

PARTICIPANT INFORMATION SHEET AND CONSENT FORM

TO TAKE PART IN A RESEARCH PROJECT

Department of Language and Linguistics

Researcher’s name: Magnolia Negrete Cetina (contact email: mnegre@essex.ac.uk)
Supervisor’s name: Adela Gánem-Gutiérrez (contact email: aganem@essex.ac.uk)

Project title: Enhancing EFL teacher trainees’ cognition through Systemic Theoretical Instruction

What is the project about? The study aims to investigate the extent to which EFL teacher trainees’ cognition, specifically linguistic and pedagogical knowledge can be enhanced and developed through the implementation of Systemic Theoretical Instruction (STI) (Lantolf & Poehner, 2014) compared to traditional instruction (TI) during training at university.

What does participating involve: You will be asked to complete a questionnaire about your English education and participate in a short interview which will be audio-recorded. You will also be asked to complete a computer-based tutorial; finally, you will be asked to complete two types of tests so that I can evaluate the effectiveness of the tutorial. Overall, you will need to be available for approximately 12 hours over various days.

Please tick the appropriate boxes.

- I have read and understood the project information given above [ ] [ ]
- I have been given the opportunity to ask questions about the project [ ] [ ]
- I agree to take part in the project. Taking part in the project will include being interviewed and audio/video-recorded during some sessions as agreed with the researcher. [ ] [ ]
- I understand that my taking part is voluntary. I can withdraw from the study at any time and I do not have to give any reasons for why I no longer wish to take part. [ ] [ ]

Use of Information I provide for this project only

- I understand that my personal details such as name, e-mail address, and phone number will not be revealed to people outside the project. [ ] [ ]
- I understand that my words may be quoted anonymously in the report on this project. [ ] [ ]

Name of Participant (printed) ___________________________ Signature ___________________ Date________

Researcher (printed) Magnolia Negrete Cetina Signature ___________________ Date________
Appendix 5. Biodata Questionnaire

Biodata Questionnaire

1. Male  or  Female  (circle your answer)

2. How old are you? ____________

3. What is your mother tongue? ________________

4. Which semester are you in? (please circle the one corresponding to you)

   5º  7º  9º

5. Have you ever lived in an English speaking country? (circle your answer)

   YES    NO

   If your answer is YES, for how long and where did you live?
   _______________________________________________________

6. Apart from English, which other languages do you know or are currently studying?

   Language ______________________ For how long have you studied it? ____________
   Language ______________________ For how long have you studied it? ____________
   Language ______________________ For how long have you studied it? ____________

7. Do you have a special way of learning/studying new languages?
   For example reading, watching movies with no Spanish subtitles, playing video games, surfing the internet, etc? Please share us your experience.

Thanks a lot for participating!!!
Appendix 6. Oxford Placement Test

Oxford Placement Test 1
Grammar Test  PART 1

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Listening</td>
</tr>
<tr>
<td>Total Grammar</td>
</tr>
<tr>
<td>Grand Total</td>
</tr>
</tbody>
</table>

Look at these examples. The correct answer is ticked.

a. In warm climates people like are liking sitting outside in the sun.
b. If it is very hot, they sit at under the shade.

Now the test will begin. Tick the correct answers.

1. Water is to boil is boiling boils at a temperature of 100°C.
2. In some countries there is it is very hot all the time.
3. In cold countries people wear thick clothes for keeping to keep for to keep warm.
4. In England people are always talking about a weather the weather weather.
5. In some places it rains there rains it raining almost every day.
6. In deserts there isn’t the some any grass.
7. Places near the Equator have a warm the warm warm weather even in the cold season.
8. In England the coldest colder time of year is usually from December to February.
9. The most Most of Most people don’t know what it’s really like in other countries.
10. Very less little few people can travel abroad.
11. Mohammed Ali has won won is winning his first world title fight in 1960.
12. After he had won have won was winning an Olympic gold medal he became a professional boxer.
13. His religious beliefs have made him made him made him change his name when he became champion.
14. If he has would have had lost his first fight with Sonny Liston, no one would have been surprised.
15. He has travelled a lot both and or as a boxer and as a world-famous personality.

subtotal /15
Grammar Test  PART 2

51 Many teachers [say to say tell] their students should learn a foreign language.
52 Learning a second language is not the same as like than learning a first language.
53 It takes long time long a long time to learn any language.
54 It is said that Chinese is perhaps the world’s harder hardest more hard language to master.
55 English is quite difficult because of all the exceptions who which what have to be learnt.
56 You can learn the basic structures of a language quite quickly but only if you are wanting will to are willing to make an effort.
57 A lot of people aren’t used to the study to studying grammar in their own language.
58 Many adult students of English wish they would start would have started had started their language studies earlier.
59 In some countries students have to spend a lot of time working on by in their own.
60 There aren’t no any some easy ways of learning a foreign language in your own country.
61 Some people try to improve their English by hearing listening listening to the BBC World Service.
62 Live Life Living with a foreign family can be a good way to learn a language.
63 It’s no use to try trying in trying to learn a language just by studying a dictionary.
64 Many students of English would rather not would rather prefer not would rather not to take tests.
65 Some people think it’s time we all learn should learn learnt a single international language.

Charles Walker is a teacher at a comprehensive school in Norwich. He has joined joined joins the staff of the school in 1998 and has been working worked works there ever since.
Before move to move moving to Norwich, he taught in Italy and in Wales, and before that he has been was was being a student at Cambridge University. So far he isn’t wasn’t hasn’t been in Norwich for as long as he was in Wales, but he likes the city a lot and should would could like to stay there for at least another two years, or how which as he puts it, until his two children have will have will be grown up a bit.
He met his wife, Kate, in 1992 while he was to live was living had been living abroad for a while, and they got married in 1996.
Their two children, Mark and Susan, are were have been both born in Norwich.

subtotal /25
Appendix 7. MLK Test

Instructions: This test consists of two parts: part A and part B; when you finish answering part A, give the paper to the researcher who, in turn, will give you part B. Please answer the questions as fully as you can. You can answer in English or in Spanish.

Part A

1. Can you explain what tense is?
2. Can you explain what aspect is?
3. English verbs can be marked for two aspects, can you name them and explain how they are formed?
4. What would you say the relationship between time and tense is?
5. Can you give examples of how the following verbs inflect in past and non-past:
   Past:
   1. (work) Example sentence:
   2. (leave) Example sentence:
   Non-past:
   3. (work) Example sentence:
   4. (leave) Example sentence:
6. Verbs are words that enable us to talk about situations such as events and states and they intrinsically evoke certain characteristics in our minds; each of the verbs in ‘be happy’, ‘live in London’, ‘listen to music’, ‘kick a ball’ evoke specific inherent characteristics. Please write the four verbal phrases (‘be happy’, ‘live in London’, ‘listen to music’, ‘kick a ball’) in the appropriate box, one has been completed as an example:

   ![Diagram](image-url)
7. Can you define the terms in a-d and give an example in English?

(a) bounded situation:
Example:

(b) unbounded situation:
Example:

(c) maximal viewing frame:
Example:

(d) restricted viewing frame:
Example:

8. We use the present perfect to communicate or convey four main meanings in English: experiential, resultative, recent and continuative. Can you complete the table with the information in the box? we have completed the first items for you:

<table>
<thead>
<tr>
<th>Example</th>
<th>Focus</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>She has just finished her essay.</td>
<td>We can use the perfect in combination with a lexical item such as 'just' to focus on the notion of recentness.</td>
<td>Recent</td>
</tr>
</tbody>
</table>

Part B
1. Describe the difference in meaning of the present perfect versus the simple past between the (a) and (b) members of the following pairs:

(i) a. I’ve been in the army for two years.

   b. I was in the army for two years.

(ii) a. Have you seen Jill?

   b. Did you see Jill?

(iii) a. It was the best meal I’ve had all week.

   b. It was the best meal I had all that week.

(iv) a. She has gone to Moscow.

   b. She went to Moscow.

(v) a. I’ve got the milk

   b. I got the milk
2. Describe the **difference in meaning** between the (a) and (b) members of the following pairs:

(i) a. I cycle to work.
   
   b. I am cycling to work.

(ii) a. When Tom called she phoned me.
    
   b. When Tom called she was phoning me.

(iii) a. The train arrived.
    
   b. The train was arriving.

(iv) a. You annoy me.
    
   b. You are annoying me.

(v) a. He wrote an editorial.
    
   b. He was writing an editorial.

END OF TEST

THANK YOU!

Activities for Part B taken from Huddleston and Pullum (2005: 62)
Appendix 8. Language in Use Test

Instructions: the following passage is missing some words that you must complete using either multiple choice or conjugating the infinitives.

Grandpa Emilio is 97 years old, he has had a nice life. He was born in the small town of Tinúm, Yucatán on August 8th, 1917 and arrived in Chetumal, Quintana Roo on February 10th 1956. Who could have said that it (1) _____________ to be a mix of destiny, fate and nature blended together?!

It was during the 1920’s that he was brought by his uncle to live at the ‘Hacienda Henequenera X’nóbó’. His mother (2) _____________ when he was very little, so his father let him go to the hacienda to help his uncle, since he was educated. He always (3) _____________ he was a very smart kid! If he had remained at his home town Tinúm, he might (4) _____________ his love for music. It (5) _____________ at the hacienda where he knew a music teacher that used to be friends with his uncle who taught him the basics of music; how to read, write and play music particularly the trumpet.

Grandpa Emilio always says that it was all because of President Lázaro Cárdenas’ nationalisation process that the big henequen haciendas became (6) _____________ . He says that the Hacienda Henequenera X’nóbó (7) _____________ perfectly with a very high production of henequen for many years until it was nationalised and it all stopped. From his perspective, the locals (8) _____________ enough money to invest in the infrastructure nor big machines needed for the production as the original owners did. Therefore, the whole production was ruined. He says, “If nationalisation (9) _____________ , I would (10) _____________ there for many more years”.

So, the events from X’nóbó brought him back to Tinúm his hometown; where he (11) _____________ his musical knowledge and where he soon formed a musical band to play at local fairs, official events and private parties. In no time at all he (12) _____________ with bands in Merida and all over the state of Yucatán and he started going on tour to Veracruz, Campeche, México city and even to Havana Cuba to play for bands like Benny Moré’s band and Pérez Prado’s band. Grandpa Emilio jokes saying “if I would (13) _____________ in Cuba, I would (14) _____________ with a Cuban girl!!

It was in 1945 that he (15) _____________ to grandma Rita in Mérida, Yucatán. Grandma Rita (16) _____________ by great-grandpa Pedro to Merida to meet her siblings and get to know the big city. Although she was born in Valladolid, Yucatán, her parents had decided (17) _____________ to Chetumal when she was very little.

In Merida she lived with her sister Clara who took her to a ball where Rita met this skinny trumpet player boy from the band whom eventually was to (18) _____________ her husband. Interestingly enough, Emilio was already engaged to someone else! But when he met Rita he changed his mind and soon they (19) _____________ married, having asked the latter to be his bride!

Soon Emilio and Rita (20) _____________ the knot at the Cathedral in Merida in May 1947 and started raising a family. They used to live on ‘Itzaes’ avenue where Pedro Infante (the famous actor and singer) used to be their neighbour and good friend while he was dating actress Irma Dorantes. During their years in Merida they (21) _____________ four children and Emilio kept playing with different bands.

One day, while Emilio (22) _____________ the ‘trumpet solo’ of the famous “Macarena” a song of ‘coplas españolas’ which is typical of bull fighting events at the “Plaza de Toros” in Mérida, the Governor of Quintana Roo Margarito Ramírez saw him performing. Later when Governor Margarito went back to Chetumal he realised that because of Hurricane Janet on the 27th of September 1955 had caused devastation to the city of Chetumal many musicians of the local band (23) _____________ to go to other towns. He thought then that it would be a great idea to invite that ‘solo trumpeter’ (grandpa Emilio) whom he (24) _____________ at the plaza de toros in Merida a few weeks earlier. The governor said to the musicians, “I saw this great trumpeter playing ‘The Macarena’ in Mérida at the plaza de toros and I would like to invite him to join the band!” It turned out that Emilio was the son in law of great-grandpa Pedro who was also a musician (clarinetist) in the band of Chetumal! In that moment great-grandpa Peter told Governor Margarito “Hey! That is my son in law married to my youngest child Rita! I am sure he (25) _____________ if you send him an invitation to be part of the band!”

A few weeks later grandpa Emilio received the letter from Governor Margarito Ramírez to join the band of the state of Quintana Roo and soon after he and his family (26) _____________ to Chetumal. They took a plane from Merida to Chetumal and guess who (27) _____________ the plane??! The legendary Pedro Infante was the pilot that day! So, they flew to Chetumal and (28) _____________ happily ever after.

Grandpa Emilio and grandma Rita had nine children in total. Grandma Rita passed away in 2005 and two of their children passed away recently. Grandpa Emilio lives in the same house and thank God he is healthy and in good shape. Everyday he (29) _____________ the garden, (30) _____________ the newspaper and looks after himself and one of his sons that still lives with him. He says he is happy and satisfied with life and that he (31) _____________ anywhere else.
1. to be/go
   a) to be
   b) to go

2. decease
   a) deceased
   b) deceased
   c) deceased
   d) deceased

3. insisting
   a) insisting
   b) insisted
   c) Have insisted
   d) Had been insisting

4. a) Has not developed
   b) Is not developed
   c) Was not developed
   d) Have not developed

5. to be
   a) Will have been staying
   b) Will be performing

6. disrupt
   a) Had been operating
   b) Was been operating
   c) Have been operating
   d) Will be operating

7. a) do not have
   b) will not have
   c) did not have
   d) will not having

8. a) were been getting
   b) were getting
   c) will be getting
   d) will get

9. a) had not occurred
   b) did not occur
   c) have not occurred
   d) will have not happen

10. a) have been staying
    b) been staying
    c) will have been staying
    d) have stayed

11. advance
    a) had starred
    b) was being starring
    c) had star
    d) was starring

12. a) is performing
    b) was performing
    c) performed
    d) was performed

13. remain
    a) have listened
    b) has listened
    c) was listened
    d) had listened

14. a) have end up
    b) ends up
    c) ending up
    d) have ended up

15. introduce
    a) had been sent
    b) was sent
    c) is sent
    d) have sent

16. a) moving
    b) moved
    c) did move
    d) have moved

17. a) move
    b) to move
    c) have moved
    d) had moved

18. become
    a) was become
    b) will become
    c) have become
    d) has become

19. a) were being getting
    b) were getting
    c) will be getting
    d) will get

20. a) tie
    b) tied
    c) had tied
    d) will tied

21. bring up
    a) had not been living
    b) have not been living
    c) will have not been living
    d) would not have been

22. a) is performing
The tense/aspect system in English

- This tutorial aims to help you understand how our human minds make sense of the world and how we use language, more specifically grammar, to communicate our individual perspectives on situations and time.
- So, to understand how the tense/aspect system in a given language works we need to understand how verbs work, how we use grammar to describe a particular view of a situation (aspect) and how we ground or locate situations in time (non-retrospectively or retrospectively) by means of tense.
- In other words, grammatical markers (e.g., past, progressive, perfect) are tools that enable speakers to locate an event or a situation in time (direction from which a situation is accessed) and highlight the speaker’s view or perspective of a situation.

Verbs

First, let’s talk about verbs

- We use verbs to describe situations such as:
  - Events: “build a house” or “kick a door” OR
  - States: “be of British origin” or “go to the gym”
- Verbs inherently (intrinsically) evoke certain characteristics in our minds that have to do with how we perceive the world around us for example we see situations as more or less dynamic, punctual (repetitive), expected to come to an end at some point in time, etc.
- If we want to describe these verb characteristics in a visual way, we can use the following diagrams:

<table>
<thead>
<tr>
<th>Inherent properties of situations</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>events</td>
<td>states</td>
<td></td>
</tr>
<tr>
<td>Qualitative constitution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>undergo some internal development and are more dynamic than states</td>
<td>do not involve any internal change</td>
<td></td>
</tr>
<tr>
<td>Time contour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>have inherent boundaries: they are supposed to come to an end at some point</td>
<td>do not have inherent boundaries because they are seen as rather permanent situations</td>
<td></td>
</tr>
</tbody>
</table>

So, verbs help us express two types of situations: events and states

- Events
  - undergo some internal development and are more dynamic than states
  - have inherent boundaries: they are supposed to come to an end at some point

- States
  - do not involve any internal change
  - do not have inherent boundaries because they are seen as rather permanent situations
Verbs help us express two types of situations: **events** and **states**

### Events
- Activity: *read a book*
- Accomplishment: *build a house*
- Process of change: *grow plants*
- (Repeated) act: *knock at a door*
- Achievement: *realize something*

### States
- State of being: *be European, be happy*
- Emotional state: *love working*
- Mental state: *believe in something*
- Perceptual state: *hear something*
- Habitual state: *work for the University*

---

**Before you continue, do you remember the differences between 'events' and 'states'?**

**Events**

**States**

---

**How did you do?**

**Events**

- undergo some internal development and are more **dynamic** than states
- have inherent boundaries: they are supposed to come to an end at some point

**States**

- do not involve any internal change
- do not have inherent boundaries because they are **seen as rather permanent situations**
Summary (describing situations)

The tense/aspect system in English

- Grammar is a great tool which we use to describe a particular view of a situation (aspect) and how we ground or locate situations in time (non-retrospective or retrospectively) by means of tense.

- In other words, grammatical markers (e.g., past, progressive, perfect) are tools that enable speakers to locate an event or a situation in time (direction from which a situation is accessed) and highlight the speaker’s view or perspective of a situation.

- So, OUR choice of grammar markers interacts with the inherent (intrinsic) characteristics of verbs so that we can express meaning...so that WE can describe situations from our own perspective.

The tense/aspect system in English

- As we said at the beginning, this tutorial aims to help you understand how our human minds make sense of the world and how we use language, more specifically grammar, to communicate our individual perspectives on situations and time.

- We said that to understand how the tense/aspect system in a given language works we need to understand how verbs work and that is what we have been looking at so far...to recap...

The tense/aspect system in English

To put this differently, every time a language user wants to talk about a situation, s/he has to choose between the following dichotomies to communicate his/her meaning:

- In terms of a tense marker:
  i. either proximal stance (present / reality) or distal stance (past / irreality)
  ii. In terms of an aspect marker:
    ii. either non-retrospective viewing direction (straight) or retrospective viewing direction (backward) and
    iii. either non-progressive viewing scope (maximal viewing frame) or progressive viewing scope (restricted viewing frame)
### Tense marking examples

<table>
<thead>
<tr>
<th>relevance time</th>
<th>existential status</th>
<th>real</th>
<th>unreal</th>
</tr>
</thead>
<tbody>
<tr>
<td>present</td>
<td>zero marking</td>
<td>e.g. walk(s); am/is/are</td>
<td>'past tense'—ed morpheme/irregular 'past tense' form</td>
</tr>
<tr>
<td>past</td>
<td>'past tense'—ed morpheme/irregular 'past tense' form</td>
<td>e.g. walked; was/were</td>
<td>'double tense shift' / 'past perfect' form</td>
</tr>
</tbody>
</table>

### Tense + Aspect

- As you can see, our language choices are influenced by how our human minds make sense of the world and the linguistic resources we use to communicate our individual perspectives on events and time.
- Notions such as situation type and distance play a role in communication.

### As individuals, we all constantly choose from various language alternatives that allow us to convey what we perceive and how we interpret the world around us.

- For example, grammatical aspect (e.g., simple past, progressive, perfect morphemes) interacts with situation type (inherent verb properties) to signal specific viewing positions.
- Depending on the context, some verbs can have both dynamic and stative meanings.

### Tense + Aspect

- Let's see how all this works in communication...
- First, we said that verbs have inherent (intrinsic) characteristics...
Example: *read* a book

- **Situation**
  - event
  - state
  - **durative**
    - punctual (repeated act)
    - transitory
    - permanent
  - **read a book**
  - **knock at a door**
  - **work for the University**
  - **be European/happy**

Abstract example: *read* a book

- In *abstract* terms, the situation described by ‘*read* a book’ is a durative event which has *inherent boundaries*: it is supposed to come to an end at some point.

…when thought meets language…
however, when we describe a situation we do so from our own perspective, we *construe* what we want to communicate; for example, we can say...

The interaction between situation type & grammatical aspect

(i) *events and grammatical aspect*

- non-progressive aspect
  - Lucy *read* three books last month.
  - By using the inflected verb form in the simple past, we choose a
    - maximal viewing frame:
      - The situation is viewed in its entirety, from its beginning to its end.
      - The boundaries of the situation are in focus.
...by contrast we could also describe a situation as ongoing...

The interaction between situation type & grammatical aspect

(i) events and grammatical aspect

progressive aspect

- Lucy was reading a book when I arrived.
- By using the progressive verb form, we choose a

> restricted viewing frame:
- We ‘zoom in’ on the situation and view it as ongoing, as an ‘unbounded’ event. The inherent boundaries of the verb ‘read’ are not in focus.

Example: knock at a door

Abstract example: knock at a door

- In abstract terms, the situation ‘knock at a door’ is a punctual event which has inherent boundaries: it is supposed to come to an end at some point, but unlike the activity of ‘reading’ in our previous example, the act of ‘knocking’ is inherently brief
The interaction between situation type & grammatical aspect

(i) events and grammatical aspect

non-progressive aspect

- Tom knocked at the door and made me jump.
- By using the inflected verb form in the simple past with a punctual event, we choose a

> maximal viewing frame:
- The situation is viewed in its entirety, from its beginning to its end.
- The boundaries of the situation are in focus.
- We interpret the event as a single act.
The interaction between situation type & grammatical aspect

(i) events and grammatical aspect

progressive aspect

- Tom was knocking at the door, but I couldn’t hear.

- By using the inflected verb form in the progressive with a punctual event, we choose a restricted viewing frame:
  - We ‘zoom in’ on the situation and view it as repetitive, as an ‘unbounded’ event. The inherent boundaries of the verb ‘knock’ are not in focus instead...
  - We interpret the event as a continuous repetitive act.

Example: work for the University

- In abstract terms, the situation described by ‘work for the University’ is a habitual state which has NO inherent boundaries. Although it is potentially a transitory situation (due to retirement or change of job) it can be perceived as rather permanent.
So let's see some of the ways in which we, as speakers, can construe situations described by the verb 'work'...

The interaction between situation type & grammatical aspect

(i) events and grammatical aspect

non-progressive aspect

- My sister works for the University.
- By using the non-progressive verb form, we choose a
  > maximal viewing frame:
  - The boundaries of the situation are NOT in focus.
  - The situation is construed as an unbounded, habitual state, as being permanent.

The interaction between situation type & grammatical aspect

(i) events and grammatical aspect

progressive aspect

- My sister is currently working for the University.
- By using the progressive verb form, we choose a
  > restricted viewing frame:
  - We 'impose' boundaries on an inherently unbounded habitual state and give it a temporary quality.
Summary (describing situations)

The interaction between situation type & grammatical aspect

(ii) States and grammatical aspect

non-progressive aspect

- Juan is a happy man.
  > maximal viewing frame:
  - The state is seen as permanent.
  - It does not have any boundaries because it is indefinitely lasting.

progressive aspect

- The previous slides showed a few diagrams, before you continue, could you explain which terms and notions you’d associate with which diagrams and why? You can use the letters and numbers to say how you’d match the boxes and why.

- Yesterday, Juan was being miserable because he didn’t feel well.
  > restricted viewing frame:
  - The state is only temporary.
  - We ‘zoom in’ on the state and thereby impose boundaries on it.
• Were you right? These are the right matches:

A  Events
   Simple past
   maximal viewing
   frame:
   The situation is
   viewed in its entirety,
   from its beginning to
   its end.
   The boundaries of
   the situation are in
   focus.

B  States
   Progressive
   restricted viewing
   frame:
   The state is only
   temporary.
   We zoom in on the
   state and thereby
   impose boundaries
   on it.

C  Events
   Progressive
   restricted viewing
   frame:
   The state is only
   temporary.
   We ‘zoom in’ on the
   situation and view it
   as ongoing, as an
   ‘unbounded’ event.
   The boundaries are
   not in focus.

D  States
   Simple past
   maximal viewing
   frame:
   The state is seen as
   permanent.
   It does not have any
   boundaries because
   it is indefinitely
   lasting.

• So far, we have been considering ‘viewing
  scope’. However, it is not just a question of
  perceiving events and states as either
  bounded or unbounded (maximal or
  restricted viewing frame), there are other
  notions in our mind which play a role as to
  how we conceptualize (and therefore
  communicate) a situation. We will now
  consider ‘viewing direction’ which is also
  related to the use of ‘perfect’ forms (or
  ‘retrospective aspect’, e.g., present and
  past perfect.

Thinking about time

A prevalent model for the way in which we
conceptualise time (at least in Western
cultures) can be shown as follows:

Another language tool we have to talk about
past situations is the ‘present perfect’ or
‘retrospective’. We use this form to ‘look
backward’ on situations that continue to
have relevance at the moment of speaking.
Another language tool we have to talk about past situations is the ‘present perfect’ or ‘retrospective’. We use this form to ‘look backward’ on situations that continue to have relevance at the moment of speaking.

The main meanings we communicate when we use the ‘present perfect’ or ‘retrospective’ are:

2. *Experiential*: When we want to focus on a past event which remains memorable; for example, “She has climbed Mount Everest”

So, the main meanings we communicate when we use the ‘present perfect’ or ‘retrospective’ are:

1. *Resultative*: When we want to focus on the outcome of an event; for example, “Tom has written two books on English history”

The main meanings we communicate when we use the ‘present perfect’ or ‘retrospective’ are:

3. *Recent*: When we want to focus on the notion of recentness we can use the perfect in combination with a lexical item such as ‘just’; for example, “She has just finished her essay”
The main meanings we communicate when we use the 'present perfect' or 'retrospective' are:

4. **Continuative**: When we want to focus on a past event which remains relevant at the moment of speaking; for example, “I have worked for the University for 10 years” (and still do).

---

**Tense/aspect marking**

- To conclude, there are various notions in our mind and in the way in which we perceive situations as speakers (conceptualizers) which influence our CHOICES when talking about events and situations.
- Aspectual contrasts are marked grammatically; in other words, when talking about past events we choose certain verb forms such as simple past, past progressive or present perfect.
- It is also important to remember that contextual information can alter aspectual interpretation and that the inherent aspectual value of verbs (e.g., dynamicity, punctuality, etc.) can be reversed by the morphological form used (simple past, past progressive, etc.).

---

- So, as you can see we – as speakers – use and combine grammatical tools such as tense (present vs past) and aspect (perfect vs progressive) to convey and communicate specific meanings including distance with reference to the time-line or a situation. If we want to be polite, for example, we can use simple past to express distance. As in ‘could you open the window?’

---

**Tense/aspect marking**

- This tutorial aimed at helping you understand how we use grammar to describe a particular view of a situation or event: this is what we call aspect;
- … and we also discussed this with reference to how we locate (ground/anchor) situations in time by means of tense. We focused on situations and events that took place in the past so we focused on the contrasts conveyed by the simple past, the past continuous and the present perfect.
- Could you think about what you remember based on the tutorial? What would you say to a colleague who wants to help his/her English learners talk about situation that occurred in the past?
# Appendix 10. Transcription Convention

(Gánem-Gutiérrez, 2004)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>J:</td>
<td>speaker</td>
</tr>
<tr>
<td>T:</td>
<td>teacher</td>
</tr>
<tr>
<td>()</td>
<td>brief pause</td>
</tr>
<tr>
<td>((pause))</td>
<td>longer pause</td>
</tr>
<tr>
<td>[</td>
<td>overlapping</td>
</tr>
<tr>
<td>=</td>
<td>latching: when one starts speaking immediately another has finished</td>
</tr>
<tr>
<td>(</td>
<td>indecipherable</td>
</tr>
<tr>
<td>((</td>
<td>any comments like ((cough)) ((sneeze))</td>
</tr>
<tr>
<td>,</td>
<td>slight rise in intonation</td>
</tr>
<tr>
<td>?</td>
<td>rising intonation</td>
</tr>
<tr>
<td><strong>capital letters</strong></td>
<td>to show speaker’s emphasis</td>
</tr>
<tr>
<td>“ “</td>
<td>reading aloud</td>
</tr>
<tr>
<td><em>italics</em></td>
<td>translation into English</td>
</tr>
<tr>
<td>➡️</td>
<td>to draw the reader’s attention to something</td>
</tr>
</tbody>
</table>
Appendix 11. Tutorial Traditional Instruction Control Group

(36 slides in total)

Las formas de Tiempo & Aspecto

<table>
<thead>
<tr>
<th>Tiempo</th>
<th>Simple</th>
<th>Progresivo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presente</td>
<td>wrote/writes</td>
<td>will be writing</td>
</tr>
<tr>
<td>Pasado</td>
<td>wrote/walked</td>
<td>has been writing</td>
</tr>
<tr>
<td>Futuro</td>
<td>will write/will walk</td>
<td>will have been writing/will have been walking</td>
</tr>
</tbody>
</table>

Tiempo y Aspecto

- **Tiempo gramatical** se refiere al **Tiempo cronológico**
  - Tiempo gramatical es lo que determina si una acción o evento ocurre en presente, pasado o futuro.

- **Aspecto** tiene que ver con la estructura interna de la acción que puede ocurrir **en cualquier momento** (tiempo cronológico).
  - En inglés hay cuatro tipos de aspectos: 1) el simple –a veces llamado 'aspecto cero', 2) el perfecto, 3) el progresivo, y 4) el progresivo perfecto.

- La combinación de los tres diferentes tiempos gramaticales (presente, pasado y futuro) y los cuatro aspectos permiten la creación de un total de 12 tiempos gramaticales in inglés.
- Por lo tanto, cada tiempo gramatical: **presente, pasado y futuro** pueden utilizar los diferentes tipos de aspectos.

Tiempo y verbos

- Para cada tiempo gramatical hay una forma correspondiente de conjugar el verbo.

<table>
<thead>
<tr>
<th>TIEMPO</th>
<th>Simple</th>
<th>Perfecto</th>
<th>Progresivo</th>
<th>Progresivo Perfecto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presente</td>
<td>wrote/writes</td>
<td>has/have written</td>
<td>was/were writing</td>
<td>has/have been writing</td>
</tr>
<tr>
<td>Pasado</td>
<td>wrote/walked</td>
<td>had written/walked</td>
<td>had been writing</td>
<td>had been walking</td>
</tr>
<tr>
<td>Futuro</td>
<td>will write/will walk</td>
<td>will have written/will have walked</td>
<td>will be writing</td>
<td>will have been writing/will have been walking</td>
</tr>
</tbody>
</table>

Tiempo y verbos [cont’]

- Algunas verbos generalmente no son usados en forma de modo progresivo.

Algunos de estos verbos son:

- **Have**
- **Know**
- **Like**
- **Love**
- **Want**
Tiempo gramatical en tiempo cronológico

- Cada uno de los tiempos gramaticales, presente, pasado y futuro se encuentran ubicados en una línea del tiempo imaginaria.

LÍNEA del TIEMPO

Pasado   Presente   Futuro

- Como vimos anteriormente, cada uno de los tiempos gramaticales tiene una forma simple, perfecta, progresiva y progresiva perfecta que se conocen también como aspecto.

Verbos

- La mayoría de los verbos pueden ser conjugados en casi todos los tiempos gramaticales; en pasado simple se agrega el sufijo ed al final para los verbos regulares. En el caso de los verbos irregulares en algunas ocasiones se cambia la forma del verbo. Para el pasado participio los verbos regulares mantienen su forma en pasado para usarse en participio, en tanto que los verbos irregulares en la mayoría de los casos cambian su forma en modo participio. Por ejemplo:
  - Look – looked - looked (regular)
  - Study – studied – studied (regular)
  - Buy – bought – bought (irregular)
  - Think – thought – thought (irregular)
  - Sing – sang - sung (irregular)
  - Fly – flew – flown (irregular)

Aspecto en el tiempo gramatical

- Así, para cada tiempo gramatical, presente, pasado o futuro hay una forma de presentar sucesos con aspecto simple, perfecto, progresivo o progresivo perfecto que es básicamente observar un suceso o evento desde una perspectiva más cercana.

- De los cuatro tipos de aspectos, hay dos los cuales son utilizados con mayor frecuencia: el simple vs. el progresivo.

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>PROGRESIVO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbo en modo infinitivo/neutro; o cualquier forma no progresiva.</td>
<td>Verbo en modo progresivo (-ing)</td>
</tr>
<tr>
<td>El evento/suceso es percibido como con un punto de inicio y final claros.</td>
<td>El evento/suceso es percibido como en función/sucediendo al mismo tiempo que otros eventos estaban ocurriendo.</td>
</tr>
</tbody>
</table>

Aspecto vs. Progresivo

- El aspecto Simple se refiere a eventos que son permanentes o que no cambian (i.e. estados o hábitos) como se describen en el presente simple (e.g. She lives in Seattle; She teaches English).

- El aspecto Simple nos indica que los eventos tienen un punto de inicio y fin específicos. Los eventos han sido concluidos o se indica que ocurren de manera regular.

- El aspecto Progresivo se refiere a eventos o acciones que están sucediendo en el momento de hablar, o a acciones momentáneas; eventos en progreso aún sin concluir (e.g. I’m working in Japan [right now] = I don’t always work in Japan because I usually work in Seattle).
### Tiempo Presente

<table>
<thead>
<tr>
<th>ASPECTO</th>
<th>Simple</th>
<th>Perfect</th>
<th>Progressive</th>
<th>Perfect Progressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>write/writes</td>
<td>write/has written</td>
<td>writing</td>
<td>have/has been writing</td>
</tr>
<tr>
<td>Passed</td>
<td>wrote walked</td>
<td>wrote writing</td>
<td>had been writing</td>
<td>had/has been walking</td>
</tr>
<tr>
<td>Future</td>
<td>will write/will walk</td>
<td>will be writing</td>
<td>will have been writing</td>
<td>will have been walking</td>
</tr>
</tbody>
</table>

El tiempo presente simple permite el uso de cuatro tipos diferentes de aspectos: mira los ejemplos:

- **SIMPLE**: She **lives** in Seattle and teaches English at a language academy.
- **PERFECTO**: She **has taught** English for 10 years.
- **PROGRESIVO**: She **is teaching** beginners and intermediates this term.
- **PROGRESIVO PERFECTO**: She **has been thinking** in teaching abroad.

### Tiempo Pasado

<table>
<thead>
<tr>
<th>ASPECTO</th>
<th>Simple</th>
<th>Perfect</th>
<th>Progressive</th>
<th>Perfect Progressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>wrote</td>
<td>had written</td>
<td>writing</td>
<td>have/has been writing</td>
</tr>
<tr>
<td>Passed</td>
<td>walked</td>
<td>had walking</td>
<td>had been writing</td>
<td>had/has been walking</td>
</tr>
<tr>
<td>Future</td>
<td>will write</td>
<td>will have written</td>
<td>will be writing</td>
<td>will have been writing</td>
</tr>
</tbody>
</table>

El pasado simple también utiliza los cuatro diferentes tipos de aspectos. Mira los ejemplos:

- **SIMPLE**: He **answered** the phone and **wrote** memos at work yesterday.
- **PERFECTO**: He **had started** the memo when the phone rang.
- **PROGRESIVO**: He **was writing** the memo when the phone rang.
- **PROGRESIVO PERFECTO**: He **had been writing** all morning.

### Tiempo Futuro

<table>
<thead>
<tr>
<th>ASPECTO</th>
<th>Simple</th>
<th>Perfect</th>
<th>Progressive</th>
<th>Perfect Progressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>will write</td>
<td>will have written</td>
<td>will be writing</td>
<td>will have been writing</td>
</tr>
<tr>
<td>Passed</td>
<td>will walk</td>
<td>will have walked</td>
<td>will be walking</td>
<td>will have been walking</td>
</tr>
<tr>
<td>Future</td>
<td>will visit</td>
<td>will have visited</td>
<td>will be visiting</td>
<td>will have been visiting</td>
</tr>
</tbody>
</table>

El futuro simple también utiliza los cuatro diferentes tipos de aspectos. Mira los ejemplos:

- **SIMPLE**: They **will visit** the grandparents next year.
- **PERFECTO**: They **will have visited** the grandparents by next summer.
- **PROGRESIVO**: They **will be visiting** the grandparents for three weeks.
- **PROGRESIVO PERFECTO**: They **will have been visiting** the grandparents by July.
Aspecto Simple

El aspecto **Simple** se refiere a eventos que son **permanentes** o que nunca **cambian** (i.e. **estados** o **hábitos**) como se describen con el presente simple.

**Sujeto + verbo principal + complemento**

(tiempo pasado)

EXAMPLE:
1) This morning **he read** the newspaper;
2) while **he took** breakfast.

El aspecto **Simple** nos indica que los eventos, estados o hábitos tienen un punto de inicio y final definidos; el aspecto simple puede ocurrir en cualquier tiempo gramatical.

Aspecto Progresivo

El aspecto **Progresivo** se refiere a acciones o eventos **incompletos que no han concluido aún**. Se refiere a eventos verdaderos que están sucediendo al momento de hablar; también considerados como acciones "momentáneas".

they’re **visiting** their parents [right now]
they’re there for only a few days,
but they have to go home on Friday

Pueden suceder en el presente, pasado o futuro.
Aspecto Progresivo [cont]

El aspecto **progresivo** se refiere a acciones o eventos **incompletos que no han concluido aún**. Se refiere a eventos verdaderos que están sucediendo al momento de hablar; también considerados como **acciones 'momentáneas'**.

**Time line**

1. He **was writing** the memorandum and **answering** the phone all morning. (Both activities are momentary).
2. He **is painting** the house this week. (It only takes a few days to paint the house).

Pueden suceder en el presente, pasado o futuro

Aspecto Perfecto

El aspecto **perfecto** se refiere a eventos que iniciaron en el pasado y continúan sucediendo en el presente y aún son relevantes.

**Sujeto + verbo auxiliar + verbo principal + complemento**

**(to be was/were)**

**(-ing)**

Línea del tiempo

El aspecto **perfecto** se refiere a eventos que iniciaron en el pasado y continúan sucediendo en el presente y aún son relevantes.

**Sujeto + verbo auxiliar + verbo principal + complemento**

**(have/has)**

**(en participio)**

1) He **was writing** the memorandum and;
2) **answering** the phone all morning.

**She has taught** English since 2005
(Shel still teaches English − until today)
As we mentioned previously, all the grammatical tenses (present, past and future) can have different types of aspect (simple, progressive and perfect).

<table>
<thead>
<tr>
<th>TIEMPO</th>
<th>Simple</th>
<th>Perfecto</th>
<th>Progresivo</th>
<th>Perfecto Progressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>white, write, work</td>
<td>have written, have worked</td>
<td>have been writing, have been working</td>
<td>have been writing, have been working</td>
</tr>
<tr>
<td>Past</td>
<td>white, write, work</td>
<td>have written, have worked</td>
<td>have been writing, have been working</td>
<td>have been writing, have been working</td>
</tr>
<tr>
<td>Future</td>
<td>will write, will work</td>
<td>will have written, will have worked</td>
<td>will be writing, will be working</td>
<td>will have been writing, will have been working</td>
</tr>
</tbody>
</table>

Pastado  
Presente  
Futuro  

As we mentioned previously, all the grammatical tenses (present, past and future) can have different types of aspect (simple, progressive and perfect).

**As we mentioned previously, all the grammatical tenses (present, past and future) can have different types of aspect (simple, progressive and perfect).**

**Vamos a ver algunos ejemplos utilizando los aspectos: simple, progresivo y perfecto.**

**This is my friend Maria.**
- She lives in Rome because
- She has worked there since 2010.
- She is working in Chile this summer.
- She has there a summer house there.

**These are my friend Maria’s parents:**
- They are (am/is/are) retired now.
- In the summer time they live in England and in the winter time they live in Masson and right now, they are spending (spend) the summer time in England.

**This is Randy, Maria’s brother:**
- He is a professional photographer and travels around the world taking extreme photography in far and exotic places. He has today photos to wild animals and dangerous natural events like volcanoes eruptions.
- He is spending the summer with Maria in Italy.

**Pensemos retrospectivamente: “The Life of Diane”**

Diane ha logrado muchas cosas a lo largo de su vida. Algunos eventos en su vida se traslapan con otros al haber ocurrido simultáneamente; otros sucedieron sólo una vez y otros permanecen en su vida hasta el día de hoy.
¿Qué eventos ocurrieron exactamente en el pasado, y cuáles siguen vigentes hasta hoy?

a) It’s 1974. For how long has Diane been living in Chicago?
   Diane has lived in Chicago for 18 years.

b) For how long did Diane attend the University of Chicago?
   She attended the University of Chicago for four years.

c) What was Diane doing during 1978?
   During 1978 she was studying at the University of Chicago and also serving at the U.S. Peace Corps in Thailand.

d) What major events occurred during 1983 and 1984?
   During 1983 she got married and in 1984 she had a son.

e) Since when has Diane had a PhD?
   She has had a PhD since 1989.

Describiendo las actividades mensuales de Jill

During the month of January, Jill is very busy. She goes to class every weekday (except when holidays) and studies on the weekends too. She has tests once a week on Fridays. These days she is also working. She works on Monday, Wednesday, and Friday evenings after school. She is not working this evening (Wednesday), thought, because she is not feeling well. She has been sick since Monday. She has missed school and work for two days...

El calendario de actividades de Jill’s

Estas son las actividades de Jill para el mes de enero; chécalas cuidadosamente para que puedas describirlas como transcurren sus actividades mensuales.

Auto-reflexión

• Ahora es momento de que reflexiones con respecto a las diapositivas que has estado viendo.

• ¿QUÉ ENTIENDES con respecto a los nuevos conceptos de tiempo y aspecto que has repasado?

• Piensa al respecto y has tus propias conclusiones; ¿qué conclusión llegaste con respecto a tiempo y aspecto en inglés?
Ahora vamos a hacer algunos ejercicios utilizando los aspectos: simple, progresivo y perfecto. (ANSWER IN ENGLISH)

- These are my grandparents. 
  - They (live) in Spain, in the past __________ also 
  - (stay) in Mexico for a period of time. At that moment 
  - (stay) at my parents’ house in London 
  - ____________ (to be) together for more than 50 years.

- This is my niece Christine. 
  - ___________ (study) the primary school ______ (like) 
  - History a lot and ______ also ______ (love) to write stories. Last year 
  - ___________ (win) a contest of fairy tales writing in her town 
  - (went) to become a famous writer when she grows up that is why ___________ (start) to write her own stories

- This is my nephew Erick. 
  - ______ (love) music a lot, ______ already ______ (take) music lessons at the Conservatory of Music in London. At the age of twelve 
  - ______ (give) a concert of Spanish guitar! 
  - Last year ______ (win) a child talent music contest.

Qué eventos ocurrieron exactamente en el pasado, y cuáles siguen vigentes hasta hoy? (ANSWER IN ENGLISH)

a) Where were you born and where have you lived?

b) What were you doing between the ages of 8-13?

c) What were you doing during your teenage years?

d) What major events occurred during high school and university?

e) What other major events in your life can you remember?

Tu vida, tu línea del tiempo
¿Nos puedes compartir algunos de los eventos más trascendentales en tu vida? Aquí te damos algunas ideas. Escribe tus momentos más importantes. (ANSWER IN ENGLISH)

Tu calendario de actividades
Rellena el calendario del mes de enero conforme a tus actividades diarias (si gustas puedes cambiar de mes). (ANSWER IN ENGLISH)
Describe tus actividades del mes

(ANSWER IN ENGLISH)

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Pasado simple vs. Presente Perfecto “ENTREVISTA DE TRABAJO”

Estás a punto de realizar una entrevista de trabajo para la posición de acompañante de infantes para una aerolínea. Por favor, danos tus respuestas (o más detalladamente posible) utilizando el pasado simple, el pasado y el presente perfecto en donde se requiera. (ANSWER IN ENGLISH)

- Have you ever dealt with children?
- When was your first experience with children? (if you have had one please provide details)
- Have you ever travelled with children? (if yes, please provide details)
- Have you ever experienced a difficult/emergency situation with children? (if yes, please provide details)
- What do you think is a good way to keep children calm and amused?

Compara y contrasta

Mira a los ejemplos, ¿puedes encadenar? Puedes identificar las tiempos gramaticales que utilizan? ¿Cuál crees que sea la diferencia principal entre ellos?

a) I have read the book / I have been reading the book
b) Stan sells vacuum cleaners / Stan is selling vacuum cleaners
c) Did you go to Yankee Stadium / Have you gone to Yankee Stadium?
d) They went on vacation / They have gone on vacation
e) We are watching movies / We watch the movies

Entendiste los conceptos de tiempo and aspecto?

- Si tuvieras que explicar a un compañero de clase o a otra persona para que entendiera la diferencia entre estos dos conceptos (tiempo y aspecto) ¿cómo lo harías? ¿qué les dirías?
- Con la ayuda de tu compañero, puedes pensar en una pequeña lección de cómo enseñar tiempo y aspecto?

Thank you !!!
Appendix 12. Oxford Placement Test Answer Key

The theoretical introduction research background and validation of the Oxford Placement Tests

A Oxford Placement Test (OPT) is a highly economical and easy-to-administer objective test, which provides consistently meaningful scores from Level A1 upwards. It includes a unique listening test, which can be attempted by students of any age and is a sensitive and reliable measure of a number of important components of communicative competence, both knowledge and interaction. All the items in the testing were derived from authentic situations and initially tested on groups of native speakers. Only those items which were consistently answered correctly by the trial groups of native speakers were included in the bank of items from which the final version for each Listening Test was drawn.

If any parts of the test the lexicon has been carefully controlled. Vocabulary is inevitably and intentionally tested within the test, but the aim throughout has been to ensure that the testee would not know of its existence.

Example answer key for the listening test:

**Listening Test**


**Grammar Test**


Example answer key for the grammar test:
### Appendix 13. Awareness Interview Example

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What do you know about the past tense in English?</td>
<td>it describes past actions, it requires special conjugation of the verbs, we have regular which end in ‘ed’ and irregular verbs which doesn’t follow a strict form</td>
<td>Definitely the past tense is related to all actions that happened in the past; it uses the conjugations in the verbs regular ‘ed’ and irregular that change their form.</td>
</tr>
<tr>
<td>2. Do you know the difference between tense and aspect in English?</td>
<td>I don’t know</td>
<td>The tense and the aspect are two different things but they complement with each other. Tense refers to when the action happens; it can be present, past or future. And the aspect is more about how that action happened, like how we perceive that action, like something that was happening or like something that happened and finished in a very specific moment; that is why the aspect can be progressive with the use of the verbs in gerund) or simple with the verb in past tense, or participle for example.</td>
</tr>
<tr>
<td>3. If you were to teach someone the concept of tense and aspect in English, how would you do it pedagogically?</td>
<td>I will start by showing the difference between the verbs in present and the verbs in past explaining how do we use the past with Spanish examples and then translating them into English, ahhm comparing tenses, we’ve got to start from a point so we can start from the present structure and then we go to the past structure so we learn a little verbs and then we learn how to make sentences with those verbs, then I will try to give them some examples of it for them to describe me later about their past events; the last holiday, what did you do last week, last night; some examples like that.</td>
<td>I will first give them some examples of my own life; like telling them a story of my and make them think of it. Then I will write on the board the sentences of my own story and ask them to identify what do they see new in the grammatical form of the verbs for example. Once they have identify that the verbs are a bit different from the present tense I will explain the that that form is the past tense and that for the past tense there are regular and irregular verbs and also aspects like progressive or perfect. then I will give them a list of the verbs and ask them to work in pairs some examples.</td>
</tr>
</tbody>
</table>
## Appendix 14. Communicated Thinking working with SCOBAs

EXP 9 sem + BELEM & Shirley + COMMUNICATED THINKING (SCOBAS)

<table>
<thead>
<tr>
<th>speaker</th>
<th>LANGUAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alejandri</td>
<td>Ok (…) lets see… do you understand what is this about?… Let’s see… (reading quietly)</td>
</tr>
<tr>
<td>Shirley</td>
<td>Ok, let’s go slowly so we can read them one by one… ahh…. it’s about time and aspect in English… do you know what is aspect? I couldn’t answer that question when we were asked about it the other day… I didn’t know what to say… I don’t remember it… maybe one day I was taught it but I don’t remember anything about it…</td>
</tr>
<tr>
<td>Alejandri</td>
<td>Yes… it’s about tense and aspect…</td>
</tr>
<tr>
<td>Shirley</td>
<td>Yes… it’s how we can understand better how tense and aspect work together…</td>
</tr>
<tr>
<td>Alejandri</td>
<td>Yes… I have never seen it explained in this form… I hope now I understand it! I am glad I wasn’t evaluated about it jajajaja</td>
</tr>
<tr>
<td>Shirley</td>
<td>Yes… I don’t think anyone knows anything about aspect… (reading quietly)</td>
</tr>
<tr>
<td>Alejandri</td>
<td>Ahh… (reading quietly)now that I see the explanation like is clearer… do you see what it is about, do you? You see? It says aspect is different to tense because we see things how they happened, like the perspective from outside, like from a window, you see, it’s like you see how things happen, that is what it says here… well, that is what I understand they are saying here… (reading quietly)</td>
</tr>
<tr>
<td>Shirley</td>
<td>So then… (reading quietly)… so then… time and aspect are not the same thing?</td>
</tr>
<tr>
<td>Alejandri</td>
<td>Look… (reading quietly) …It says… it says.. that situations can be events and states… did you know this? I didn’t … first time I see it like this… I have never think about it… I only thought verbs indicated actions and that’s it… never thought of verbs like marking events and states… you don’t reflect on those things … in the grammatical rules we don’t see that…I only learned the structures, how to form the grammatical tenses…</td>
</tr>
<tr>
<td>Shirley</td>
<td>Yes… I only know the grammar rules, like the forms, that is how I know it… so, aspect is part of the tense? (reading quietly) …the aspect is like explaining how the verb works, how the aspect how we see the action… (reading quietly) Because that is what is explained in the pictures… look at the pictures, the lines have like a limit like if the event is stopped… maybe is about that… that is an state…</td>
</tr>
<tr>
<td>Alejandri</td>
<td>Mmhhh (reading quietly)… yes… is like explaining how the action happened… And you see the pointed circle is like circling the event… maybe that is what they refer to about events having a limit or being permanent… do you understand it like I do? Or maybe I am understanding another thing? I have never seen this before, I mean, the verbs and the aspect explained like this… but it’s clear… that is how I see it… are you understanding what it says?</td>
</tr>
<tr>
<td>Shirley</td>
<td>No, I haven’t seen it like this, yes, I understand it …</td>
</tr>
</tbody>
</table>

241
<table>
<thead>
<tr>
<th>Page</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>242</td>
<td>I see it like you… (reading quietly) it’s clear in the picture… look at it… it says clearly… when the event has no internal change then the diagram is closed, that means that the event static… I guess, well I see it like that…</td>
</tr>
<tr>
<td>59</td>
<td>Yes… it could be like that… why not? I think so… (reading quietly)</td>
</tr>
<tr>
<td>132</td>
<td>See the verbs express events and states… (reading quietly)</td>
</tr>
<tr>
<td>61</td>
<td>Ok… if they are events then they are like activity that’s why it says events are dynamic… and states don’t change… what do you think? With the pictures it’s clear to understand… you see? Event, durative like read a book, like sing a song I guess, right?</td>
</tr>
<tr>
<td>66</td>
<td>Yes, (reading quietly) that’s what it says here… events can last …and states can be permanent like be European, be Mexican… is like that? Yes?</td>
</tr>
<tr>
<td>68</td>
<td>Well if it is a state is the ´state´ in which you are; can we say ´my state is to be in love´?</td>
</tr>
<tr>
<td>69</td>
<td>Yes… it could be like that… why not? I think so… (reading quietly)</td>
</tr>
<tr>
<td>70</td>
<td>I don’t have boyfriend now jajajajaj only used the example</td>
</tr>
<tr>
<td>71</td>
<td>Jajajajaj I don’t either jajajaja</td>
</tr>
<tr>
<td>72</td>
<td>Ok… let’s continue… how much time do we have left?</td>
</tr>
<tr>
<td>73</td>
<td>Like 15 minutes…</td>
</tr>
<tr>
<td>74</td>
<td>Ahh ok ok…</td>
</tr>
<tr>
<td>75</td>
<td>Ok… let’s continue… (reading quietly) we almost finish…</td>
</tr>
<tr>
<td>76</td>
<td>Yes… a few more…</td>
</tr>
<tr>
<td>77</td>
<td>The tenses… ok I know this…. Simple past, progressive, perfect…. mmmmhhhh</td>
</tr>
<tr>
<td>78</td>
<td>(reading quietly)… Ahh ok I see… ok… look… this is about we see the difference between tense and aspect. aspect is more… is more of the perspective vision of the verbs but we give the perspective with the form of the verb…</td>
</tr>
<tr>
<td>82</td>
<td>With the form of the verb? You mean if it is ing or simple past? Right?</td>
</tr>
<tr>
<td>83</td>
<td>Well, that’s what I understand… that’s what it says… look, it says it here… I think is about that (reading quietly)that’s what it says here… look at the images…</td>
</tr>
<tr>
<td>85</td>
<td>Yes… all the slides say that… yes… tense is the time like present, past, future</td>
</tr>
<tr>
<td>86</td>
<td>Yes… tense is the time and aspect says the perspective; so we can have present or past with progressive that refers to events that were happening…</td>
</tr>
<tr>
<td>88</td>
<td>Aha… aha… (reading quietly)</td>
</tr>
<tr>
<td>89</td>
<td>What is this ´zoom´ thing?</td>
</tr>
<tr>
<td>90</td>
<td>’Zoom in’ it says… I guess is that …(reading quietly)is like a close look at what happened… like in the cameras! When you make ‘zoom’ is because you are getting closer the view…</td>
</tr>
<tr>
<td>93</td>
<td>That is what it looks like…</td>
</tr>
<tr>
<td>94</td>
<td>(reading quietly) “the previous slides showed some diagrams… before you proceed could you explain which terms and notions would you associate with which diagrams and why? You can use the letters and numbers to find the pairs”… do we have to answer this? …” Let’s do this ones to see if we can answer correctly</td>
</tr>
<tr>
<td>99</td>
<td>If it is asking, I guess so Aahhh… let’s see if we can (reading quietly)mmhhhh A is 2 … I guess… I am not sure… but look… you see the lines like zigzag, I understand for that a progressive thing… don’t you think so? And B is 4 because is restricted perspective… what do you think?</td>
</tr>
<tr>
<td>104</td>
<td>Mmhhhh (reading quietly) I think you answered it ok… so ok… let’s see now me… ok… C is 3 then?? Look at the picture, maximum perspective with no limits and the last one has to be 1; do you agree?</td>
</tr>
<tr>
<td>108</td>
<td>I guess so… (reading quietly)I think so… let´s look for the answer to see if we did it right…</td>
</tr>
<tr>
<td>110</td>
<td>Aahhh no jajajaja we fail! Jajajajaj that´s means we don´t learn it yet! Jajajaja</td>
</tr>
<tr>
<td>11</td>
<td>It is only one Lesson ! the first time we see it! I think two good answers is good! jajajajaja</td>
</tr>
</tbody>
</table>

242
<table>
<thead>
<tr>
<th>Shirley</th>
<th>113</th>
<th>Mmmhh… mmmhhhh (reading quietly)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alejandro</td>
<td>114</td>
<td>The time… like this doll is showing yes… present… past… future… (reading quietly) experience…</td>
</tr>
<tr>
<td>Shirley</td>
<td>116</td>
<td>Experience ‘memorable events’ … ok ok</td>
</tr>
<tr>
<td>Alejandro</td>
<td>117</td>
<td>Ok… in the past… (reading quietly)… so if you climbed the Everest is memorable… I see… so if you continue doing something for a long time like working for the university that is continuity… mmmhh (reading quietly)</td>
</tr>
<tr>
<td>Shirley</td>
<td>121</td>
<td>Aha, ok this is clear… about the tenses how we use them, that I understand very clear… and now the aspect thing is clearer… I didn´t have any idea about it! (reading quietly)</td>
</tr>
<tr>
<td>Alejandro</td>
<td>124</td>
<td>Haa… me neither… I didn´t know what was aspect was…! We finished now…</td>
</tr>
<tr>
<td>Shirley</td>
<td>126</td>
<td>There isn´t more?</td>
</tr>
<tr>
<td>Alejandro</td>
<td>127</td>
<td>no</td>
</tr>
<tr>
<td>Shirley</td>
<td>128</td>
<td>ok</td>
</tr>
<tr>
<td>Alejandro</td>
<td>129</td>
<td>What do we do now? Do we close the file?</td>
</tr>
<tr>
<td>Shirley</td>
<td>130</td>
<td>Let´s ask the teacher…</td>
</tr>
<tr>
<td>Speaker</td>
<td>Line(s)</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Bryan</td>
<td>1 2</td>
<td>This is… (reading quietly)… the system of tense and aspect in English… have you seen it explained in this format?</td>
</tr>
<tr>
<td>Oscar</td>
<td>3 4 5</td>
<td>(reading quietly)… no but I see is about tense right? and the aspect thing, aspect… I don’t remember that… that is what we were asked for, right?</td>
</tr>
<tr>
<td>Bryan</td>
<td>6 7 8 9</td>
<td>Yes, it looks like those are the two things these slides talk about… it says so here… look… (reading quietly)… to describe the particular vision/perception of an aspectual situation… (reading quietly)… and place or find situations in time through a grammatical tense… ohh ok…</td>
</tr>
<tr>
<td>Oscar</td>
<td>10 11</td>
<td>(reading quietly) tense-aspect… tools that allow people to place an event or situation in time</td>
</tr>
<tr>
<td>Bryan</td>
<td>12</td>
<td>(reading quietly)… yes… that it seems to say… from what I am understanding here… that these two things give us details of the situation we are watching…</td>
</tr>
<tr>
<td>Oscar</td>
<td>13</td>
<td>So are they the same?</td>
</tr>
<tr>
<td>Bryan</td>
<td>14</td>
<td>Not exactly… (reading quietly)… it explains it better here… grammatical markers of the past, progressive, perfect are to locate in time… and emphasize the perspective… (reading quietly)… this issue looks a bit more complex… let’s see…</td>
</tr>
<tr>
<td>Oscar</td>
<td>15 16 17</td>
<td>Tense is clear to me… but aspect is the one I see more about how we perceive things?</td>
</tr>
<tr>
<td>Bryan</td>
<td>18</td>
<td>(reading quietly)… exactly… that’s it… it is clear here… I’m understanding now… you see?</td>
</tr>
<tr>
<td>Oscar</td>
<td>19 20</td>
<td>Yes… in the slide says that verbs have to do with events like making something ‘build a house’ and states just like the verb ‘to be’ to be… be happy…</td>
</tr>
<tr>
<td>Bryan</td>
<td>21</td>
<td>(reading quietly)… so if it is a verb indicating that we are doing something physical or material then is it an event? Or how is it?</td>
</tr>
<tr>
<td>Oscar</td>
<td>22 23</td>
<td>Mmmhh… events and states… here it gives some examples… ok</td>
</tr>
<tr>
<td>Bryan</td>
<td>24 25</td>
<td>(reading quietly)… that’s what it seems like; look at the verbs it’s giving as examples: read a book, build a house, grow plants, knock a door, realize something… that is different to a state that is something like more personal… don’t you think so?</td>
</tr>
<tr>
<td>Oscar</td>
<td>26 27 28</td>
<td>That is what I was thinking…</td>
</tr>
<tr>
<td>Bryan</td>
<td>29 30 31 32 33</td>
<td>(reading quietly)… describing situations… upss this looks more complex… it says events and states can be durative and punctual and transitory and permanent… let’s see… let me check… (reading quietly)… ok ahh (reading quietly) ok it makes sense like this…look… follow the examples…</td>
</tr>
<tr>
<td>Oscar</td>
<td>34 35</td>
<td>(reading quietly)… mmmhhhh that durative and transitory thing is what makes me confused…</td>
</tr>
<tr>
<td>Bryan</td>
<td>36 37</td>
<td>But is clear… transitory is something that is temporal… permanent something that is forever…</td>
</tr>
<tr>
<td>Oscar</td>
<td>38</td>
<td>Well… if it is like that as you are explaining it to me now it starts making sense to me…</td>
</tr>
<tr>
<td>Bryan</td>
<td>39 40</td>
<td>(reading quietly)… the system tense/aspect… (reading quietly)</td>
</tr>
<tr>
<td>Oscar</td>
<td>41 42</td>
<td>Hey… have you seen those markers of tense of states existential? What is that? I have never seen it like that; it is the past tense, isn’t?</td>
</tr>
<tr>
<td>Bryan</td>
<td>43 44 45</td>
<td>(reading quietly)… it seems that it is explaining how the past tense is formed… like if the past tenses were unreal… like if they did not exist anymore… is kind of obvious isn’t it? But when we speak it we don’t think about it like that… isn’t it?</td>
</tr>
</tbody>
</table>
Yes… it’s true… we speak and we do not realize that it is about something that does not exist anymore… like it says it here…

You see that of Reading a book? Inherent limits… sure… reading a book has a beginning and an end… we don’t read a book 24 hours throughout your life…

That’s it… the verb itself indicates that it is an action that finishes at some point… ahh that is why they put it inside the circle, isn’t it?

You see that of Reading a book? Inherent limits… sure… reading a book has a beginning and an end… we don’t read a book 24 hours throughout your life…

Ok… yes… so the maximum perspective is within the framework but it doesn’t go out of it, isn’t it?

Have you seen the one on restricted perspective? Or progressive aspect?

So if it is progressive it doesn’t have limits, right?

Aha… yes (reading quietly)) knock the door… check it out what it says: maximum perspective framework, the situation is perceived in its totality… that means that the action does not tell you exactly if it finished or started… it only tells you it happened… you see?

(real… without limits… so then situations can be seen like that… isn’t it?

Yes… look at the dolls… non progressive aspect says it’s a situation without limits, habitual, permanent, I suppose it’s something that does not have an ending point… it’s something that happens and it does not say when it ends… well that is what I think so…

Progressive aspect says “my sister is currently working for the university” (reading quietly)… it says ‘we impose’ limits, and look at the framework, it looks as if it was encapsulated in a given point in time, isn’t?

Yes… look at the heads, it says there that when we make ‘zoom’ we impose limits… (reading quietly)

Yes

We have to answer this…

Mmhhh ok… (reading quietly)

Did you ‘nail’ the answers?...

… just one

I was only able to ‘nail’ two… number 1 and 4 were ok… I think I have to study this more… hahaha

I also need to have a review of this if I want to understand it well…

(reading quietly)...mhhhh perspective of direction… ok…aja

(reading quietly)...present perfect...

(reading quietly)... that is how we understand the present perfect and the past perfect isn’t it?

Like something that started in the past and continues in the present...

Yes… look at the doll it is in the present time but it is looking at the past...

Yes… that is to look retrospectively...

Did you see? It says that if we want to be polite we can use the simple past! I didn’t know that!!

This is over… what do we do now?

I guess to inform that we have finished…