2-2013

Concept-Based Teaching and Spanish Modality in Heritage Language Learners: A Vygotskyan Approach

Elena Guillermín García Frazier

University of Massachusetts - Amherst

Follow this and additional works at: http://scholarworks.umass.edu/open_access_dissertations

Part of the Latin American Literature Commons, Spanish Linguistics Commons, and the Spanish Literature Commons

Recommended Citation
http://scholarworks.umass.edu/open_access_dissertations/686

This Open Access Dissertation is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
CONCEPT-BASED TEACHING AND SPANISH MODALITY IN HERITAGE LANGUAGE LEARNERS: A VYGOTSKYAN APPROACH

A Dissertation Presented

by

ELENA GARCÍA FRAZIER

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY

February 2013

Hispanic Literatures and Linguistics
CONCEPT-BASED TEACHING AND SPANISH MODALITY IN HERITAGE LANGUAGE LEARNERS: A VYGOTSKYAN APPROACH

A Dissertation Presented

By

ELENA GARCÍA FRAZIER

Approved as to style and content by:

Eduardo Negueruela, Co-chair

Patricia Gubitosi, Co-chair

Theresa Austin, Member

Barbara Zecchi
Program Director
Hispanic Literatures and Linguistics

William Moebius
Chair
Department of Languages, Literatures and Cultures
DEDICATION

To my husband David and my sons David and Diego
ACKNOWLEDGMENTS

I would like to extend my appreciation to professor Eduardo Negueruela, who introduced me to Vygotsky’s Sociocultural theory, and encouraged me to find and pursue one of my greatest research interests. I also want to thank professor Patricia Gubitosi, for her advice and useful feedback. Also, many thanks to professor Theresa Austin for her availability, encouragement and insightful guidance.

Without the love, encouragement and help of my husband David I would not have been able to finish this project. I would also like to extend my gratitude to my family and friends for their love and support.
ABSTRACT

CONCEPT-BASED TEACHING AND SPANISH MODALITY IN HERITAGE LANGUAGE LEARNERS: A VYGOTSKYAN APPROACH

FEBRUARY 2013

ELENA GARCÍA FRAZIER, B.A., UNIVERSIDAD AUTÓNOMA DE GUADALAJARA
M.Ed., BOSTON COLLEGE
Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Eduardo Negueruela and Professor Patricia Gubitosi

This study analyzed how six Heritage language learners at the university level gained conscious awareness and control of the concept of modality as revealed in student verbalizations (Vygotsky, 1998) throughout five different written communicative events. This work took place in the only course designed for Heritage language learners at a large public suburban university in the Northeast part of the United States.

Grammatical simplification in bilingual speakers is due to incomplete acquisition of Spanish, attrition or loss of an underused linguistic system (Lynch, 1999; Martínez Mira, 2009a, 2009b; Mikulski, 2010b; Montrul, 2007; Ocampo, 1990; Silva-Corvalán, 1990, 1994a, 1994b, 2003; Studerus, 1995). The result of the process of simplification is reduction or loss of forms and/or meanings.

In this work, I investigated in which ways Gal’perin’s (1989) systemic-theoretical organized instruction promoted awareness, control and internalization of the concept of
modality in three sets of data: definition, discourse and verbalization (Negueruel, 2003). In addition, I examined how the concept of modality emerged and proceeded.

By focusing students’ attention in Negueruela’s (2003) Concept of Mood in Spanish orienting chart in a top down fashion, students were able to strengthen their theoretical understanding in practical activity while still accessing empirical knowledge, and eventually generalizing its use in new contexts across nominal, adjectival and adverbial clauses.

At the definition level, Gal’perin’s Systemic-theoretical instruction promoted emergence and progress of their conceptual understanding from perceptual to semantic. At the discourse level, students’ theoretically based semantic understanding had a positive impact as revealed in student’s discourse progress throughout tasks. At the verbalization level, semantic, abstract and systematic verbalizations showed students’ emergence of awareness of the interrelated categories of modality. The conceptual category of anticipation was appropriately verbalized and contextualized 68% of the time. The absence of quality verbalizations referring to a specific conceptual category in some students lead me to conclude that students did not fully understand the meaning of some conceptual categories. On the contrary, their presence in any of the tasks showed emergence of conceptual meaning(s) in appropriate contexts, further appropriate recontextualization may provide full awareness and control.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACKNOWLEDGMENTS</td>
<td>vi</td>
</tr>
<tr>
<td></td>
<td>ABSTRACT</td>
<td>vi</td>
</tr>
<tr>
<td></td>
<td>LIST OF TABLES</td>
<td>xiv</td>
</tr>
<tr>
<td></td>
<td>LIST OF FIGURES</td>
<td>xvii</td>
</tr>
<tr>
<td>1.</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1</td>
<td>Purpose statement</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Heritage Language Learners’ Characteristics and Instructional Needs</td>
<td>1</td>
</tr>
<tr>
<td>1.3</td>
<td>The Spanish Subjunctive</td>
<td>6</td>
</tr>
<tr>
<td>1.4</td>
<td>Research on Pedagogical Grammar in the Heritage Language Classroom</td>
<td>7</td>
</tr>
<tr>
<td>1.5</td>
<td>Systemic-Theoretical Instruction</td>
<td>9</td>
</tr>
<tr>
<td>1.6</td>
<td>Research Guiding Questions</td>
<td>10</td>
</tr>
<tr>
<td>1.7</td>
<td>Organization of this Dissertation</td>
<td>11</td>
</tr>
<tr>
<td>2.</td>
<td>THE SPANISH SUBJUNCTIVE</td>
<td>12</td>
</tr>
<tr>
<td>2.1</td>
<td>Introduction</td>
<td>12</td>
</tr>
<tr>
<td>2.2</td>
<td>The subjunctive mood in second language learners</td>
<td>13</td>
</tr>
<tr>
<td>2.3</td>
<td>Spanish modality in monolingual and bilingual children</td>
<td>26</td>
</tr>
<tr>
<td>2.4</td>
<td>The subjunctive mood in adult monolingual and bilingual speakers</td>
<td>32</td>
</tr>
<tr>
<td>2.5</td>
<td>The subjunctive mood in research studies focusing on Heritage language learners</td>
<td>39</td>
</tr>
<tr>
<td>2.6</td>
<td>Conclusions</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>VYGOTSKY’S SOCIOCULTURAL THEORY OF MIND</td>
<td>52</td>
</tr>
<tr>
<td>3.1</td>
<td>Introduction</td>
<td>52</td>
</tr>
<tr>
<td>3.2</td>
<td>Theoretical framework: Sociocultural Theory</td>
<td>52</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Mediation</td>
<td>54</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Private Speech</td>
<td>55</td>
</tr>
</tbody>
</table>
4. METHODOLOGY .............................................................................................................85

4.1 Introduction ..................................................................................................................85
4.2 Heritage language learners: pedagogical considerations ...........................................85
4.3 Questions guiding this study .......................................................................................89
   4.3.1 First question ........................................................................................................89
   4.3.2 Second question ....................................................................................................90
   4.3.3 Research questions ..............................................................................................91
4.4 The course ....................................................................................................................92
4.5 Participants .................................................................................................................94
   4.5.1 Participant # 1 ......................................................................................................94
   4.5.2 Participant # 2 ......................................................................................................95
   4.5.3 Participant # 3 ......................................................................................................95
   4.5.4 Participant # 4 ......................................................................................................96
   4.5.5 Participant # 5 ......................................................................................................97
   4.5.6 Participant # 6 ......................................................................................................98
4.6 Data collection ............................................................................................................101
4.7 Data analysis procedures ...........................................................................................102
   4.7.1 Definition data ....................................................................................................105
   4.7.2 Written discourse data .......................................................................................106
   4.7.3 Verbalization data ...............................................................................................106
4.8 Conclusion ...................................................................................................................108

5. FINDINGS (1) ................................................................................................................110

5.1 Introduction ................................................................................................................110
5.2 Spanish verbal mood ..................................................................................................110
5.3 Pedagogical goal ........................................................................................................112
5.4 Data analysis procedure ............................................................................................114
5.5 Data analysis .............................................................................................................117
   5.5.1 Conceptual development in written definition: Participant #
         1 ..........................................................................................................................119
   5.5.2 Conceptual development in written definition: Participant #
         2 ..........................................................................................................................122
5.5.3 Conceptual development in written definition: Participant #
3..............................................................................................................124

5.5.4 Conceptual development in written definition: Participant #
4..............................................................................................................126

5.5.5 Conceptual development in written definition: Participant #
5..............................................................................................................128

5.5.6 Conceptual development in written definition: Participant #
6..............................................................................................................130

5.5.7 Comparison of essential features .............................................132
  5.5.7.1 Comparison of essential features in theoretical
  concepts.............................................................................................133

5.6 Conclusion ..................................................................................134

6. FINDINGS (2) ................................................................................136

6.1 Introduction ................................................................................136

6.2 Data analysis procedure .............................................................136

6.3 Data analysis ..............................................................................138
  6.3.1 Participant # 1 ..........................................................139
    6.3.1.1 Participant # 1. Task: D...................................................139
    6.3.1.2 Participant # 1. Task: T1...................................................140
    6.3.1.3 Participant # 1. Task: T2...................................................142
    6.3.1.4 Participant # 1. Task: T3...................................................143
    6.3.1.5 Participant # 1. Task: T4...................................................145
    6.3.1.6 Participant # 1. Task: Ex.................................................146
    6.3.1.7 Participant # 1. Overall appropriate use of
    subjunctive and indicative..........................................................148

6.3.2 Participant # 2 ..........................................................149
  6.3.2.1 Participant # 2. Task: D.....................................................149
  6.3.2.2 Participant # 2. Task: T1.....................................................150
  6.3.2.3 Participant # 2. Task: T2.....................................................151
  6.3.2.4 Participant # 2. Task: T3.....................................................152
  6.3.2.5 Participant # 2. Task: T4.....................................................154
  6.3.2.6 Participant # 2. Task: Ex.....................................................155
  6.3.2.7 Participant # 2. Overall appropriate use of
  subjunctive and indicative..........................................................157

6.3.3 Participant # 3 ..........................................................158
  6.3.3.1 Participant # 3. Task: D.....................................................158
  6.3.3.2 Participant # 3. Task: T1.....................................................159
  6.3.3.3 Participant # 3. Task: T2.....................................................160
  6.3.3.4 Participant # 3. Task: T3.....................................................162
  6.3.3.5 Participant # 3. Task: T4.....................................................164
  6.3.3.6 Participant # 3. Task: Ex.....................................................165
  6.3.3.7 Participant # 3. Overall appropriate use of
  subjunctive and indicative..........................................................167
6.3.4 Participant # 4. .................................................................................. 168
  6.3.4.1 Participant # 4. Task: D. ................................................................. 168
  6.3.4.2 Participant # 4. Task: T1. ................................................................. 169
  6.3.4.3 Participant # 4. Task: T2. ................................................................. 169
  6.3.4.4 Participant # 4. Task: T3. ................................................................. 170
  6.3.4.5 Participant # 4. Task: T4. ................................................................. 171
  6.3.4.6 Participant # 4. Task: Ex. ................................................................. 172
  6.3.4.7 Participant # 4. Overall appropriate use of subjunctive and indicative .................................................................................. 173
6.3.5 Participant # 5 .................................................................................. 174
  6.3.5.1 Participant # 5. Task: D. ................................................................. 174
  6.3.5.2 Participant # 5. Task: T1. ................................................................. 175
  6.3.5.3 Participant # 5. Task: T2. ................................................................. 176
  6.3.5.4 Participant # 5. Task: T3. ................................................................. 178
  6.3.5.5 Participant # 5. Task: T4. ................................................................. 179
  6.3.5.6 Participant # 5. Task: Ex. ................................................................. 181
  6.3.5.7 Participant # 5. Overall appropriate use of subjunctive and indicative .................................................................................. 182
6.3.6 Participant # 6 .................................................................................. 183
  6.3.6.1 Participant # 6. Task: D. ................................................................. 183
  6.3.6.2 Participant # 6. Task: T1. ................................................................. 184
  6.3.6.3 Participant # 6. Task: T2. ................................................................. 186
  6.3.6.4 Participant # 6. Task: T3. ................................................................. 187
  6.3.6.5 Participant # 6. Task: T4. ................................................................. 191
  6.3.6.6 Participant # 6. Task: Ex. ................................................................. 193
  6.3.6.7 Participant # 6. Overall appropriate use of subjunctive and indicative .................................................................................. 194
6.3.7 Summary ......................................................................................... 195
6.4 Conclusion .......................................................................................... 197

7. FINDINGS (3) ......................................................................................... 200
  7.1 Introduction.......................................................................................... 200
  7.2 Data analysis procedure .................................................................... 200
    7.2.1 Mood morphology categorization from student identified complex sentences: Analysis procedure. ........................................ 202
    7.2.2 Student verbalizations in written tasks: Analysis procedure. ...... 203
    7.2.3 The tasks ....................................................................................... 204
    7.2.4 Participants analyzed in this chapter. ........................................... 206
  7.3 Data analysis ..................................................................................... 207
    7.3.1 Participant # 1 .............................................................................. 207
      7.3.1.1 Participant # 1. Discourse text and verbalizations in Task 1 .................................................................................. 207
      7.3.1.2 Participant # 1. Discourse text and verbalizations in Task 2 .................................................................................. 208
7.3.1.3 Participant # 1. Discourse text and verbalizations in Task 3 .................................................. 209
7.3.1.4 Participant # 1. Discourse text and verbalizations in Task 4 .................................................. 211
7.3.1.5 Participant # 1. Discourse text and verbalizations in Task Ex. ................................................. 213
7.3.1.6 Differences between production and verbalizations: Participant #1 ........................................... 213
7.3.1.7 Student verbalizations: Participant # 1. ......................... 214
7.3.1.8 Emergence and evolution of the concept of verbal mood: Participant # 1.................................. 216

7.3.2 Participant # 6 ............................................................................................................................... 218
7.3.2.1 Participant # 6. Discourse text and verbalizations in Task 1 .................................................... 219
7.3.2.2 Participant # 6. Discourse text and verbalizations in Task 2 .................................................... 221
7.3.2.3 Participant # 6. Discourse text and verbalizations in Task 3 .................................................... 221
7.3.2.4 Participant # 6. Discourse text and verbalizations in Task 4 .................................................... 226
7.3.2.5 Participant # 6. Discourse text and verbalizations in Task Ex. ................................................. 229
7.3.2.6 Differences between production and verbalizations: Participant #6 .......................................... 231
7.3.2.7 Student verbalizations: Participant # 6. ......................... 232
7.3.2.8 Emergence and evolution of the concept of verbal mood: Participant # 6.................................. 233

7.3.3 Participant # 2 ............................................................................................................................... 234
7.3.3.1 Participant # 2. Discourse text and verbalizations in Task 1 .................................................... 234
7.3.3.2 Participant # 2. Discourse text and verbalizations in Task 2 .................................................... 236
7.3.3.3 Participant # 2. Discourse text and verbalizations in Task 3 .................................................... 236
7.3.3.4 Participant # 2. Discourse text and verbalizations in Task 4 .................................................... 239
7.3.3.5 Participant # 2. Discourse text and verbalizations in Task Ex. ................................................. 240
7.3.3.6 Differences between production and verbalizations: Participant #2 .......................................... 243
7.3.3.7 Student verbalizations: Participant # 2. ......................... 244
7.3.3.8 Emergence and evolution of the concept of verbal mood: Participant # 2 .................................. 245

7.4 Summary tables .............................................................................................................................. 247
7.4.1 Group summary of verbalizations ................................................................. 247
7.4.2 Summary of conceptual categories across written tasks ............................... 249
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5 Discussion</td>
<td>251</td>
</tr>
<tr>
<td>7.6 Conclusion</td>
<td>253</td>
</tr>
<tr>
<td>8. CONCLUSIONS</td>
<td>255</td>
</tr>
<tr>
<td>8.1 Introduction</td>
<td>255</td>
</tr>
<tr>
<td>8.2 The study</td>
<td>255</td>
</tr>
<tr>
<td>8.3 Filling a gap</td>
<td>257</td>
</tr>
<tr>
<td>8.4 Findings</td>
<td>260</td>
</tr>
<tr>
<td>8.5 Contributions</td>
<td>263</td>
</tr>
<tr>
<td>8.6 Limitations of this study and future research</td>
<td>264</td>
</tr>
<tr>
<td>8.7 Conclusions</td>
<td>266</td>
</tr>
</tbody>
</table>

APPENDICES ................................................................................. 267

A. SYLLABUS ................................................................................. 268

B. INFORMED CONSENT FORM ...................................................... 274

C. TABLES OF MOOD MORPHOLOGY IN WRITTEN TASKS ........................... 276

D. FEATURES OF THEORETICAL CONCEPTS IN VERBALIZATIONS ................ 282

E. VERBALIZATION TABLES ................................................................ 283

F. TASK SAMPLE ............................................................................ 300

BIBLIOGRAPHY ............................................................................... 301
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Tables</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Framework of communicative modes</td>
<td>4</td>
</tr>
<tr>
<td>4.1 Summary of participants’ interest and reasons for studying Spanish</td>
<td>99</td>
</tr>
<tr>
<td>4.2 Summary of participants’ prior formal experiences</td>
<td>100</td>
</tr>
<tr>
<td>5.1 Theoretical concept and verbal mood</td>
<td>116</td>
</tr>
<tr>
<td>5.2 Conceptual development in participant # 1</td>
<td>119</td>
</tr>
<tr>
<td>5.3 Conceptual development in participant # 2</td>
<td>122</td>
</tr>
<tr>
<td>5.4 Conceptual development in participant # 3</td>
<td>124</td>
</tr>
<tr>
<td>5.5 Conceptual development in participant # 4</td>
<td>126</td>
</tr>
<tr>
<td>5.6 Conceptual development in participant # 5</td>
<td>128</td>
</tr>
<tr>
<td>5.7 Conceptual development in participant # 6</td>
<td>130</td>
</tr>
<tr>
<td>5.8 Essential features in theoretical concepts among participants</td>
<td>133</td>
</tr>
<tr>
<td>6.1 Mood morphology in written tasks for participant # 1</td>
<td>139</td>
</tr>
<tr>
<td>6.2 Distribution of subjunctive and indicative for participant # 1</td>
<td>148</td>
</tr>
<tr>
<td>6.3 Mood morphology in written tasks for participant # 2</td>
<td>149</td>
</tr>
<tr>
<td>6.4 Distribution of subjunctive and indicative for participant # 2</td>
<td>157</td>
</tr>
<tr>
<td>6.5 Mood morphology in written tasks for participant # 3</td>
<td>158</td>
</tr>
<tr>
<td>6.6 Distribution of subjunctive and indicative for participant # 3</td>
<td>167</td>
</tr>
<tr>
<td>6.7 Mood morphology in written tasks for participant # 4</td>
<td>168</td>
</tr>
<tr>
<td>6.8 Distribution of subjunctive and indicative for participant # 4</td>
<td>173</td>
</tr>
<tr>
<td>6.9 Mood morphology in written tasks for participant # 5</td>
<td>174</td>
</tr>
<tr>
<td>6.10 Distribution of subjunctive and indicative for participant # 5</td>
<td>182</td>
</tr>
</tbody>
</table>
6.11 Mood morphology in written tasks for participant # 6 ..............................................183
6.12 Distribution of subjunctive and indicative for participant # 6 .................................194
6.13 Group summary of mood morphology in written tasks ...........................................195
6.14 Group summary of type of clause used and appropriate use of subjunctive and indicative .................................................................................................................................196
6.15 Group summary of appropriate use of subjunctive and indicative ..........................196
6.16 Grouping according to amount of appropriate complex clauses produced ...........197

7.1 Mood morphology categorization from student identified complex sentences in participant # 1 ..................................................................................................................................................207
7.2 Student identified complex sentences and semantic, abstract and systematic verbalizations..............................................................................................................................................214
7.3 Categorization of verbalizations for participant # 1 ..................................................215
7.4 Appropriate use of subjunctive in semantic, abstract and systematic verbalizations for participant # 1........................................................................................................................216
7.5 Mood morphology categorization from student identified complex sentences in participant # 6 .................................................................................................................................................218
7.6 Student identified complex sentences and semantic, abstract and systematic verbalizations..............................................................................................................................................231
7.7 Categorization of verbalizations for participant # 6 ..................................................232
7.8 Appropriate use of subjunctive in semantic, abstract and systematic verbalizations for participant # 6........................................................................................................................233
7.9 Mood morphology categorization from student identified complex sentences in participant # 2 .................................................................................................................................................234
7.10 Student identified complex sentences and semantic, abstract and systematic verbalizations..............................................................................................................................................243
7.11 Categorization of verbalizations for participant # 2 ..................................................244
7.12 Appropriate use of subjunctive in semantic, abstract and systematic verbalizations for participant # 2 ........................................................................................................................245
7.13 Group distribution of verbalizations ........................................................................247
7.14 Group distribution of of interrelated conceptual categories ..................................249
7.15 Mode of verbalization provided.................................................................252
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>A Continuum of L1/L2 users</td>
<td>2</td>
</tr>
<tr>
<td>5.1</td>
<td>CONCEPT OF MOOD in Spanish – from Negueruela (2003)</td>
<td>113</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

1.1 Purpose statement

The purpose of this dissertation is to analyze how Heritage language learners at university level gain conscious awareness and control of the concept of modality and expand its use in academic writing. Following Vygotsky’s Theory of Mind (Vygotsky, 1986), I consider the learning and teaching of Spanish modality as a conceptual category to be internalized by students through organized tool-oriented concept-based teaching.

In the following sections, I first describe heritage language characteristics and instructional needs. I then proceed to describe the Spanish subjunctive. Then I mention a gap in research on pedagogical grammar (Negueruela, 2003) in the Heritage language classroom. The following section proposes Systemic-theoretical instruction as a quality theoretically sound instructional method that may help heritage language learners gain conscious awareness and control of Spanish modality. I then present the questions guiding this study, and conclude this chapter with information concerning the organization of this dissertation.

1.2 Heritage Language Learners’ Characteristics and Instructional Needs

In this project I am studying the development of Spanish mood in heritage learners of Spanish who are at different levels of the bilingual continuum. A Heritage speaker, as defined by Valdés (2000) “is raised in a home where a non-English language is spoken, who speaks or merely understands the heritage language, and who is to some degree bilingual in English and the heritage language” (Valdés, 2000, p. 1).
Bilingual users have different levels of functionality in each language. This is so as “L1/L2 users do not have the opportunity to use two-languages to carry out the exact same functions with all individuals with whom they interact or to use their languages intellectually to the same degree” (Valdés, 2005, p. 414). The difference in functions creates specific domains of language use, some more formal than others (school, home, friends, work, etc.). An important issue affecting language use domains is the fact that even though recent immigrants may attend a transitional bilingual program, the primary goal of these programs is mainstream English instruction. At which point, Spanish is not used as a cognitive tool in written and oral communication but rather a language mostly used in familial contexts. Individuals then fall into a bilingual continuum.

Figure 1, taken from Valdés (2005, 2001), is a representation of the linguistic development or attrition of any individual invested in two languages at different stages. As the contexts of use of language A keep expanding, that second language becomes stronger and the other way around. The two languages may meet at some point. However, balanced bilingualism is rarely achieved since each language is generally used for different purposes.

![Figure 1.1: A Continuum of L1/L2 users](image)

Another factor to consider with heritage language speakers is that they may speak different linguistic varieties, stigmatized or not, transmitted to them by their parents and/or community members. This may include the standard dialect from a metropolitan
area of a specific country, a regional variety from a specific urban area that is not near the
capital city of the country, and rural and/or archaic varieties of Spanish, among other
scenarios (Valdés, 1978).

Heritage speakers, who are able to develop and maintain their mother tongue at
home, will most likely need to learn and expand their use of registers in a variety of
contexts outside of the family domain. Access to academic literacy is necessary in order
to expand speakers’ discursive repertoire and learn other linguistic modes, genres and
registers as well as such features as elaborated lexicon, syntactic complexity, etc.

A responsive curriculum in a heritage language class offers an important bridge
between the linguistic practices carried out at home and theoretical-conceptual thinking
aimed at school. Developing communicative abilities that go beyond the interpersonal
mode, presented in the standards for foreign language learners, should be a focus of the
heritage language classroom in order to go beyond “prescriptive grammar, transfer of
skills, and basic language maintenance” (Valdés, 2001, p. 66).

In formal classroom settings, The Standards for Foreign Language Learning
(National Standards in Foreign Language Education Project, 1999) present five
interconnected goal areas: communication, cultures, connections, comparisons and
communities. Each of these areas has two or three content standards to be followed in
foreign language programs. Communication, “is at the heart of second language study”
(National Standards in Foreign Language Education Project, 1999, p. 31) and it includes
three different modes: 1- interpersonal, 2- interpretive, and 3- presentational.
Table 1.1: Framework of communicative modes

<table>
<thead>
<tr>
<th>INTERPERSONAL</th>
<th>INTERPRETIVE</th>
<th>PRESENTATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct oral communication (e.g., face-to-face or telephonic) between individuals who are in personal contact</td>
<td>Receptive communication of oral or written messages</td>
<td>Productive communication using oral or written language</td>
</tr>
<tr>
<td>Direct written communication between individuals who come into personal contact</td>
<td>Mediated communication via print and non-print materials</td>
<td>Spoken or written communication for people (an audience) with whom there is no immediate personal contact or which takes place in a one-to-many mode</td>
</tr>
<tr>
<td><strong>PATHS</strong></td>
<td><strong>PATHS</strong></td>
<td><strong>PATHS</strong></td>
</tr>
<tr>
<td>Productive abilities: speaking, writing</td>
<td>Primarily receptive abilities: listening, reading, viewing</td>
<td>Primarily productive abilities: speaking, writing, showing</td>
</tr>
<tr>
<td>Receptive abilities: listening, reading</td>
<td>Knowledge of cultural perspectives governing interactions between individuals of different ages, statuses, backgrounds</td>
<td>Knowledge of cultural perspectives are embedded in products (literary and artistic)</td>
</tr>
<tr>
<td>Ability to recognize that languages use different practices to communicate</td>
<td>Ability to analyze content, compare it to information available in own language and assess linguistic and cultural differences</td>
<td>Ability to present crosscultural information based on background of the audience</td>
</tr>
<tr>
<td>Ability to recognize that cultures use different patterns of interaction</td>
<td>Ability to analyze and compare content in one culture to interpret U.S. culture</td>
<td>Ability to recognize that cultures use different patterns of interaction</td>
</tr>
</tbody>
</table>

**KNOWLEDGE OF THE LINGUISTIC SYSTEM**

The use of grammatical, lexical, phonological, semantic, pragmatic, and discourse features necessary for participation in the Communicative Modes.

The focus on a range of communicative goals, although originally designed for the teaching of languages as a foreign language, can be applied in heritage language classrooms where the teaching objective is the expansion of communicative abilities (Valdés, 2001). While heritage speakers may possess some oral interpersonal abilities, these abilities need to be expanded to new contexts and purposes of communication. In particular and perhaps in contrast, heritage language classrooms must insure the
expansion of the interpretive and presentational communicative modes according to The Standards for Foreign Language Learning (National Standards in Foreign Language Education Project, 1999).

In the interpersonal mode, students communicate in oral and written form with “individuals who are in personal contact” (National Standards in Foreign Language Education Project, 1999, p. 37) and they can clarify if miscommunication occurs. However, in the interpretive and presentational modes of communication, students need to read and interpret meaning in texts with an absent author and to present and write information for a specific audience with no personal contact. Reading and writing require a high level of abstraction. This is exemplified in “speech that uses representations of words rather than words themselves” (Vygotsky, 1987, p. 202). In addition, written speech also requires the individual to communicate effectively with an audience that will not provide immediate feedback on the message conveyed (Colombi, 1997). This means that, in addition to the guidelines required by the genre being used, the writer needs to anticipate and answer his/her audience’s possible questions, use the appropriate register directed to unknown readers, and convey desired meanings through written text.

This study takes place in a heritage language classroom and focuses on the course’s teaching unit of modality. Specifically, this study examines how Concept-based teaching can promote awareness and control of the grammatical concept of modality, expressed through meanings conveyed in different written tasks, and lead development in heritage language learners. At the heart of this work is how the concept emerges and evolves in writing. Writing development and morphological accuracy are out of the focus of this study. In this work, I explore how teaching students through goal-oriented
theoretically sound and semantically based didactic material can help students develop conscious awareness and control of the meanings expressed through modality in Spanish.

1.3 The Spanish Subjunctive

The Spanish language verbal system consists of two different grammatical categories: indicative and subjunctive. The grammatical category of the subjunctive and indicative moods is represented by verb inflections but its semantic category represents differences in the intention and meaning of the speaker. The semantic category is expressed through the notion of modality (Palmer, 1986).

While the indicative is used in simple and subordinate clauses, the subjunctive is mostly found in subordinate clauses. The inflection of the verb in the complement clause is contingent upon the meaning expressed in the main clause. The indicative is commonly used in the complement clause when the main clause expresses the modalities of belief, evidence, inference, knowledge and report of a statement. The subjunctive is used in the complement clause when the main clause expresses the modalities of doubt/denial, evaluation, reaction, report of a command, and volition (Collentine, 1995, p. 124).

According to Collentine (2010), mood “is an inflectional representation of modality” (p. 40), and modality also includes lexical (i.e. *probablemente*) and morphological markings. The four aspects inherent to modality are subordination, meaning, verb inflections and lexical marking. Hence, the acquisition of Spanish mood entails the development of complex syntax such as subordinate clauses, morphological forms such as subjunctive verb inflections, and semantic-pragmatic modal meanings (Collentine, 2003). The present work is concerned with the development of modality
through verbal mood in written discourse with the aid of a conceptual learning aid in the form of a chart, based on STI principles, and private speech for self-regulation.

1.4 Research on Pedagogical Grammar in the Heritage Language Classroom

Despite the growing interest and research developments in the past 30 years on identifying the differences between heritage language learners and L2 learners, and recommendations for responsive curriculum design, there is still a lack of research on heritage language instruction, development and learning strategies. In her 1995 seminal article, Valdés drew attention to the need for a pedagogy that is informed by a language learning theory in applied linguistics (Valdés, 1995). Despite a considerable number of publications addressing pedagogical recommendations on curriculum design for the HL classroom based on learner characteristics, Valdés (1995) pointed out that “no attempts have been made to examine the implicit theories underlying existing instruction” (Valdés, 1995, p. 307).

More recently, at the center of future research recommendations, Lynch (2003) suggests exploring existing SLA pedagogical paradigms in the HL classroom. Furthering research on pedagogical approaches and heritage language development has become crucial in the heritage language field (Mikulski, 2010b).

Regarding the subjunctive mood and heritage language learners, researchers from different theoretical paradigms have been focusing on linguistics issues such as: the effects of processing instruction (Colletine, 1998; Farley, 2001; Potowski, Jegerski & Morgan-Short, 2009); knowledge of verb morphology and mood distinctions in variable contexts (Montrul, 2007); the use of subjunctive in adverbial clauses (Martínez Mira, 2005, 2009a, 2009b); and knowledge of subjunctive in volitional constructions (Mikulski,
As far as I can determine, past research has not concerned itself with pedagogical grammar or the quality of rules and their function, or verb categorization according to type of clause, in order to conceptualize and apply modality in appropriate contexts.

Publications that specifically address the teaching and development of modality in the heritage language classroom are scarce. A few publications focus on the importance of teaching the subjunctive mood for communication purposes at different stages of the writing process (Said-Mohand, 2005; Chevalier, 2004). The value that these studies posit on teaching grammar based on students’ functional discursive needs, while also teaching discourse practices in the form of genre is of great importance. This practice moves away from decontextualized fill-in-the-blank exercises that remove student agency and, in turn, create a task-based learning need. However, the main focus is on performance, and thus on the end product.

Despite a wealth of past research investigating Spanish modality and its connection to semantic concepts such as assertion, influence, anticipation, presupposition, belief, report and truth value (Bolinger, 1974, 1976, 1991; Lozano, 1972, 1975; Terrell and Hooper, 1974; Takagaki, 1984; Blake, 1985), and the advice for caution when teaching through syntactically based categorical rules to guide performance (Goldin, 1974), this is still part of mainstream teaching practices.

Focus on teaching and learning semantically based cognitive tools that move away from rules of thumb needs to be promoted in language classrooms. The major consequence of teaching and learning practices based on a system of rules is that promoting such cognitive processes results in the acquisition of a list of rules (Lantolf & Thorne, 2006). Heritage language learners would benefit from a pedagogical refocus
whose major goal would be to develop theoretically based grammatical concepts to be used as mediational cognitive tools.

1.5 Systemic-Theoretical Instruction

The instructional approach that I propose to be used in Heritage language classrooms is found in Systemic-Theoretical Instruction (STI), a tool-mediated teaching and learning approach based on Vygotskyan principles created by Gal’perin (1969, 1989, 1992). Following Gal’perin’s STI principles, Negueruela (2003) adapted and modified Gal’perin’s stepwise procedure (described in chapter 3) in order to implement STI in a foreign language classroom. The three main STI tenets followed by Negueruela (2003) are: finding a unit of instructions that provides a complete orientation for the subject matter, materialization of that unit of instruction through didactic aides, and using verbalizations for internalization purposes, STI aims at language learning through the use of grammar-based theoretical concepts that function as content and tools for thinking and self-regulation. By providing students with a learning tool to help internalize a sound and comprehensive theoretical concept, and having them explain to themselves the reasoning behind applying such concept when constructing meaning, the internalization of conceptual categories with communicative functionality develops (Negueruela, 2008).

Negueruela (2003) calls this instruction-leading-development approach Concept-based instruction (CBT). Concept-based instruction “supports explicit instruction in grammar to promote the learner’s awareness and control over specific conceptual categories as they are linked to formal properties on the language” (Negueruela & Lantolf, 2006). By organizing pedagogical sequences in a systematic form around a concept, and using highly theoretical teaching and learning devices containing conceptual
semantic categories in a dialectic form, as a teaching and learning device, students are oriented towards fundamental properties of the language while working on communicative tasks.

Research on pedagogical practices that coherently organize instruction around theoretically sound semantic concepts, such as modality or aspect, and its use as a dialectic cognitive tool has mainly focused on second language learners (Lapkin, Swain & Knouzi, 2008, Negueruela, 2003, 2008; Serrano-Lopez & Poehner, 2008). I am not aware of any studies investigating the development of modality, or any other language concept, through concept-based instruction in a heritage language classroom.

This dissertation intends to fill an existing gap in research on the development in Heritage language learners of Spanish mood and modality, in Heritage language classrooms, through a theory-based pedagogy informed by Vygotsky’s Theory of Mind.

1.6 Research Guiding Questions

By relating empirical language data to theoretical issues and Systemic-Theoretical Instruction to heritage language acquisition, this study further researches how formal instruction can help heritage language students gain conscious awareness and control of the concept of modality and expand its use in academic writing.

This project has two concrete objectives: I- to investigate in what ways does Gal’perin’s Systemic-Theoretical Instruction (STI) promote awareness, control and internalization of the concept of modality, as reflected in students’ course work’s research data (1- written definition, 2- written discourse, 3- verbalizations). II- to examine how the concept of modality emerges and proceeds as reflected in students’ written and verbalization data.
1. In what ways does Gal’perin’s Systemic-Theoretical Instruction (STI) promote awareness, control and internalization of the concept of modality in Heritage Language learners?

2. How does the concept of modality emerge and proceed in the learners under study as reflected in students written and verbalization data?

1.7 Organization of this Dissertation

In chapter 2, I review the literature studying the processes of acquisition, simplification and loss of the Spanish mood in young and adult monolingual and bilingual speakers. Chapter 3 discusses the theory of learning and development outlined in Vygotsky (1978) and describes relevant pedagogical proposals for the present study based on Sociocultural Theory. Chapter 4 presents the methodology of the study. Chapter 5 reports on students’ conceptual development of Spanish verbal mood in students’ definitions. Chapter 6 reports on students’ morphological development of Spanish verbal mood in students’ written discourse. Chapter 7 reports on students’ conceptual development of Spanish verbal mood in students’ verbalizations. Chapter 8 offers concluding remarks, explains limitations of the present study and suggest further research directions.
CHAPTER 2
THE SPANISH SUBJUNCTIVE

2.1 Introduction

The syntactic complexity of constructing subordinate sentences combined with mood and modality: intention, meaning and interpretation represented by the conjugation of the verb in the second clause, and their reduced contexts of use, corresponds to a point of interaction between syntax, morphology, semantics, and pragmatics. In the majority of instances, subjunctive modality is found in subordinate sentences: in nominal, adjectival and adverbial clauses where a different subject is generally used in each clause. The indicative, however, is used in both simple and subordinate clauses.

In a verb-form frequencies study of written Spanish, Bull et al. (1947) found 3764 present indicative forms and only 292 present subjunctive forms. However, despite its frequency of use, knowledge of Spanish mood and modality is relevant for second and Heritage language learners. As reported by Terrell, Baycroft and Perrone (1987), at the college level, during the first year of language study the entire Spanish grammar is introduced and then reviewed the second year. This way, second language students first learn the contexts of use that encompass less formal contexts and the more formal contexts are left for higher course levels. In less formal contexts subordination is needed when each clause has different subjects (e.g. necesito que me ayudes con la tarea). In more formal contexts, subordination is used as a writing strategy to persuade, build arguments and present coherent hypothesis (e.g. no me parece justo que haya tanta pobreza…) (American Council on the Teaching of Foreign Languages, 2001). The
Spanish subjunctive is one of the most challenging concepts for Spanish language learners and one of the main teaching/learning concerns of language instructors.

In the following paragraphs, I review research concerning the Spanish subjunctive. First I review the most relevant research concerning the Spanish subjunctive and foreign language learners. Next, I refer to existing sociolinguistic, linguistic and psycholinguistic research on the development of modality in monolingual and bilingual children. I then continue reviewing research on the Spanish subjunctive in adult monolingual and bilingual speakers in the United States. This will be followed by a review of literature of Spanish modality among heritage language learners.

This literature review will offer a panoramic overview of the relevant arguments concerning Spanish mood and modality taking place in the fields of Second Language Acquisition (SLA), Sociocultural Theory (SCT) in second language classrooms and Heritage Language Education (HLE).

2.2 The subjunctive mood in second language learners

More than thirty years ago, Terrell and Hooper (1974) were concerned with the syntactico-semantic prototype of the subjunctive. They claimed that syntactic categorizations of Spanish mood did not take into account the speaker and that it was critical to also focus on semantics and analyze meaning in speaker utterances. Drawn from their analysis, they presented a mood choice semantic classification of complements and matrixes. The semantic notions were: a) assertion, b) presupposition, and c) neither assertion nor presupposition. Within the semantic notion of assertion, there are two types of propositions: 1) assertion (Ind), and 2) report (Ind). The two types of propositions within the semantic notion of presupposition were: 3) mental act (Ind), and 4) comment
Lastly, within the notion that did not include neither assertion nor presupposition there were: 5) doubt (Subj), and 6) imperative (Subj).

Mejías-Bikandi (1994) modified Terrell and Hooper’s (1974) notion of assertion. Their original definition specified that true assertions always followed the indicative while non-assertions followed the subjunctive, however, Terrell and Hooper also presented an exception to the former definition where a non-asserted mental act took the indicative. Mejías-Bikandi (1994) argued that the notion of assertion is a relevant notion to understand mood selection but that it needed to be modified. Mejías-Bikandi (1994) believed that if speaker’s intention and communicative context were highlighted that the propositional categorization would include the speaker-interlocutor’s shared knowledge, which would in turn provide a more pragmatic explanation for mood distribution.

As it has been reported in past research, the Spanish indicative expresses assertion. According to Lunn’s (1989) pragmatic prototype of assertability, when the speaker asserts information that is both true and new, it takes the indicative, and when the speaker uses less assertable information that is untrue or old, it takes the subjunctive. According to Bolinger (1991), illocutionary theory supports the notion that the indicative mode reports information and conveys intelligence in subordinate clauses, just like simple clauses do. On the other hand, subordination along with subjunctive is used to express attitude. Bolinger (1991) concludes saying that the indicative and subjunctive “represent two ways of looking at reality, one intellectual, the other attitudinal” (p. 263).

In an effort to investigate the effects of instruction of the subjunctive in student performance including native speaker comprehension of oral production, Terrell, Baycroft and Perrone (1987) analyzed the results in a final written and oral exam of 70
beginning learners of Spanish. At the instructional stage students practiced grammar “by means of audiolingual drills or cognitive grammar exercises” (p. 21). The class average on the written exam was 23 out of 25, which resulted in 92 percent of correct answers. In the oral exam, “8 of the 81 sentences were both correct and comprehensible to native speakers” (p. 22), which results in 10 percent of correct answers.

The results from the written exam revealed that students learned subjunctive verb forms and rules of use. Contrary to this, results from the oral exam revealed that students were not able to monitor their own performance. Following Krashen’s Monitor Theory (Krashen, 1982), Terrell, Baycroft and Perrone believed that if students could not monitor their mood-choice performance during oral production, it meant that they had learned but not yet acquired the corresponding rules of use.

On an important note, considering that grammar was learned through drills and rules of use, and that the written exam included fill-in-the-blank sentences, it is feasible to believe that the high results in the written exam reflect successful learning of such skills. In this same way, if students were not expected to develop their own semantically-based subordinate clauses in writing and oral production, and were mainly required to complete fill-in-the-blank sentences with the indicative or subjunctive verb form, then the low production of subordinate sentences in the oral exam might reflect a lack of contextually bound, agency focused, semantically-based learning practiced in the classroom.

Terrell, Baycroft and Perrone (1987) state that from the results in their study, a single year of study is not sufficient for beginning students to acquire the semantically-based use of subjunctive, except for verb formation and syntactic rules of use. The
authors reported that it was difficult to tell from the data if students intended to use the subjunctive or the indicative conjugations in their answers, or if correct answers were arbitrary.

Regarding reading comprehension of subjunctive meanings, Lee (1987) tested 80 first-semester and 80 second-semester students of Spanish at the University of Illinois. Urbana/Champaign. These two groups were divided by a subjunctive pre-instruction group (first semester students), and a subjunctive post-instruction group (second semester students). The results from a cloze passage, recall and probe questions assessments showed no significant comprehension differences between the groups. That is, the pre-instruction group was able to understand the contextual meaning of the subjunctive. Lee (1987) concludes by saying that “a single grammatical item, such as the subjunctive, cannot be isolated and, in an a priori fashion, be categorized as difficult or easy to understand. The comprehension of a particular linguistic sturcture is not neccessarily a function of prior instruction in its forms and uses” (p. 55-56).

According to Givón’s (1979) interlanguage development model, there are two stages of development: presyntactic and syntactic. And once in the syntactic stage, learners go back and forth between these two stages. However, it is in the syntactic stage where learners use the grammar necessary for the use of the subjunctive: “tight subordination” (p. 223).

Collentine (1995) studied students’ oral proficiency at the end of the intermediate level in two oral tasks. Terrell, Baycroft and Perrone’s (1987) study suggested that a full year of Spanish language was not sufficient for beginning learners to produce subordinate clauses. Collentine’s (1995) goal was to find out where to place intermediate level
students within Givon’s presyntactic/syntactic developmental continuum. The first task tested 40 students from the University of Arizona in 1987. The task consisted of a participant-researcher 10-minute conversation. From all of the student utterances, 64% were single clauses “frequently juxtaposed in a paratactic fashion, giving the effect of complex utterances” (e.g. *Si Juan quiere, yo voy también*) (p. 127). 36% of the utterances included two clauses with coordinate structures, a small amount of noun clauses and an even smaller amount of adverbial clauses. In the context where the subjunctive was required, it was appropriately used in 13% of contexts. From these results, Collentine states that these students are between the presyntactic and syntactic stages.

The second task tested 38 students from the University of Texas at Austin in 1992. In this task 44 drawings along with 50 questions were used. The drawings had a short caption and glossed people or objects. Within the 50 questions, 30 elicited noun clauses and within those 30 there were 3 questions per ten modalities tested (See Collentine 1995 for more information). The drawings served as question contextualizers in order to draw students’ attention to content instead of form and thus use the vernacular style (Tarone, 1988, Collentine 1995). Following Givón’s suggestion (1979, 1990), extra time was allowed (ten seconds per utterance) for students to plan complex sentences. According to the results, 36% of the responses were simplifications: “(e.g., missing *que* subordinators, coordinate structures, and single-clause sentences)” (Collentine, 1995, p. 128). Students showed a higher preference for the use of the indicative in subordinate clauses than the use of the subjunctive. They accurately produced the indicative in subordinate clauses 90% of the time, the appropriate use of the subjunctive amounted to 34%. Collentine (1995) reports that the modalities with more accurate use of the
subjunctive were first influence, then doubt/denial, and last emotion. The contexts for the accurate use of the indicative were reports of statements, which require the indicative (reports of commands, volition, evaluations and reactions require the subjunctive).

According to Colletine (1995), students’ syntactic simplification took place in order to avoid subordinate clauses in the indicative (24% of the time) and in the subjunctive (47% of the time). The author believes these simplifications were due to transfer from English syntax complement clauses such as infinitive and gerunds to Spanish. As found in the first task, results from the second task show that intermediate students were approaching but had not yet reached the syntactic stage. Collentine (1995) concludes stating that the problem intermediate students face when “producing complex syntax and selecting mood” (p. 131) is not morphological but syntactical (e.g. structuring subordinate clauses). He thinks students “put so much energy into processing syntax that they have little left for processing morphology” (p. 130-131).

In a study with emphasis on recognition of forms, Leow (1993) found that language experience had a facilitating effect in the recognition and use of present perfect and present subjunctive in unsimplified aural and written input (Leow, 1995). Results from a statistical comparison between a pre and post multiple-choice recognition task showed that fourth semester Spanish students paid more attention to the linguistic forms investigated than second semester students. Leow (1993) suggests there is no need to simplify authentic material as long as the material matches the linguistic stages of students. He further states that “certain linguistic items” presented at a later time in the language curriculum could be presented before in order to promote attention to this items before being formally introduced (p. 344).
Following Leows’s (1995) research suggestion, Collentine (1997) investigated the effects of instruction in students’ noticing, intake and internalization of the subjunctive by increasing the perceptual saliency of irregular subjunctive verbs. In his 1997 study, Collentine tested 30 college intermediate level students of Spanish who had not yet studied the subjunctive in subordinate clauses. Using a computer program, students rearranged words to describe a given situation. The goal was to measure time of production, type of verb, and accuracy. Comparison between 8 sentences produced by the subjunctive and the indicative groups revealed statistical significant interaction between type of verb and mood.

His results showed that students notice irregular subjunctive verbs due to its novelty. He further states that this noticing process “is necessary for the subjunctive’s eventual internalization in their developing grammatical system” (Collentine, 1997, p. 15). Moreover, Collentine (1997) suggests that students are more likely to notice the subjunctive when asked to interpret sentences using irregular verbs. Nonetheless, noticing does not mean students will internalize the linguistic form.

An important conclusion by Collentine (1997, 1995) and Terrell, Baycroft and Perrone (1987) is that students tend to use the indicative in subordinate nominal clauses due to the subjunctive’s low communicative value. Communicative value, as stated by VanPatten (2002a), “refers to the meaning that a form contributes to overall sentence meaning” (p. 759). According to Van Patten, subjunctive verb conjugations have a low semantic value [-semantic value] and are redundant [+redundancy]. In this way, modality is generally found in subordinate clauses and specifically in nominal clauses modality seems to first be expressed in the lexical meaning of the first clause verb. Thus
expressing modality again through the inflection of the verb in the dependant clause may seem redundant to students. An instructional strategy, Collentine (1997, p. 18) suggests, should aim at raising the subjunctive’s communicative value and semantic properties. In order to find out what type of methodology helped students better interpret and produce the subjunctive, Collentine (1998) compared the effects of processing instruction (input-oriented) with traditional instruction (output-oriented) in 54 students enrolled in a second-semester course at an American university.

Processing instruction follows six guidelines (VanPatten, 1993): 1- One grammar point at a time, 2- Keep focus on meaning, 3- move from sentences to paragraphs, 4- present input in oral and written form, 5- Have students respond to input provided, 6- keep learners’ processing strategies in mind. On the other side, traditional instruction focuses on output-oriented activities and moves from explicit instruction to production. Output-oriented activities go from mechanical to meaningful to communicative.

Students in Collentine’s (1998) study were divided into three groups: processing-instruction, output-oriented and control. The comparison of two tasks consisting of an interpretation proficiency test (listening, reading and writing) and a vocabulary test, and a production task consisting of an oral interview showed no statistically significant difference between the processing-instruction and output-oriented-groups. Other studies have also investigated the effects of processing instruction and traditional instruction and have found similar results (See Potowski, Jegerski & Morgan Short, 2009, mentioned below). More recently, VanPatten (2002b) has suggested that PI and TI may complement each other as “PI is one kind of comprehension aproach to focus on form and TI is one kind of output-oriented approach to form” (p. 827).
Lubbers Quesada (1998) analyzed subjunctive use in oral interviews of 16 American university students completing their second year of foreign language study abroad. They all lived with Mexican families during their stay and were immersed in a 10-week language program in Mexico. The uses of the subjunctive considered for analysis were those found in the study participants’ textbooks, which were four. In the interviews at then end of the program, Lubbers Quesada (1998) noted high use of subordinate clauses with indicative 98% of the time. This led her to conclude that subordination or use of complex syntax does not promote subjunctive marking.

Lubbers Quesada (1998) also observed a tendency to use the present subjunctive forms with irregular subjunctive verbs. She further noted that with matrices expressing futurity [+futurity] and desire [+desire] such as esperar, querer, and ojalá the use of the subjunctive in the dependent clause was higher. The second highest subjunctive use in subordinate clauses was with cuándo and impersonal phrases such as es posible/necesario. These clauses express futurity but not desire [+futurity] [-desire].

Clauses with the lowest use of subjunctive included phrases such as alegrarse de que, estar alegre/contento, pensar/no creer que, sin/lo que and el hecho de que. These latter clauses either did not express futurity only desire, and had regular verbs [-futurity] [+desire] [-irregular], or did not include futurity or desire [-futurity] [-desire] (Lubbers Quesada, 1998, p. 18). From the results of her study, Lubbers Quesada (1998) concludes that subjunctive or indicative verb inflections in the subordinate clause are directly linked to type of matrix used in the main clause. This, she claims, displays a syntactic, morphological and semantic prototype schema.
Gudmestad (2006) modified Lubbers Quesada’s (1998) study (see Gudmestad, 2006) and analyzed multiple choice responses (from a written preference task) to an English written contextual prompt. The participants were intermediate and advanced Spanish language students at an American university. The predictors of mood selection were expressions of desire, expressions of emotion, expressions of futurity and irregular subjunctive verbs. Like Lubbers Quesada (1998), Gudmestad (2006) also observed a tendency to use the present subjunctive forms with irregular subjunctive verbs. In her study, the irregular subjunctive verb forms from the intermediate group were the only statistically significant independent variable in mood selection. In the advanced group, the four predictors of mood selection tested were statistically significant. However, the subjunctive was less frequent than expected with expresions of emotion. Gudmestad (2006) suggests that in intermediate students “morphological features of subjunctive verbs seem to predict subjunctive selection before other contextual features such as desire, futurity and emotion” (Gudmestad, 2006, p. 181).

The first study in the United States to apply Sociocultural Theory principles in order to teach and research Spanish subjunctive in a foreign language classroom was Negueruela’s (2003). In an effort to create a more complete and systematic approach to grammar teaching, Negueruela’s (2003) created a new domain for L2 pedagogy: conceptual linguistics (p. 210). The emphasis of this new domain would be in teaching grammar through conceptual grammar categories where mediated learning (Vygotsky, 1978) is promoted through theoretico-conceptual learning models and private speech. Negueruela’s (2003) didactic models followed Gal’perin’s (1989) Systemic-theoretical
Instruction’s guidelines for the creation and implementation of mediational tools for cognitive development.

Following STI three main tenets: finding a unit of instruction that provides a complete orientation for the subject matter, materialization of that unit of instruction through didactic aides, and using verbalizations for internalization purposes, Negueruela (2003) analyzed three sets of data: definition, discourse and verbalization before and after Concept-based Instruction (CBI). The pedagogical focus was aspect and modality and the participants were twelve college students enrolled in a university-level advanced Spanish language class.

Negueruela’s (2003) research goal was to observe students’ development of Spanish aspect and mood through the teaching and learning of grammatical conceptual meanings. Results from the pre-test definition data showed that students’ definitions were not theoretically functional and thus did not provide coherent and complete orientation for learners, except for one of the students’ definition of aspect. Most of his student definitions were initially functional. After CBI, all the participants’ definitions were semantically based. For aspect, 9 out of 11 participants’ definitions had potential theoretical functionality, in regards to mood all of them showed this same potential.

It is important to point that since these students were at an advanced level, they all had a certain degree of prior knowledge of mood and aspect, and as Negueruela (2003) found from students’ definitions of mood and aspect, they all had learned both of these grammatical features through rules of thumb in order to guide performance.

In his analysis of discourse data (written and oral), Negueruela (2003) observed
improvement after CBI, especially in written performance, among all of his students regardless of already internalized rules of thumb in previous classes (Negueruela, 2003, p. 391). As he expected, and also as Pavlenko (1999) asserted, even though students are able to provide the definition of a certain grammatical aspect, it does not mean they have control over its functionality. Subsequently, Negueruela’s (ibid) participants’ conceptual definition of aspect or mood did not directly reflect their functional use of grammatical features. These two lines of development (concept and form) are dialectical and, as Negueruela (2003) asserts, “run in opposite directions so that when finally meet they allow for the coherent and consistent emergence of linguistic forms connected to thinking for speaking in communicative performance” (p. 392).

His results showed noticeable improvement in oral and written performance at two different times. In written data, incoherent instances to express modality in noun clauses at time 1 were 30%, and 6% at time 2. The numbers for adjectival and adverbial clauses remained the same. In terms of oral data, there were few elicitation of complex sentences. Nonetheless, there was improvement among a reduced number of noun clauses: 98% of coherent use of the indicative in complex sentences, and 62% of coherent use of the subjunctive in complex sentences.

The analysis of verbalization tasks in which students use semantic reasons for their use of grammatical forms throughout two verbalization tasks for modality showed the initial process of development from perceptual to conceptual reasoning. The students’ conceptual development was initiated but not consolidated at the end of the course. However, overall student development of mood and modality was evident from time 1 to time 3.
Negueruela’s study filled a gap in past research by focusing on pedagogical grammar and mediational learning in a foreign language classroom. In this way, his research partially answered two relevant questions posed by Collentine (2002, 1995). Negueruela’s study (2003) fostered subjunctive development in meaningful tasks (Collentine, 2002, p. 885), and promoted students’s awareness and control of the concept of modality (Collentine, 1995, p. 122). However, the incommesurable differences in theoretical paradigms do not allow any type of complementation. As Razfar, Khisty & Chval (2011) mention, in SLA a linear learning trajectory is considered critical for content organization. The student works intrapersonally between him/herself and the input that needs to be processed (introduced by the instructor or tutor). Moreover, language in SLA is “treated as an isolated cognitive process independent of other developmental milestones and pathways. In this framework language is an end onto itself” (Razfar, Khisty & Chval, 2011, p. 199).

In SCT, the use of psychological mediational tools is essential for problem solving in order to reach learning goals; and learning arises out of situated activity. The student is an active agent who works interpersonally between him/herself and more capable peers (including the instructor) who take into account the students’ zone of proximal development (learning leading development) (Newman & Holzman, 1993, p. 86). Additionally, language (inner, private and/or social speech) in goal-oriented activity is considered a means to cognition, and development is dynamic as it depends on individual situated transformations in meaning-making activity. Furthermore, “it is not the lingusitic performance of words that mark development, but rather how the nature of the mediation shifts in relation to the goal of the activity” (Razfar, Khisty & Chval, 2011,
2.3 Spanish modality in monolingual and bilingual children

Modality is acquired gradually and while bilingual children may experience simplification or loss, at any developmental point of their life, due to reduced use and exposure to the heritage language, Spanish monolingual children show consistent development across time in full-fledge language contexts.

The subjunctive, as documented by López Ornat et al (1994), appears in monolingual children’s linguistic repertoire at the early age of 2,1. In their study, López Ornat et al (1994) studied the L1 development of a Spanish girl from ages 1,7 to 4,0. The subjunctive, according to the authors, appears between 25-26 months when it is used in 10 different lexemes. Initially, the presence of the subjunctive is due to a pragmatic need for negative commands with the “tú” form (i.e. que no comas).

López Ornat et al (1994) found that the child’s first verbal forms are the imperative (ven, quita) with an imperative-desiderative function and the infinitive. Gallo Valdivieso (1994) points out that it is the protagonist’s position of the child that promotes the use of indirect commands in order to get attention from her parents (i.e. *que me den de comer*). At age 2,3, according to López Ornat (1994), the child uses the present subjunctive in affirmative sentences, also with an exhortative function, and at age 2,4 she begins using consecutive (*porque*) and conditional (*si*) subordinate constructions.

In a study with a pool of elementary school children, Gili Gaya (1972) observed a consistent use of the present and imperfect subjunctive by age 4. Gili Gaya (1972) studied grammatical functions in conversations of pre-school and school-age Puerto
Rican children. Data including pre-school children consisted of children’s descriptions of 55 pictures. The total number of children were 50, 13 of the children were 4 years old, 13 were 5, 12 were 6 and 12 were 7. Concerning modality, Gili Gaya noted that in 80% of the sentences where the subjunctive was used, children used it in final sentences after conjunctions such as a que and pa [ra] que. The other sentences involved meanings of volition, desire, conditionality, futurity with a temporal adverb, and doubt.

His data consisted of 100 spontaneous conversations from children in first grade (7-8 years old) and 40 from children in fourth grade (10-11 years old). According to Gili Gaya (1972), in first grade, at 7 years old, the use of final sentences is reduced to a 50% when children begin using the subjunctive for new linguistic purposes. Under the same picture stimulus tasks, the use of volitivess rise considerably in first grade, as well as conditional and temporal sentences.

In his study, Blake (1983) set out to investigate monolingual Mexican children mood choices in complex sentences. He administered an oral completion test to 134 students from a private school for middle to upper-middle class children. Their ages ranged from 4 to 12. The elicitation techniques consisted of: 1- 40 situations accompanied by an illustration each, 2-two prompts, and 3- a sentence completion task. First, the situation accompanied by an illustration would be presented to the child, then two verbal prompts would be given followed by a first part of a sentence that the child would complete. As a control group, Blake studied a group of 39 university students, ages 18 to 20. Data analysis was based on error rates that were calculated through an ANOVA in order to assess age effect.
As hypothesized by the author, the clauses in which error production was significant were in the nominal clauses of doubt, attitude, and assertion. His hypothesis was based on the high degree of speakers’ judgment necessary in nominal clauses, in opposition to adverbial and adjectival clauses, except in indirect commands. Lower error production was observed with the use of commands, adverbial and adjectival clauses. Age was the main effect between the two groups. The older the participants were, the better they performed. At age 5, according to Blake (1983), there is observable improvement in mood selection. He further stated that after age 6, the group of children performed at adult level.

Interestingly, in Blake’s study all the monolingual participants made mistakes, even the adults. Details on the context of sentences considered as errors in the study were not presented in the article. Regarding adult errors, the author notes that they may have been due to “inattentiveness to the written administration of the test in contrast to the oral format used with children” (Blake, 1983, p. 24). He further states that the absence of tokens from certain uses within the modal system, does not reveal whether the children can handle the particular structure in question. Since some of these syntactic-semantic categories occur infrequently even in adult speech, methods for gathering naturalistic data were not appropriate (p. 23).

In a later study, Blake (1985) comments that the adults in his 1983 study used variable mood choices with assertive verbs such as está claro que, es obvio que, es seguro que and creer que. Variable mood was also present with categories of doubt or comment such as no creo que, no dudo que, and se alegra de que. He further affirms that due to high variability levels present in adults mood choices, “it is understandable why
the children did not approximate adult levels until somewhat later, around age 10” (Blake, 1985, p. 167).

While Blake (1983) affirms that with clauses of doubt and attitude children reach adult-like performance at around age 10. Gili Gaya (1972) observed a scarcity of sentences expressing doubt, fear, emotion and possibility in his data. This lead him to conclude that they are acquired in later developmental stages, after 4th grade, ages 10-11 years old.

The elicitation methods of the above studies may very well have rendered information that is difficult to compare. Gili Gaya studied developmental stages in transcribed spontaneous conversations. Blake studied stages of acquisition through an oral completion test. Gili Gaya chose to study first and fourth graders, leaving out second and third graders, and Blake studied participants with consecutive ages from 4 to 12.

Both Gili Gaya and Blake suggest that the modal irreality of the subjunctive is first grasped in children through individual lexical items whose pattern of futurity require the subjunctive. According to Blake (1983), “consolidation of the entire system proceeds gradually except in the case of adverbial clauses and commands” (p. 31). As López Ornat et al (1994) shows, children’s acquisition and use of the subjunctive mood seem to be linked to their exposure to its semantic contexts and functions, and need to produce it in context.

Regarding the subjunctive mood in bilingual children, Merino (1983) investigated, in two subsequent studies, Spanish-English simultaneous comprehension and production of six different linguistic features. Her first study was cross sectional and it analyzed the effect of grade in 41 bilingual children, ages 5 to 11, in the San Francisco
area. Most of the children, except 9, were considered balanced bilinguals enrolled in a bilingual program and were enrolled in grades that ranged from k through 4th.

In the comprehension part of the test, participants had to point at one of the two pictures matching the sentence heard. The production part consisted of a delayed imitation task where the researcher would show the child two pictures, contrasting a grammatical feature (e.g. number), then the researcher would say two sentences describing each picture (e.g. the dog, the dogs). Next, the researcher would point at one of the pictures and would ask the child to repeat what the researcher previously said (e.g. “what did I say about this picture?”).

Results showed consistent development in children’s English language comprehension and production. In Spanish, on the contrary, while comprehension remained the same, children’s production dropped considerably. Regarding the Spanish subjunctive, 4th grade children “were performing close to the level of the kindergarteners” (Merino, 1983, p. 284). However, only three test items included the subjunctive. And as mentioned by Smith (1990), Merino’s results report the use of the subjunctive as a category instead as specific types of clauses. In addition, the morpho-syntactic structures included in Merino’s (1983) Bilingual Language Acquisition Scale (BLAS) did not take into account how meaning was interpreted and produced in context by its morpho-syntactic form.

Her follow-up study included 32 participants from the original group of children, two years later. All the children, except 4, were enrolled in a bilingual classroom to grade 4. Statistical data comparison between the first and second administered tests showed significantly higher gains in English production (in all the categories) than in Spanish.
50% of the participants suffered language attrition in Spanish production, 25% showed improvement, and the remaining 25% did not show language progress. On the other hand, in terms of English production, 13% showed a loss, 72% improved and 6% showed no progress.

Specific cases of language attrition in Spanish subjunctive mood choice are the following. Within the items belonging to the conditionals category, children who used \textit{a menos} with the subjunctive the first time, used \textit{a menos si} with the indicative or subjunctive during the second test administration. In the contrary-to-fact construction the conditional or the pluperfect were substituted by the imperfect (e.g. “\textit{si el tren no fuera grande, cabría}” to “\textit{si el tren no estaba grande, cabía}”) (Merino, 1983, p. 291). Within the subjunctive category, \textit{tal vez} was used by some of the participants in the delayed imitation task with the indicative, even though the researcher used the subjunctive. With the lexical item \textit{para que}, participants who used the subjunctive during the first administration test (e.g. “\textit{El señor saca un libro para que lea}”) used the infinitive in the second (e.g. “\textit{El señor saca un libro para que leer}”) (Merino, 1983, p. 291).

Merino (1983) concluded that “children who use both languages with the same speaker [show] the greatest [Spanish production language] loss” (p. 291). In this same way, children who identify individual speakers with one language showed no loss and had language gains. We can then conclude that the amount of exposure to the language, and its need to use it in order to achieve communication, has an impact on language attrition or maintenance.

According to Silva-Corvalán (2003), in bilingual children the present subjunctive appears in their verbal system by age 3. Grammatical simplification in bilingual speakers
may be due to incomplete acquisition of Spanish, or to attrition and loss of an underused linguistic system. Silva-Corvalán (2003) compared data from 7 children ages 5,1 to 5,6 (two of them studied longitudinally from age 2,10 through 5,6), and some adults. Some children learned Spanish and English from birth, or Spanish at birth and English later on. After comparing data gathered from the two children studied longitudinally to data collected from the other five children, she observed attrition after the age of 3.

Among the observed differences, in the verbal systems of one of the only two Spanish-dominant children studied, were the use of the preterite, imperfect, present subjunctive. The child, as reported, was beginning to use imperfect subjunctive. The other Spanish-dominant child was beginning to use one verbal form not used by the others, the Pluperfect subjunctive (hubiera + past participle), and also beginning to use the present subjunctive, imperfect subjunctive and preterite, along with consistent use of the Imperfect. The rest of the children who were Spanish/English-dominant and English-dominant did not use the imperfect subjunctive and only two used the present subjunctive. According to Silva-Corvalán (2003), “age of English or Spanish language acquisition is not, therefore, the factor that may explain the differences” but reduced exposure to Spanish throughout childhood and use of only English at home (p. 381).

### 2.4 The subjunctive mood in adult monolingual and bilingual speakers

Most research on mood choice and modality seems to concentrate on specific problematic items at the sentence level (Lynch 1999). In 1995, Studerus investigated mood choice of five semantically-based structures (habituality, general truth sentences, quasi-dubitatives, double embedding and shared knowledge) in two varieties of a common dialect. He surveyed 83 participants from Laredo, Texas and 56 Nuevo Laredo,
Tamaulipas (sister cities). Most of the participants were enrolled in high school or college, a few of them were graduate students and teachers. Ages ranged from 17 to 30 years old.

By having participants choose between the indicative or subjunctive, in the subordinate clause, in a written survey of 13 items, Studerus (1995) measured regional modality preferences through a statistical analysis. The survey items were context-free. According to Studerus (íbid), this would allow the isolation of syntactic and lexical factors in the study of speaker mood selection tendencies. His statistical analysis showed a tendency to choose the subjunctive mood in the Mexican more than in the Texan group. T-tests revealed five items as being statistically significant in terms of differences of use between the two groups. The items in which the Mexican group chose the subjunctive more often than the Texan group were with items of: modality features of habituality (*siempre*), quasi-dubitatives (*probablemente*), double-embedding, and shared knowledge (*el hecho de que*).

It is of interest to note that the Texan group’s answers regarding habituality and the verb *poder* showed a tendency, although not statistically significant, to use *poder* with the subjunctive (e.g. *María siempre hace lo mejor que pueda* and *María siempre hacía lo mejor que pudiera*) (Studerus, 1995, pp. 98-99). Also the Texan group preferred to use the phrase *el hecho de que* with the indicative, when according to Terrell and Hopper (1974), due to shared information among speakers this lexical item would usually call for the subjunctive.

Studerus’ study (íbid) shows existing mood choice variability among all the items surveyed, and marked tendency towards the subjunctive in the Mexican group in 5 out of
the 13 items. Preference for the indicative in syntactic categories requiring the subjunctive shows, contrary to what prescriptive grammar tells us, existing variability outside of the classroom possibly due to semantic features. This may support the fact that there are some rules in state of flux. Further studies on pragmatic-semantic context-rich environments and qualitative analysis are necessary to further understand reasons why a speaker would prefer subjunctive or indicative when encountered with mood choices in specific contexts. This would better explain if the variability is a one time happening, directly linked to its context, or a recurrent choice preferred in any context.

In an effort to observe the pragmatics of mood variation, Guitart (1982) set out to investigate mood choice differences in clauses such as *el hecho de que*. His initial hypothesis presupposed that participants would use the subjunctive in situations in which speakers believed the interlocutor knew the information shared, and the indicative if the speaker believed that the interlocutor did not know such information. Participants included bilinguals speakers, 17 Miami college-educated Spanish-dominant Cubans, ages 36-62 with an average length of residence in the US of 11 years, 16 Spanish-dominant Venezuelans, ages 17-25 with an average length of residence of 18 months; and 10 English-dominant college-educated (or college students) Mexican-Americans, ages 19-35 who have lived in the US since birth or early childhood.

Data was collected through a 5-question open-ended questionnaire where participants had to complete each sentence based on his/her own life experience. Items included the structures *el hecho de que* and *molestarle a uno que*. Participants’ answers contradicted Guitart’s initial hypothesis. However, his second hypothesis that the more his participants’ Spanish was influenced by English, the less they will use the subjunctive
was supported. The group of Venezuelans, who had the least English language influence, used the subjunctive mood more than the others. Data results helped Guitart modify his first hypothesis regarding shared and unshared information among interlocutors: “cuando la información no sería inesperada para el interlocutor se usa el subjuntivo aun si el interlocutor no poseyera esa información, utilizándose en cambio el indicativo cuando se estima que la información resultaría inesperada” [italics in original] (p. 67). It would be interesting to further the above research focusing on bilinguals, such as the Spanish-dominant Cubans and English-dominant Mexicans, in order to provide more information on the subjunctive in their bilingual range.

In order to further study assertive and non-assertive nominal variations in monolingual adult speech, Blake (1985) analyzed the responses to a questionnaire of 56 college students from San Luis Potosí in Mexico, ages 18 to 20. The results from these questionnaires showed mood variation with matrices such as dudar, ser triste, ser seguro and ser obvio. He also observed how negated assertions are not always used with the indicative (i.e. no es cierto, no es seguro). For data reliability purposes, Blake (ibid) also carried out oral interviews. He interviewed 20 upper-middle class women from San Luis Potosí. The interviews asked the opinion of participants about the role of women and changes in values in Mexican society. In his discourse data, the author observed mood variability among similar expressions. Blake (1985) mentions that

It could be possible that the first element of discourse communicates new information unshared between the interlocutors, while the second element of discourse represents old or shared information. Having already established a context of shared information—or information the speaker would expect the listener to possess—the speaker might feel at liberty to make a stronger attitudinal comment which is somewhat peripheral, yet still significant, to the main thrust of the argument. This part of the discourse is correspondingly marked by the subjunctive mood. (p. 169)
Lavandera (1983) conducted face-to-face interviews with a 44 year old bank teller, a 36 year old upholsterer, and a 50 year old working class woman from Argentina. During the interview she asked participants to express their points of view about their countries economy situation, family traditions that were fading away, etc. In her 1983 article, she chose to study four discourse texts in which participants made an assertion followed by supporting issues or facts in relation to their main assertion. Her main interest was on the semantic effect of linguistic context, form, meaning and intention of mood shifts as the argument developed.

Lavandera (1983) found that “the subjunctive mood take[s] place when the speaker switches to issues that he neither wants to leave unmentioned nor wants to make the center of the discussion” (Lavandera, 1983, p. 230). Following Hooper and Terrell’s (1974) analysis of the subjunctive in which the indicative is used with (+) assertion, and the subjunctive with (-) assertion, the author affirms that the presence of mood shifts help the hearer interpret their message. “Thus, the subjunctive mood morphology tell him not to rely very heavily on the content of the utterance” (Lavandera, 1983, p. 232). She further pointed at certain argumentative strategies such as no lo digo porque, no es que, por más que, mientras que to acknowledge specific information before introducing pros and cons of the arguments at hand; or in anticipation of opposite views to their own position. In addition, statements with the subjunctive mood were preceded by phrases that emphasized “an alternation of voices which bring up different issues” (Lavandera, 1983, p. 231). These lexical signals, as quoted by Lavandera (1983), would be what Goffman (1974) referred to as “adjustments for frame” (p. 546), and must agree with the grammar in the given utterance so as to provide the linguistic context for mood choice.
Research studying mood variation in bilingual speakers at the discourse level, in the United States, has been carried out by Silva-Corvalán among others (Lynch 1999). In a study mentioned above, Silva-Corvalán (2003) compared data from 7 children at age five and some adults. With regards to her adult data, she concluded that “the processes of simplification and loss attested in the adult systems are most likely the consequence of an interrupted process of “normal” acquisition of Spanish between the ages of 3.0 and 5.0, when more intensive exposure to another language” (Silva-Corvalán, 2003, p. 393) occurs.

In a previous study, Silva-Corvalán (1990) examined conversations carried out with 50 Mexican-American speakers of three different groups, representing three different immigrant generations in the United States, from Eastern Los Angeles. In her analysis she identified nine stages representing the simplification and loss in the Spanish verbal system of her participants’ proficiency continuum. Simplification is the less frequent use of a competing form. The result of the process of simplification is reduction or loss of forms or meanings.

Simplification involves the higher frequency of use of a form X in context Y (i.e. generalization) at the expense of a form Z, usually in competition with and semantically closely related to X, where both X and Z existed in the language prior to the initiation of simplification (Silva-Corvalán, 1994a, p. 3).

The stages that concern the subjunctive are stages three, five, six and nine. Simplification or loss of the subjunctive mood is first observed in stage three with a simplification of the imperfect and pluperfect subjunctive. In stage five there is loss of the pluperfect and present perfect subjunctive, and simplification of the present and
imperfect subjunctive. In stage six there is loss of the imperfect subjunctive. And in the last stage, nine, there is loss of the present subjunctive.

Among the language contact factors Silva-Corvalán (1990) takes into account for the impact of linguistic form and function changes are of the following kind: socio-interactant, cognitive discursive complexity and intra and interlinguistic. She goes on to state that “it is usually the case that more than one, or even all, may be motivating and constraining a specific process of change” (p. 166). In her conclusions, she affirms that the influence from English is indirect and that “some changes occur rather as a result of reduction of both exposure to and use of a full-fledged variety of a subordinate language in contact with a superordinate one” (Silva-Corvalán, 1990, p. 168).

In a subsequent longitudinal study, Silva-Corvalán (1994b) examined data from 17 Mexican-American bilinguals, from Eastern Los Angeles, of three different generation groups (four first, six second and seven third generation). Her participants were recorded twice with a time gap of six months in between. Results showed a progressive loss of mood distinctions in Spanish delineating a proficiency continuum amongst the three different groups. After comparing data from groups 2 and 3 against group 1, the distribution of subjunctive mood decreased according to group generation. It went from 42.4% in group 1, to 26.5% in group 2 and 17.3% in group three.

Silva-Corvalán (1994b) mentioned that “reduced exposure to and use of this language correlates with lower frequency of use of Sub mood. As a consequence, a higher number of contexts may be identified where Ind and Sub are no longer contrastive” (p. 265). The subjunctive use, in its three contexts (categorical, lexico-syntactic and where there is choice) decreases progressively from group 1 to 3. Being the
first group the one with its highest use. Nonetheless, the subjunctive seemed to have a consistent use across groups in the obligatory contexts of volitional, purpose and concessive clauses. According to Ocampo (1990), who used the corpus of nine of Silva Corvalán’s (1990) participants, most of the use of subjunctive among third generation heritage speakers appears to be in obligatory contexts. He mentions the overall low subjunctive use in optional contexts combined with low use in obligatory contexts show evidence that “también las restricciones formales se están perdiendo” (formal restrictions are also getting lost) (p. 45).

However, in order to understand how covert the process of simplification may be to the speaker, it is crucial to understand that the eventual change from subjunctive to indicative is not abrupt but gradual. As Silva-Corvalán (1994b) mentions, this process is related to the notion of nonfactuality expressed in the dependent clause. She further states that the most propitious contexts for subjunctive use are in “volitional matrices, causative, purpose, and concessive clauses” (Silva-Corvalán, 1994b, p. 270).

2.5 The subjunctive mood in research studies focusing on Heritage language learners

In the Miami area, Lynch (1999) studied subjunctive use among thirty (ten first, ten second and ten third generation) Miami Cubans, some of them enrolled in a Spanish for native speakers class. His data analysis was based on informal oral interviews that included 30 participants; and a sentence completion task from a sub sample of 13 (five second and eight third generation) participants enrolled in a Spanish for native speakers class. His quantitative analysis revealed few intergenerational differences in the use of
the subjunctive in the categorical contexts of volition, purpose, temporal with futurity and hypothetical manner.

As reported by Lynch (1999),

Statistically significant differences in the frequency of indicative usage between the first and third generation in adjectival and comment clauses, and between the first and second generations with respect to subjunctive usage in modal contexts. One other context of usage—uncertainty—approached statistical significance (p=.06) of differences in the frequency of indicative usage between the three groups of speakers (N=30). (p. 176)

Qualitatively, he noted overall speaker association between the semantic value of +irrealis and/or +future and the use of the subjunctive. He further observed variability in first and second generation speakers with semantic values of -irrealis and/or -future. In these contexts the third generation group preferred the indicative (Lynch, 1999, p.137).

Interestingly, Lynch (1999) observed higher variability of mood selection in the writing of second generation speakers (enrolled in a SNS class) than in their speech. He also noted a similar pattern in third generation speakers. However, it is essential to point out that written data observations made by Lynch are based on a single 31-item sentence completion task, which focuses on form and not on broader discourse-level usage.

In another study, Martínez Mira (2009b) investigated heritage speakers’ use of concessive clauses. Her data consisted of oral interviews and 3 questionnaires (sociodemographic, sentence completion and grammatical judgment). Her participants were 100 heritage speakers from New Mexico enrolled in either a Spanish for heritage speakers or a Spanish as a foreign language class. Her monolingual controlled group included 98 university students from Mexico City and Monterrey, in Mexico. Contrary to Silva-Corvalán’s classification of participants by generation, Martínez Mira (ibid) classified students into 7 different groups. Groups were numbered from 1 to 7 according
to the participants experience with Spanish. Her criteria were based on her participants’
exposure to Spanish: generation, formal instruction in Spanish, age of acquisition of
English, Spanish language use, etc.

Martínez Mira (ibid) found that the decrease of subjunctive use cannot always be
accounted by generation since her NM6 group used more subjunctive than her NM5
group. In her oral data, her results show that both monolinguals and heritage speakers use
a similar proportion of subjunctive but that they prefer different positioning.

Monolinguals used aunque with subjunctive 80% of the time, while heritage
speakers used aunque with subjunctive 83.3% of the time. Nonetheless, Martínez Mira
(ibid) warns that the type of prompt and topic used to elicit mood choice may have
influenced participants’ performance. For example, she explained that contextual cues
might have triggered the low relevance context. This is so as the two most used verbs
were pagar and ofrecer. She further explained that speakers might have heard these two
verbs with the subjunctive more often than with the indicative, thus increasing the use of
subjunctive in the oral data. In her written data, heritage speakers used the subjunctive
less than monolinguals, regardless of position, even though both groups favored the
aunque with subjunctive sentence structure. She concluded that participants did not rely
on the preposed or postposed position of aunque when selecting mood choice.

It is interesting to note that while in the grammatical judgment data (familiarity
data) heritage speakers selected the “I have heard it and used it” multiple choice more
often in sentences with the subjunctive than with the indicative: 77.4% in aunque with
subjunctive preceding the main clause, and 66.1% for aunque with subjunctive in the
second clause, these results did not correlate with the written production data. In the
written data, groups NM4, NM5, NM6 and NM7 produced less subjunctive than other groups which led Martínez Mira to consider incomplete acquisition. However, all the bilingual participants of her study were students of Spanish as a heritage language or as a foreign language.

Regarding formal language instruction and subjunctive development, Martínez Mira (ibid) believes that “even when the heritage speakers may have received academic instruction regarding the rules behind modal alternation in adverbial clauses, the natural circumstances surrounding how the language was first learned seem to play a role” in written production (Martínez Mira, 2009b, p. 119). While I agree with Martínez Mira on the importance of further examining the type of knowledge tapped (identifying the topics and verbs used with the subjunctive) in the interview, I would also argue that an important factor to consider is the type of instruction used in heritage language classrooms. Do students have to memorize rules and apply them to fill in the blank activities? Or are students taught to learn Spanish modality at the conceptual level while exercising agency through meaning-based discourse?

In a different article, Martínez Mira (2009a) compared the use of the subjunctive in temporal clauses with *cuando* among the same participants mentioned above, but now adding another group: 202 students in a foreign language intermediate-advanced class at the University of Illinois. These latter students were classified in five different groups according to the results of a proficiency test. At the moment of the study, the subjunctive had not yet been explicitly taught in class. Results of subjunctive/indicative written production showed the same amount of indicative used among the three groups.
Regarding the subjunctive, its use notably declined among the heritage language (media= 52.05) and foreign language learners (42.37). Martínez Mira (2009a) attributes these results to the fact the foreign language learners “tampoco han interiorizado el significado gramatical del subjuntivo” (Martínez Mira, 2009a, p. 115). While the decline in foreign language learners was gradual, the heritage language learners’ group showed fluctuation among generations. The use of subjunctive with cuando was higher in group NM6 than NM5 and NM7, and group NM3 also used more subjunctive than NM2 and NM4. Results of the grammatical judgment task showed that heritage language learners recognize the use of the subjunctive with cuando when future is projected (media= 93.71%). However, this did not correlate with their low use of subjunctive in written production (52.05). In addition, heritage language learners selected the multiple choice “I say it” in sentences with cuando + indicative (45.71%), when in reality it should have been cuando + subjunctive.

In a different study targeting receptive abilities under the generative grammar paradigm, Montrul (2007) studied heritage language learners’ knowledge of verb morphology and interpretation of the subjunctive and indicative mood, in nominal, adverbial and relative clauses. The participants were 20 bilingual speakers (9 advanced and 11 intermediate): 14 were enrolled in a Spanish for bilinguales class and 6 were taking basic Spanish language classes. The control group was 15 Spanish-speaking international students who were recent arrivals in the US.

Data for the study was based on a morphology recognition task and a sentence conjunction judgment task. The morphology recognition task consisted in a short passage with 10 verbs in indicative and 9 in subjunctive. Students had to go over the text and
select one of two verbs conjugated in indicative and subjunctive. The second task tested students’ understanding of meaning when selecting indicative or subjunctive in 20 adverbial and 10 relative clauses. The adverbial clauses only included the conjunctions *cuando* (when) in habitual contexts, and *de manera que* (such that). 15 of them were in the indicative and 15 in the subjunctive.

Results by group showed that monolinguals scored significantly higher than bilinguals. Within the bilingual group, results of the first task showed that they were more accurate on the indicative than the subjunctive. Advanced speakers were more accurate selecting the subjunctive in obligatory contexts than the intermediate group (were 67% accurate on the subjunctive). In the second task, intermediate participants did not discriminate between indicative and subjunctive in logical and contradictory sentences. Despite signs of weak discrimination in the advanced group, they showed statistically significant difference only with *cuando* clauses.

As for individual results, just one participant in the bilingual group discriminated statistically between indicative and subjunctive with *cuando, de manera que* and relative clauses. Montrul (2007) concluded that 2nd generation speakers, who may recognize the use of subjunctive versus indicative in obligatory contexts, do not necessarily have the ability to discriminate semantically between subjunctive and indicative in variable contexts, when there is a subtle meaning (Montrul, 2007, p. 37).

In a different study also investigating receptive abilities, Mikulski (2010b) compared 32 Heritage and 22 FL learners’ capacity to recognize nativelike and non-nativelike uses of the subjunctive in volitional constructions. The nativelike group consisted of people who had lived outside the United States the first 18 years of their
lives. Participants were from three different universities in the Northeast. They were enrolled in third year courses and had studied Spanish for at least one year at the college level, and/or two years in high school. Data were collected during 30 minutes of their Spanish class; and consisted of a background questionnaire, a grammatical judgment task, an editing activity, and a multiple-choice cloze passage.

According to Mikulski (2010b), she chose to study volitional constructions because they are acquired early, “they lack contextual or dialectical variation” (p. 221), and they have a consistent Subjunctive Disjoint Reference (SDR) effect. This effect, as mentioned by Mikulski (2010b) takes place when both clauses, the main and the subordinate, have the same subject. Her results showed that heritage language learners had higher scores than foreign language learners. In the grammatical judgment task, average scores are as follows: HLL’s score was 10 out of 13 and FLL’s was 8 $t(52) = 2.75, p < .01$. In the editing task, HLL’s score was 8.8 out of 11 and FLL’s was 6.5 $t(52) = 4.89, p < .0001$.

Mikulski (2010b) affirms that the HLLs in her study “have acquired the ability to recognize native-like and nonnative-like mood selection in volitional constructions to a greater extent than their SFL counterparts” (p. 227). She further states that the way both groups performed on two individual items in the grammatical judgment test also suggests that the SDR effect in HLL group was not affected by incomplete acquisition or attrition. Another finding was that even though HLL scored higher that FLL, HLL’s answers did not always correspond the responses of the native speaker group. The author believes this may be due to less use of the subjunctive in U.S. varieties of Spanish and to incomplete acquisition or attrition.
Mikulski (2010b) warns about inter and across group variability where outliers may raise the group mean. She further calls for future qualitative and quantitative research to study group variation and language proficiency. In fact, in a subsequent study, Mikulski (2010a) observed the positive link between participants’ scores and language experience. Her study compared language variables of the above-mentioned data but with a division of an early and late bilingual group. Results showed a positive link between high scores in the editing task and past Spanish language use at home \( (p = 0.012) \), as well as scores in the editing task and several visits to Spanish speaking countries \( (p = 0.011) \). She also saw a positive association between high scores in the editing task and in combined tasks (editing and grammatical judgment) and several visits to Spanish speaking countries \( (p = 0.031) \). The similarities between the two groups motivates Mikulski to recommend further studies to explore a more precise classification, rather than age of arrival, for onset of bilingualism.

Potowski, Jegerski, and Morgan Short (2009) compared the effects of processing instruction and traditional output-based instruction in heritage language learners and foreign language learners on developing past subjunctive, in a two-day instructional treatment. Their participants consisted of a group of 127 heritage language learners in intermediate and advanced classes of Spanish as a heritage language, and a group of 22 students taking Spanish as a foreign language.

The output-based instruction treatment first focused on output of target form and went from mechanical to meaningful to communicative. The processing instruction treatment, following VanPatten, 2003; Lee and VanPatten, 203; Farley, 2005; Lee and Benati, 20007a, 2007b; Wond 2004, focused on five processing instruction guidelines. 1-
One grammar point at a time: past subjunctive in adjectival clauses used in third person singular and plural. The main clauses’ only verbs were *no haber* (there was not), *no tener* (did not have) and *buscar* (was looking for). This last verb was sometimes replaced with the verb *querer* (wanted to) during testing because it was “a form that was not used during instruction, in order to avoid learners’ reliance on lexical items…as subjunctive triggers” (Potowski, Jegerski, and Morgan Short, 2009, p. 554). 2- Input was presented aurally and in writing. 3- Meaning had the main relevance in all activities. 4- Minimizing redundancy by placing the dependant clause in sentence initial position and highlighting the target form in boldface type; and 5- Having students respond to the input provided. Testing included three versions of computer-based test that included three tasks: an interpretation task, a grammatical judgment, and a written production task with 12 items each.

Results from the statistical analysis using a repeated-measures 2 X 2 ANOVA showed a significant moderate to strong effect for time, and also a significant modest time X group interaction. However, language development was greater for the foreign than the heritage language group. In the written production task, there was a significant strong effect for time, and a modest effect for time X group interaction. No other significant effect was observed. In the grammatical judgment task, there was a significant but weak effect for time, and a significant modest effect for time X group interaction. In this last task, the heritage language group did not show growth in the posttest, and the control group of heritage language learners did not show improvement in any posttest.

The authors warn that there was insufficient statistical power “to detect potential effects for instruction” (Potowski, Jegerski, & Morgan Short, 2009, p. 561). The greater
statistical growth observed in the foreign language group led the authors to conclude that “a different type of instruction may be required to oust a competing form versus adding a previously nonexistent form” (Potowski, Jegerski, & Morgan Short, 2009, p. 561). These results support prior research. As mentioned above, Collentine (1998) did not find significant differences between the effects of processing instruction and output-based instruction. Potowski, Jegerski, & Morgan Short (2009) suggest that the two groups in their study may follow different cognitive processes since the heritage language learners, in contrast to the foreign language group, are possibly using a form acquired among their community that corresponds to academic Spanish.

As the authors mentioned, one of the limitations of their study is that “judging the grammaticality of isolated sentences may not tap into whether students are aware of the different meanings that mood options convey”, another limitation was that “the study has not been able to address the cognitive processes that underlie linguistic development” (Potowski, Jegerski, & Morgan Short, 2009, p. 565). It is important to note that although this article was very thorough in its statistical analysis, it does not offer any qualitative insights on their data.

2.6 Conclusions

The research articles presented here share the common goal of investigating different features of Spanish mood and modality through different theoretical paradigms, methodologies and data analysis procedures with different populations: English/Spanish monolingual, bilingual speakers and heritage language learners.

Within the monolingual population, pre-school monolingual children seem to first begin using negative and indirect commands (López Ornat, 1994). School children tend
to favor subjunctive mood in final sentences, and as first graders encounter new linguistic purposes the use of volitivies, conditional and temporal sentences is more prevalent than in final sentences.

Notoriously, mood variability is present in the speech of Spanish monolingual speakers, except in embedded clauses of temporality and indirect commands (Blake, 1985). Monolingual children reach adult-like performance at around age 10-11 (Bake, 1983; Gili Gaya, 1972). In bilingual children, as children are schooled in English, while their Spanish language comprehension remains the same, their production is reduced (Merino, 1983). Grammatical simplification in bilingual speakers may be due to incomplete acquisition of Spanish, or to attrition (or loss) of an underused linguistic system (Silva-Corvalán, 2003). However, linguistic scenarios vary and are dependent upon the personal history of each individual.

Among adult bilingual speakers studies show notable mood variability when comparing bilinguals to monolinguals (Studerus, 1995; Guitart, 1982; Silva-Corvalán, 1990, 1994b, 2003; Lynch, 1999). Nonetheless, there is also variability among monolingual adults (Blake, 1985; Lavandera, 1983). However, the change from subjunctive to indicative in bilingual speakers appears to be gradual (Silva-Corvalán, 1994b) as well as inter and intra generational (Martínez Mira, 2009), depending on speakers’ exposure to the language and its use.

As reported before, modality seems to develop progressively in the classroom and in natural settings. Some authors working with second language learners (Terrell, Baycroft and Perrone, 1987) have suggested that a full year of study is not sufficient for foreign language students to produce subordinate clauses. Others (Collentine, 1995;
Leow, 1995; VanPatten, 2002) believe it is an issue of information processing, and that students are not allowed sufficient time to process syntax (Collentine, 1995). Some authors (Collentine, 1998; Potowski, Jegerski, & Morgan Short, 2009) working with Heritage language learners have compared processing instruction (input oriented) with traditional instruction (output oriented).

Heritage language classrooms are meant to provide specialized teaching and learning strategies to target the grammatical, lexical, morphological, syntactical, rhetorical and sociolinguistic needs of Heritage language learners. Studies of Spanish mood among this population show higher variability of mood selection in students’ writing than in their speech (Lynch, 1999). Even after they reported to have heard and used the subjunctive in a specific context in speech, when faced with the same context in writing, participants chose to use the indicative instead of the subjunctive as initially reported (Martínez Mira, 2009b).

Most studies have found that heritage speakers’ subjunctive mood receptive skills do not match their production in writing (Lynch, 1999; Martínez Mira, 2009b; Mikulski, 2010b; Montrul, 2007; Potowski, Jegerski, and Morgan Short, 2009). Although this research has helped us understand the cause and effect results of the same, or two different teaching methods; tested linguistic hypothesis; and helped us to further consider heritage speakers receptive skills as well as validated a latent process of simplification and loss of different Spanish-speaking communities in the United States (Silva-Corvalán, 2004), to my knowledge research focusing on pedagogical grammar (Negueruela, 2008a), mediational learning (Vygotsky, 1978), and student learning development of Spanish
mood and modality in any of the many college-level Heritage language classrooms around the United States has not yet been published.

As the Hispanic population grows in this country, so does the need for research to contribute to the Heritage language teaching field. As Valdés (2005) stated, it is important for language educators and applied linguists to examine “the results of teaching practices in order to draw from those results important insights about both language and language learning” (p. 309).

To conclude, in this chapter I have reviewed existing research on Spanish language modality. This dissertation is interested in studying how Heritage language learners gain and develop conscious awareness and control of the concept of modality in a Heritage language classroom. Research in bilingual participants shows a progressive loss of mood distinctions visible in the bilingual continuum of the studied data. There seems to be mood choice variability leading to non-contrastive uses of the subjunctive and indicative mood due to reduced exposure to Spanish. Such reduction minimizes context-rich environments where semantic features require such contrast.

Classrooms may provide context-rich environments. Further research should investigate how an informed pedagogy can aid in developing Heritage language learners’ Spanish modality conceptual knowledge while providing cognitive awareness and control of its use in writing through Concept-based Instruction.
CHAPTER 3
VYGOTSKY’S SOCIOCULTURAL THEORY OF MIND

3.1 Introduction

The pedagogical method followed in this study is Gal’perin’s (1969) Systemic-Theoretical Instruction (STI) and Negueruela’s (2003) Concept-based Instruction (CBI), and it is grounded in the Sociocultural theory of mind developed by Vygotsky (1978, 1986, 2004) and his followers.

This chapter is organized as follows. In the first section of this chapter, I illustrate how language learning was depicted by Vygotsky and will make direct connections between theoretical key constructs and the social development of language. The key constructs include: mediation, private speech, concept formation, the zone of proximal development, development, and internalization. In the second section, I refer to concept formation and its method of study. In the third section, I provide information about Vygotsky’s (1994) search for a new method to help research concept formation. In the fourth section, I describe Gal’perin’s (1969) research agenda. In the fifth section, I explain Gal’perin’s Systemic-Theoretical Instruction teaching approach (STI). In the sixth section, I refer to studies on Concept-Based Instruction (CBI) in language classrooms. The seventh and last section concludes this chapter.

3.2 Theoretical framework: Sociocultural Theory

Vygotsky, in a search for a new methodology in psychology “that would make possible description and explanation of higher psychological functions in terms
acceptable to natural science” (Vygotsky, 1978, p.5), constructed a research methodology that comprises the socio-historical nature of human beings, in unity. He embarked himself to create a holistic theory that could explain the higher mental processes: the development of speech, thinking and consciousness (Haenen, 1996). His theory is holistic in that he studies the overall development “based on what is known and how it is known” (Newman & Holzman, 1993, p. 122) of the individual in connection with the environment, history and cultural practices that help the child’s intellect to develop and reach higher thinking levels.

His theory encompassed four genetic domains of research: phylogenesis, ontogenesis, microgenesis, and sociogenesis. The phylogenesis domain is interested in the development of humans and other species (apes). Ontogenesis is concerned with the development of higher mental functions and the use of mediational means to achieve internalization throughout time. Microgenesis studies the development, in a relatively short period of time, of a particular cognitive development during ontogenesis. Sociogenesis is concerned with the history and nature of social and cultural development of material and psychological artifacts and its effect in the individual. The most important principle in Sociocultural theory is mediation and thus, it is an important constituent within the four genetic domains mentioned above. The domain in which L2 research has been carried out is in the ontogenesis and the microgenesis domains.

Among the most important constructs Vygotsky developed that help explain language learning are: mediation, inner and private speech, the zone of proximal development, concept formation, internalization, and development. Another important construct further developed by a colleague of Vygotsky, A.N. Leont’ev (1978), was the
concept of activity. In the following paragraphs I will talk about how the constructs mentioned above help explain language learning.

3.2.1 Mediation

Mediation is the main concept in Sociocultural theory (Lantolf, 2000) and thus all studies carried out in this tradition consider mediation in situated activity to be the relevant unit of study. For Vygotsly (2004), mediation is the process through which higher mental functions are reached (p. 561). As Karpov (2003) states, “human mental processes mediated by tools were called by Vygotsky higher mental processes, to differentiate them from lower mental processes with which children are born, and which are specific for both young children and animals” [italics in original] (p. 139). According to Vygotsky (1978), elementary mental processes are of biological origin and higher psychological functions have a sociocultural nature. Elementary mental processes include involuntary attention, simple perception, and natural or direct memory. Higher mental processes are self-organized attention, reflection, categorical perception, conceptual thinking, and logical memory. Even though biological and higher mental functions are independent, and are qualitatively different forms of thinking, they converge once the individual starts participating within his cultural practices (Vygotsky, 1978, p. 24). The new forms of intellectual behavior are considered a “product of the cultural development of the child” (Vygotsky, 1998, p. 34).

Tools are key for future development. There are material and psychological tools that have served men as mediators throughout history. Vygotsky (1978) argues that higher mental functions are acquired through the use of auxiliary means when these means are used in activity. Auxiliary means such material or psychological tools (signs or
symbols) have been culturally constructed and represent a product of cultural-historical development. Material tools, for example a stick with a hook that helps men pick oranges from a tree, extends man’s reach and thus his potential to accomplish a goal.

Psychological tools, such as information-organizing diagrams or mnemonics, also help men amplify his current planning (organizing, memory) potential to reach higher thinking levels. As societies progress and man produces new material artifacts to extend his potential and psychological tools to self-regulate his thinking, the value of such cultural practices increases. The quality of the psychological tools aiding students attain higher thinking levels is especially important at school. Its importance relies on adopting a holistic view of the student as a social culturally mediated human being.

3.2.2 Private Speech

Vygotsky (1998) asserts that “speech cannot be separated from understanding”. Language is a means to communicate with others and also a “means of thinking” (p. 50). We use words not just as means to understand others and internalize social interaction but also to understand ourselves and mediate our cognitive functions.

Speech has both a social and also a self-directed function. The primary function is interpersonal and the secondary function is intrapersonal (Appel & Lantolf, 1994). It becomes private speech when it “takes on a private or cognitive function” (Lantolf, 2000, p. 15). Even though private speech is initially interpersonal and thus social, when it is used for self-regulation it eventually turns into intrapersonal communication in the form of inner speech where it dissolves into meaning becoming a new psychological function. Language, in this way, becomes the most important mediational tool and “plays a major role in the development of all mental processes of children during the second and third years of school.”

Promoting private speech in formal instruction is of great relevance as “private speech represents the externalization of what otherwise would remain as covert mental processes (i.e., planning, remembering, learning, etc.) and emerges in the face of difficult tasks” (Appel & Lantolf, 1994, p. 439). Research that examines private speech as conceptualized in Vygotsky’s Sociocultural theory is very important because it allows researchers to observe the developmental process of internalization of psychological tools and the new psychological functions created by them in activity. Especially when working with Heritage Language Learners as private speech encourages them to orient their understanding of the mediating tool provided and to self-regulate metacognitive processes based on scientific knowledge. This type of orientation moves students’ understanding and reflection away from empirical knowledge that may solely be based on oral proficiency as in “no me suena” (it does not sound familiar) (Shwartz, 2003).


3.2.3 Concept formation

Vygotsky (1987, p. 172) argued that scientific concepts developed differently from everyday concepts (for relevant studies examining the link of activity, empirical and scientific knowledge, and the differences in modes of thinking see Luria (1976), Tulviste (1989, 1992), Scribner (1977) and Scribner and Cole (1981), among others). Everyday concepts are characterized by their spontaneous use and the lack of the child’s conscious
awareness of their meaning. That is, the use of such concepts in oral speech does not imply the child is aware of the meaning or use of such concept.

While everyday concepts arise out of the child’s concrete daily experiences, scientific concepts are learned in school. Scientific concepts are characterized by the individual’s conscious awareness of their meaning, voluntary attention and logical thinking (Vygotsky, 1987, p. 184). The development of scientific concepts in the school setting “begins with work on the concept’s verbal definition, with operations that presuppose the nonspontaneous application of this concept” (Vygotsky, 1987, p. 217).

According to Tulviste (1989), scientific concepts differ from everyday concepts in 3 ways.

1. They are determined by other concepts, and are part of a conceptual system;
2. They are cognized as concepts, i.e., a concept is cognized separately from its denotata;
3. “Supraempirical” connections, i.e., connections that take place only between concepts, but not between their denotata, are possible in such cases. These characteristics are associated with the use of scientific concepts in a specific sphere of activity: science. Everyday concepts used in “everyday life” (which for Vygotsky means “not in science”) do not need to be defined and cognized separately from their denotata; only connections that reign in the external world, i.e., in the denotated world, are possible for them. (p. 7)

The process of scientific concept formation requires a certain degree of maturation of spontaneous concepts in the child, in order for conscious awareness to be realized, which is typically at school age. The development of scientific and everyday concepts grows in different directions. Conscious awareness and volition are the first steps in the development of scientific concepts. This development then moves downward towards concrete personal experience. The development of everyday concepts begins with knowledge of concrete personal experience and then moves upward toward higher conceptual understanding. Toward conscious awareness and volitional thinking.
During the process of concept formation, the student goes back and forth between spontaneous and scientific concepts. This process identifies both types of concepts as interdependent. The mental stages on concept formation are: syncretic, complex (in preschool children), preconcept (in school age), and concept (in adolescence). Preconcepts are learned during the school age. Concepts, which entail a higher cognitive and social development, are attained during adolescence (Vygotsky, 1987, p. 178).

According to Vygotsky (1998), during the transitional age of sexual maturation the adolescent goes through an intellectual reformation that shifts thinking from graphic to conceptual. This transition marks the beginning of new forms of thinking, content of thinking and social and self-thinking awareness (Vygotsky, 1998, p. 38). The new content, which is initially external, includes convictions, ideologies, ethical behaviors, new interests, etc. As the adolescent changes activity and begins to actively participate sharing interests and/or working in cultural spheres, he goes through a process of self-observation, maturation and development. The socialization process, at this new stage, allows this new content to become internal through speech and modifies personality, among other behavioral systems.

In this way, as his new activity and new content changes so does his thinking mechanism. Vygotsky (1998) believes that only in concepts can the adolescent assimilate new content in a comprehensive form and that “without thinking in concepts there is no understanding of relations that underlie the phenomena” (Vygotsky, 1998, p. 42). This is so as the essence of the concept relies in its ability to illustrate the specific connections and relations in synthesis: “in a word, in a integral image through a multitude of determinations” (Vygotsky, 1998, p. 53).
Furthermore, it is through concepts that the adolescent develops in-depth understanding of connections, interdependencies and patterns in the external and internal world, through the means of speech. Concept formation, combined with speech, allows him to wonder, observe, analyze, systematize and generalize the external world while becoming aware of his own internal activity. By its nature, then, the concept in its essence, along with speech promote the internalization process that brings development.

3.2.4 The Zone of Proximal Development

The zone of proximal development (ZPD) is one of the most well known Vygotskyan concepts in education. Relevant research studying collaboration within participants’ ZPD in SLA are Antón and DiCamilla (1998), Snyder Ohta (2000, 2006), and Poehner (2008) to mention a few. The main contribution of the ZPD is a new conceptualization of learning and development. According to Leong, D. and E. Bodrova (1999):

Vygotsky chose the word zone because he conceived development not as a point on a scale, but as a continuum of behaviors or degrees of maturation. By describing the zone as proximal (next to, close to), he meant that the zone is limited by those behaviors that will develop in the near future. Proximal refers not to all possible behaviors that will eventually emerge, but to those closest to emergence at any given time. (p. 35)

For Vygotsky (1978), the child develops at two different levels. The low level is what he can accomplish independently, and the higher level is what he can accomplish by means of assistance from an expert, or a more capable peer. According to Vygotsky (1978), meaning emerges in activity through collaborative dialogue when an expert, or a more capable peer, helps a less knowledgeable leaner through scaffolding (Wood,

Wood, Bruner and Ross (1976) introduced the term “scaffolding” to refer to the process in which assistance is provided by the adult to the child at different levels, depending on assistance needed (according to the students’ ZPD) and learning progress. This assistance is eventually removed when the child is able to take total control of the task.

Collaborative dialogue is then an essential component in learning settings. By using speech in social interaction to accomplish a goal, the ZPD acts as a precursor to inner speech. “Once a concept is explicated in dialogue, the learner is enabled to reflect on the dialogue, to use its distinctions and connections to reformulate his own thought. Thought, then, is both an individual achievement and a social one” (Vygotsky, 2004, p. 12).

Vygotsky stated that noninteractive and noninterventionist tests are limited when assessing school-related concepts for which learners need assistance in order to make meaning out of them. These traditional tests can only let the tester, and the student, know what the student can accomplish on his own. Vygotsky argued that the limitation of noninteractive and noninterventionist tests is that they only offer an account of what a student could do in the past but provide no information related to the learner’s developmental potential (Vygotsky, 2004, p. 352). That is, they do not offer a complete picture of the development of the child: what he did in the past, what he can do in the present and what he will do in the near future, that is, skills about to emerge.
The ZPD is critical in instruction leading development since it “determines the domain of transitions that are accessible to the child” (Vygotsky, 1987, p. 211), reason why instructors need to be aware of their students’ actual and proximal development. It is of utmost importance to take into account that “the only instruction which is useful in childhood is that which moves ahead of development, that which leads it” (Vygotsky, 1987, p. 211).

Vygotsky (1986) further believed that instruction that considers the ZPD leads development and targets motivation when engaging students psychologically in activity. The connection between scientific and everyday concepts, as mentioned above, is to be attained by students in academic settings, in collaboration with the teacher as facilitator of knowledge, who would take into account students’ ZPD, and with more knowledgeable peers. Adults, just like children, need to be psychologically engaged in meaning-making activity in order to learn. Hence, the essential goal of meaning-making is the focus of study in learning that leads development (Newman & Holzman, 1993).

3.2.5 Development

Development is a process in constant flux in which new and more complex forms of thinking arise and eventually get established. During this process, the individual may ascertain what is essentially new, what it means, how it used and how it is applied. Essential traits of this intellectual transformational process are mental stages with specific functions. The interrelation of these functions and their direct connection with conscious awareness brings about cognitive development.

The span of development varies among individuals and is contingent upon their practical activity and their activity system. For this reason, according to Vygotsky (1998),
we can “observe concepts in the process of their being established” but it will not be until the end of the transitional period that concepts will become a “dominant form of thinking” (Vygotsky, 1998, p. 51).

Vygotsky (2004) asserts that the processes of higher mental functions do not arise by means of maturation alone. Piaget, on the other hand, believed in biological and universal stages of development. “For Vygotsky…there is no “stage” but only a progressive unfolding of the meaning inherent in language through the interaction of speech and thought” (Vygotsky, 2004, p. 19). His research studied the qualitative changes in development of higher mental processes in motion that would help “explain the transformation of elementary psychological processes into complex ones” (Vygotsky, 1978, p. 7). Vygotsky (1987) believed that elementary forms of thinking were the foundation of higher, more complex, mental processes. He was thus interested in investigating how mediation in practical activity impacted cognitive development. He was interested in the nature and process of development, from beginning to end, and in the qualitative changes emerging in activity, not only the performance of the individual.

Vygotsky’s (2004) dialectical method studied the continuous development in a dialectical unity in order to observe the transition to qualitatively new forms of mental processes that participate in linguistic behavior from beginning to end. The revolutionary activity that Vygotsky promulgated was based on a theory whose value “resides not just in the analytical lens it provides for the understanding of psychological development, but in its capacity to directly impact that development” (Lantolf and Thorn, 2006, p. 19).
3.2.6 Internalization

As Lantolf (2000) explains, internalization “is the process through which a person moves from carrying out concrete actions in conjunction with the assistance of material artifacts and of other individuals to carrying out actions mentally without any apparent external assistance” (p. 14).

Internalization can be exemplified through material tools among novice and expert players. Expert players, such as coaches, can visualize a move and its subsequent result without playing the game. A novice, on the other hand, has to play the game and do the move to see what will happen. A novice does not have actual control of where, for instance, the volley-ball will end when an expert does. The expert then has internalized, through experience, the material and physical support (volley-ball, the height of the net, the size of the court, the position of the players, the ability of individual players) needed to accomplish a goal. “This, however, does not mean that mental activity is free of mediational support. Indeed, there is support only now it is internally situated” (Lantolf, 2000, p. 14).

Psychological tools, on the other hand, are designed to impact individual’s cognitive processes and reach higher thinking levels (i.e., thinking in scientific concepts). In the instructional setting, teaching approaches that promote the use of quality psychological tools to orient activity and promote conceptual development, such as Gal’perin’s (described below), outline and significantly impact the level of awareness and control of scientific concepts, its meaning and connections promoting internalization. Internalization takes place when students rely in the essence of the concept, initially represented in the form of a psychological tool of some form (chart, diagram, etc.), to
illustrate specific connections and relations in synthesis (Vygotsky, 1998) at the mental stage without the help of a psychological tool.

### 3.3 Concept formation and its methods

According to Vygotsky (1994), the traditional methods available at the time which researched concept formation did not properly analyze the process and nature of its development. The first one of these two methods was the definition method. In this method the researcher studied already formed functional concepts through the child’s purely verbal definition of it. The two shortcomings of this method are that it does not analyze the process of concept formation from beginning to end. Besides, it does not use any objective material in order to study the child’s posited connection to reality between word and object. For Vygotsky (1994), “the most essential thing for a concept [is] its relationship to reality” (p. 201). The second method used a variety of objects for the child to select attributes and generalize characteristics but did not use words.

As mentioned by Vygotsky (1994), the synthetic genetic method by Ach came to fill this research methods gap in the study of concept formation. This method studied the establishment of the concept and the synthesis from a variety of signs, of made up words, during concept formation. Although this method succeeded in not taking into account prior knowledge, putting children and adults at the same level doing the experiment in exactly the same way. It was not able to reveal how the concept was understood and used in a real life situation.

Through his research on concept formation, Ach came up with an important factor for thinking process development: the determining tendency. According to Ach’s determining tendency, an essential factor in concept formation is the posing of a problem
which by means of its solution activates conscious thinking acts that help develop the concept. However, as Vygotsky (1994) explains the fact that there is a clear problem or goal does not regulate or explain the process of development. Vygotsky (1994) further states that:

The child’s and the adult’s experiences are full of numerous incidents where, at certain stages of development, the individual is faced with unanswered questions, unresolved or incompletely worked out problems, or unattained or unattainable goals, without, however, any guarantee of success merely as a result of their being there. (p. 206)

Goal oriented activity is critical to set the process in motion, but it is the mediating use of the sign which regulates the process of development. It is through the use of mediated tools, in goal oriented activity, that man mediates his mental processes and masters his own behavior and thinking (Vygotsky, 1987).

As Vygotsky (1994) asserts, Ach’s method could not clearly explain the process, and the different stages the child goes through, in concept formation. Nonetheless, this method was the first research platform that comprehensively included objective material and a concept definition through the use of the word, as a sign.

The next method was the functional method of dual stimulation, developed by Sahkarov (1930). Vygotsky and colleagues used this method in order to carry out experimental research on concept formation in children, adolescents and adults. There was no prior instruction before experiments. During the study the task remained the same, representing the constant in the study, and what changed were the words (signs), as variables, given to the individual as needed in order to solve a task. This method, according to Vygotsky (1987), allowed the researcher to observe how the participants
used the words in order to solve a problem, and during this course, they observed the process and development of concept formation.

3.4 Gal’perin’s research agenda

Gal’perin (1969) further extended Vygotsky’s cultural-historical theory and concept formation research in the area of classroom instruction. As mentioned above, Vygotsky (1987) asserted that scientific concepts were to be developed in school settings. He also believed that instruction of scientific concepts should be organized to lead development. “The only good kind of instruction is that which marches ahead of development and lead it; it must be aimed not so much at the ripe as at the ripening functions” (Vygotsky, 1986, p. 188). In this way, organized instruction of scientific concepts would be aided through mediational cognitive tools and would thus take students’ zone of proximal development into account. For Vygotsky, the unit of analysis was the word which would function as a tool in the internalization process during problem solving, and would represent the link between the external and the internal world of consciousness. Concept definition was key in the development of scientific concepts, but knowing the definition would only establish the beginning of its development (Vygotsky, 1986).

As mentioned by Haenen (1996), Leont’ev (1978) believed that what was missing in Vygotsky’s model was the type of activity that made possible the link between the external and internal world, and he further developed and complemented Vygotsky’s ideas with his Activity Theory. Leont’ev’s theory analyzed the individual and the source of sociocultural activity under the principles of: activity, action, operation. Even though Gal’perin agreed on the need to include the concept of activity in Vygotsky’s model, in
opposition to Leont’ev, Gal’perin was merely interested in the individual’s “personalized activity” (Haenen, 1996, p. 80).

Under the foundations of Vygotsky’s theory of Mind and Leont’ev’s concept of activity, exclusively at the action level, Gal’perin developed a research agenda that would provide a concrete basis for the study of the internalization process of mental actions, missing in Vygotsky’s studies, while also taking into account the construct of the zone of proximal development. In addition, his research on mental actions would also take into account Leont’ev’s activity theory by considering actions, the middle ground of Leont’ev’s model, his unit of analysis.

Before he died, Vygotsky was not able to further his research agenda on concept development. The missing link in his research was the description of “what the process of mastery of scientific concepts should be after the concepts have been presented to students” (Karpov, 2005, p. 66). Gal’perin (1969) was able to further Vygotsky’s research on concept development by emphasizing the top-down connection between introducing systematic scientific concepts through a cognitive tool that would outline the procedures used by the student in problem solving activity and would lead development.

Gal’perin’s studies on the impact of cognitive development using quality cognitive tools had a clear goal: to improve teaching and learning practices. The empirical research on systemic-theoretical instruction carried out by him, students and colleagues (for more information on these studies see Carpay, 1974; Karpov, 2003; Talyzina, 1981) across educational levels and subjects has made “it possible to conceive of development as being contingent on the specifics of instruction” (Arievitch & Stetsenko, 2000, p. 70).
3.5 Gal’perin’s Systemic-Theoretical Instruction

Gal’perin’s Systemic-Theoretical Instruction approach is systemic because the student is provided with the necessary step by step cognitive assistance, in the form of a map, graph, chart, used as a learning tool, to orient him/herself during performance. And it is theoretical because the cognitive tool provided to the student includes the sequential theoretical knowledge needed in a teaching unit of study, in any subject.

Gal’perin’s research goal was to observe the cognitive transformation taking place internally (in mental actions) while the student was engaged in material actions during learning activity. From his studies of the systemic formation of mental actions and concepts, Gal’perin developed a set of four prerequisites in the teaching approach of the systematic formation: 1- the learning motive; 2- the orienting basis; 3- the properties of parameters of an action; and 4- the stepwise procedure.

The learning motive is a given in Gal’perin’s strategy. It is implied that in order to learn there must be an existent learning motive. Furthermore, it is assumed that “when the subject matter content is properly conceived and taught, there will be no paramount motivational problems” (Haenen, 1996, p. 124).

The orienting basis entails the presentation of all the necessary components for a student to carry out an action. OBA is the Orienting Basis of an Action and SCOBA is the Scheme of a Complete Orienting Basis of an Action. The OBA is the students’ current orienting basis and what the student has “at his disposal” in and within him/herself (Haenen, 1996, p. 134). The SCOBA is the desired orienting basis and material external cognitive tool to help the student orient his/her learning actions.
The properties of parameters of an action include four parameters: 1- level of appropriation; 2- degree of generalization; 3- degree of abbreviation; and 4- degree of mastery. Within the level of appropriation there are three different planes of an action: material, verbal, and mental. The first plane is material, it takes place when the student needs an external cognitive tool in order to carry out the action (a graph, calculator, map, chart, etc.). The second plane is verbal, it takes place when the student does not need the external tool but now uses his voice in order to help him/herself carry out the action. The third place is mental, it is when the student has internalized any external cognitive tool and can now perform without any external aide.

The degree of generalization takes place when the student recognizes the inessential properties of an action and begins using only the essential elements. The degree of abbreviation refers to the transition that takes place when at first the individual uses all the operations of an action, in extended version, and transitions to an abbreviated form. The individual abbreviates the operations of an action when identifying and using only the essential elements necessary to help him/her accomplish the action.

The degree of mastery has to do with the ease and pace in which an action is carried out, as well as with the action becoming automatic. The last and fourth component among the set of four prerequisites in the teaching approach of the systematic formation is the stepwise procedure. In order to ensure the full development of a mental action as it becomes general, abbreviated and mastered, the stepwise procedure encompasses the last three parameters described above in six different stages: 1- motivational stage; 2- orienting stage; 3- material stage; 4- stage of overt speech; 5- stage of covert speech; and 6- mental stage.
During the motivational stage the student learns about the learning goal and develops a learning motive. During this stage, he/she is provided with a material organizer (graph, chart, map, etc.) and learns about the learning actions to achieve learning goals. During the orienting stage, the student learns about the elements of the SCOBA and how it is used. During the material stage, the student engages in problem solving with the aide of a specific material organizer. During the stage of overt speech, the student finds him/herself in a transitional stage where she/he begins using self-directed speech as a cognitive tool, instead of the material organizer. During the stage of covert speech, the learning action goes from over to covert speech, where the student whispers to him/herself. During the mental and final stage, the student has internalized the material organizer and is able to solve problems at the mental level, where actions have been abbreviated and are performed at a high rate.

Among the advantages of this approach argued by Gal’perin (1989) are the following. The SCOBA makes it easy for students to apply systematic knowledge during problem solving without prior memorization. During the process from external to internal mental action involuntary memory, at work in practical activity, aids students in the internalization process. In addition, the information that the students must use is “represented schematically and broken down into parts; and the relations among the parts…are portrayed…in such a way that they can be easily followed and will ensure the rationality of the action” (Gal’perin, 1989, p. 72).

Another advantage is that the quality of the guidance and its systematic comprehensive content, which applies to all tasks, allows students to guide their own performance “systematically (not haphazardly!”) (Gal’perin, 1989, p. 70). In addition,
Gal’perin’s teaching approach allows students to go through the complete learning process from beginning to end. Students are not “oriented principally toward the final result” (Gal’perin, 1989, p. 68). On the contrary, one of the main tasks to accomplish is achieving full awareness of the subject matter under study not only of the general but also of the particular.

While Gal’perin’s Scheme of a Complete Orienting Basis of an Action (SCOBA) has been praised, “the system of stages has been one of the most frequently criticized” (Fariñas León, 2001, p. 261). However, as Fariñas León (ibid) argues, Gal’perin’s contribution resided not only on its capacity to orient mental actions and outline the teaching process (Haenen, 2001) but it is also a theory that helps explain the conditions that affect or enhance the learning process in heterogeneous classrooms.

Furthermore, Fariñas León (2001) cautions that Galperin’s learning theory’s “is not meant to be a hypothesis of the learning process that should be subject to classical hypothesis-testing experiments in which one tries to measure direct relationship between teaching methods and learning outcomes” (p. 263). She further states that Gal’perin’s learning theory is ideal to interpret singular learning cases.

Regarding the apparent rigidity in the system of stages, Haenen (2001) explains that Gal’perin “abandoned the idea of a strict sequence of steps in the teaching-learning process and started to emphasize the distinctive elements that form the basis of the process” (Haenen, 2001, p. 161). He further states that the parameters of an action that include the level of appropriation, degree of generalization, degree of abbreviation and degree of mastery, “may be abbreviated, combined together or even skipped” (Haenen,
2001, 161). This is so as mental actions are contingent upon the students’ prior knowledge, the type of learning actions and specific activities.

According to Gal’perin’s learning theory, every mental action is guided by a specific orienting basis contingent to its object of study, an intended goal and its systematic quality mental actions. When implementing Gal’perin’s learning theory it is important to take into account that the stages of mental actions depend on its object of study, its orienting basis, the intended goal of the action, the quality psychological processes designed by the instructor which are required to learn specific theoretical concepts, students’ prior knowledge and the learning goals of the teaching unit and general program.

3.6 Concept-based instruction in language classrooms

Vygotsky’s (1978) cultural-historical theory has inspired and contributed to the creation of literacy programs based on Sociocultural tenets at different levels and with a different focus mostly in Russia (Gal’perin, 1969, 1992; Markova, 1979; Talyzina, 1981 among others), but also in other parts of the world (Kozulin, Ageyev, Miller and Gindis, 2003; Hedegaard, 1995). In the United States, L1 literacy projects in and out of school have been carried out by Cole (1996) and Moll and Gonzalez’s (1994; González, Moll & Amanti, 2005) among others.

Vygotskian research on foreign languages has been carried out by Lantolf, his students and colleagues (Frawley & Lantolf, 1985; Lantolf, 2000; Lantolf & Thorn, 2006; Lantolf & Poehner, 2008; Negueruela, 2003; Ferreira, 2005) at the college level. This research has and keeps informing the Applied Linguistics field about the cognitive,
social and affective advantages of applying theoretically based systematic pedagogical implementations based on Vygotsky’s (1978) theory of Mind.

It is important to note that contrary to concept formation in the first language, which is empirically based in the pre-school years and theoretically based during the school years, the process of foreign language learning in school settings begins with the development of scientific concepts. There are important developmental studies teaching foreign language grammatical categories to Russian speakers (Carpay, 1974) under Gal’perin’s STI principles. The first study implementing STI in a foreign language classroom in the United States is Negueruela’s (2003).

In Negueruela’s (2003) project, Gelperin’s step-wise procedure was adapted and its six stages were considered flexible. Following STI three main tenets: finding a unit of instruction that provides a complete orientation for the subject matter, materialization of that unit of instruction through didactic aides, and using verbalizations for internalization purposes, Negueruela (2003) designed data analysis procedures, emerging from SCT tenets, to connect concept based instruction (CBI) to L2 development. This, as he argues, bridges the gap between instructional processes and L2 research methodology.

Negueruela (2003) analyzed three sets of data: definition, discourse and verbalization, before and after CBI for aspect and after CBI for mood, from twelve college students enrolled in an advanced level Spanish language class. His research goal was to observe students’ development of Spanish aspect, verbal mood and verbal tense through the teaching and learning of grammatical conceptual meanings. The learning tools used were theoretically sound flow charts based on meaning intended by the speaker.
Negueruela (2003) argued that by providing students with appropriate grammatically conceptual meanings in connection with grammatical form for students to use in open communicative activities would from the very beginning empower students. This is so as students would develop agency by selecting grammatical aspect or mood based on intentional conceptual meaning in the language, instead of limiting knowledge to textbook formulas behind rules of thumb and fill-in-the-blank exercises. Furthermore, he hypothesized that organized systematic instruction would promote learning leading development, and that students’ theoretical concept formation would go from complex to concepts.

His results from the definition data showed that students’ definitions were not theoretically functional and thus did not provide coherent and complete orientation for learners, except for one of the students’ definition of aspect. Most of his student definitions were initially functional. After CBI, all the participants’ definitions were semantically based. For aspect, 9 out of 11 participants’ definitions had potential theoretical functionality, in regards to mood all of them showed this same potential.

It is important to point that since these students were at an advanced level, they all had a certain degree of prior knowledge of mood and aspect, and as Negueruela (2003) found from students’ definitions of mood and aspect, they all had learned both of these grammatical features through rules of thumb in order to guide performance.

In his analysis of discourse data (written and oral), Negueruela (2003) observed improvement after CBI, especially in written performance, among all of his students regardless of already internalized rules of thumb in previous classes (Negueruela, 2003, p. 391). As he expected, and also as Pavlenko (1999) asserted: even though students are
able to provide the definition of a certain grammatical aspect, it does not mean they have control over its functionality. Subsequently, Negueruela’s (ibid) participants’ conceptual definition of aspect or mood did not directly reflect their functional use of grammatical features. These two lines of development (concept and form) are dialectical and, as Negueruela (2003) asserts, “run in opposite directions so that when finally meet they allow for the coherent and consistent emergence of linguistic forms connected to thinking for speaking in communicative performance” (p. 392).

His results showed noticeable improvement in oral and written performance at two different times. Regarding aspect in written performance, during time 1 (before CBI), incoherent instances to express aspect amounted to a 38%; in time 2, there were 7%. Even though all of the students improved in their understanding of theoretical concept, the connection between theoretical concept and grammatical features within students, however, was only realized to a certain degree of control by two students, the other ten were not able to achieve the same mastery level.

With regard to mood, in written data, incoherent instances to express modality in noun clauses at time 1 were 30%, and 6% at time 2. The numbers for adjectival and adverbial clauses remained the same. For oral data regarding aspect, at time 1 the instrumental used to elicit oral performance (COSA) did not elicit aspect in the imperfect, the amount of data from time 2 is much lower than written data. Nonetheless, preterit amounted a 97% of coherent use and 45% of coherent used in the imperfect.

In terms of oral data regarding mood, there were few elicitations of complex sentences. Nonetheless, there was improvement among a reduced number of noun
clauses: 98% of coherent use of the indicative in complex sentences, and 62% of coherent use of the subjunctive in complex sentences.

The analysis of verbalization tasks in which students use semantic reasons for their use of grammatical forms throughout two verbalization tasks for aspect, and three for mood, showed the initial process of development from perceptual to conceptual reasoning. The students’ conceptual development was initiated but not consolidated at the end of the course. However, overall student development of modality was evident from time 1 to time 3.

Regarding aspect, Negueruela (2003) believes that two verbalization tasks were not enough to show the process of development, and that students did not have enough instructional time. Results show that learners have a higher control of grammatical features than conceptual meaning-based understanding. The percentage of total number of explanations categorized as functional (coherent form and context) was 94%. The percentage of coherent theoretical functionality (which includes both coherent semantic explanation and grammatical form) in verbalizations for mood and aspect was 59%. Negueruela (2003, p. 437) calls this “empty formalism” since they are able to use the form in some contexts but do not understand the meaning deployed in them.

Negueruela’s (2003) project is very revealing in regards to the connection of theoretical concepts, new ways of thinking that prioritize agency and L2 development. As he states “development is not about the emergence of morphology, but about the emergence of agency through meanings”. In this way development “does not try to push development forward, it tries to pull it up to higher levels of creativity, awareness and control” (Negueruela, 2003, p. 331).
In a different study investigating CBI and L2 development, Lapkin, Merril and Ibtissem (2008) observed the effect of verbalizations (self-explanations) in developing the concept of voice in French. Their participants were six students who were taking an intermediate French class at the university level. Data collection took place during two sessions. The first lasted 80 minutes and included a warm-up, a pretest, self-explanation, a break and an immediate posttest. The second session lasted 20 minutes and included a delayed posttest. The warm up stage was intended to familiarize students with the material. During this stage the researchers explained French determiners with the use of cards in which the explanation given was written with large typeface. These cards were shown to them during the explanation phase. The students read each card aloud and then commented on it, directing their comments to themselves. Shortly after students were asked to explain indefinite, definite and partitive articles, identified in boldface type, in a short text.

During the pretest phase, students were given the part 1 of a text which they had already read seven months prior in their French class. Students were then individually asked to read aloud through text and comment on the form and meaning of the thirteen bold verbs. The researchers then asked participants to define the concept of voice. Students’ answers were prompted by metalinguistic terms of active, passive, middle, agent and patient; along with questions aiming at assessing prior knowledge.

During the self-explanation stage, the researchers provided advance organizers with the concept of voice and instructions. Also, 36 cards with explanations on voice were given to them, along with a list of examples in the form of sentences. Students had to read aloud the information on the cards to promote think aloud time and explain to
themselves. The information was divided in different cards as to ensure understanding on each piece of information. Whenever students needed scaffolding, they were provided with prompts in the form of questions to guide understanding. A break followed the self-explanation stage.

The immediate posttest consisted of a text with bold verbs. Students had to explain the forms expressing active, middle, and passive voice. This was followed by the definition of the concept of voice. Scaffolding was provided through metalinguistic terms and cards, whenever needed.

During the second session, one week later, students were given the part 2 of the text included in their French class textbook. This time some verbs were in infinitive form and students had to fill in 11 blanks. Students were asked to tell researchers what they were thinking as they were filling in blanks. This was followed by a time when students provided the definition of voice. Metalinguistic words were provided when necessary.

The results from Lapkin, Merril and Ibtissem’s study (2008) show that even with such a short instructional period, CBI along with verbalizations proved to be useful for some students. Lapkin, Merril and Ibtissem’s study (2008) mention that not all of them were comfortable verbalizing grammar concepts, or understood the material at the same conceptual level. Nonetheless, their article show that students more comfortable verbalizing reached a higher level of understanding or self-monitoring leading to modification of performance.

In their study, Serrano-Lopez and Poehner (2008) focused on Gal’perin’s stage of materialization, which entails the construction of learning-didactic theoretical models. Serrano-Lopez and Poehner (2008), following Talyzina (1981), state the difference
between material and materialized objects. In the first, the object can be physically manipulated. In the latter, the object is materialized in the form of charts, graphs, etc. Serrano-Lopez and Poehner’s (2008) focused on student materialization of theoretical knowledge in concrete form through 3-D clay models. The main learning goal of these models was the conceptualization of Spanish locatives whose meaning did not correspond to students’ L1 (For more information see Serrano-Lopez, 2003). Results from their pre-test, post-test and delayed effects showed that CBI and 3-D clay models offered students a deep understanding of the meaning of locatives along with long lasting effects of knowledge learned.

Another study using CBI and modeling is Ferreira and Lantolf’s (2008) who investigated theoretical thinking, meaning-making and writing improvement through a genre based approach in a ESL freshman composition class. Among the L1s spoken by the participants of the study were Spanish, Chinese, Vietnamese, Korean and all of them began studying English as teenagers.

In their study, the researchers combined a concept-based approach to target cognitive processes in the steps of Davydov (1999), a contemporary of Gal’perin, and Systemic Functional Linguistics’ elements of field, tenor and mode (SFL)\(^1\).

As the authors state, Davydov’s (1999) approach is known as the Movement from the Abstract to the Concrete (MAC) teaching approach. According to this approach, students learn through the systematic conceptual knowledge of a subject matter, and then they are encouraged to process and internalize this knowledge in concrete contexts tapping their interests. An essential part of this approach is the development of germ-cell

---

\(^1\) Systemic Functional Linguistics is an approach to teach writing based on language, register, genre and ideology. This approach values the collaborative perspective of writing and situates language, genre and ideology within a social context whose discourse follows a specific intention (Martin, 1989; 1993).
models that represent the concrete depiction of an abstract concept along with its inherent conflicts.

In their study, Ferreira and Lantolf’s (2008) introduced and presented the germ-cell model of genre. After this, students had to develop their own model, along with models to show their understanding of the genre studied in the course. Students reworked their models three times throughout the course. This took place during class and in one-on-one conferences with students. Students first had to develop their model to depict their understanding of the genre, then after going over examples of such genre, their models had to be modified. Students also had to apply their germ-cell models in problem solving activities to explain similarities and differences in use between genre and individual cultures.

In addition, students also had to reflect on their work. Reflections, as Davydov’ states (1988d), is an essential part of activity. This is so as it is in activity that the students identifies the essential qualities of the subject under study, plans the future activity and reflects on its process and results. The students in Ferreira and Lantolf’s (2008) recorded their study procedures, results, impressions, etc. in writing logs. However, the IRB of their institutions did not allow them to read student logs until the course was over, which may have had a negative effect on their learning as they may not have gotten appropriate instructor feedback or guidance based on specific needs, as reflected on their writing logs.

Correlations between two pre-course and after-course texts, and evaluations of these texts by independent readers showed improvement in theoretical thinking. As mentioned by Ferreira and Lantolf (2008), “theoretical thinking developed at the level of
the conceptualization of genre but not at the level of a tool to write”. The authors mention that contrary to Karpov’s study (2005), in which second to fourth grade elementary students taught through systemic theoretical instruction outperformed the group taught through traditional methods, their study did not have a rate level of positive results. The students taught through CBT in Karpov’s (2005) not only did better at problem solving but found the optimal solution to solve certain problems.

Most of the participants in Ferreira’s and Lantolf’s (2008) study resisted their writing teaching approach. The authors mention that this was due to students’ focus on empirical and procedural use of language to meet their individual writing purposes. The authors (Ferreira and Lantolf, 2008) further state that:

Students in the present study had a long history of traditional, empirically-based schooling where learning to write meant following models for how to produce specific kinds of texts rather than approaching the writing process in a systematic and theoretical way. (p. 310)

It is important to note that Ferreira and Lantolf (2008) did not use verbalizations in the form of private speech to help students orient themselves, understand and internalize the correct version of their germ-cell model. This is an important limitation since, as mentioned above, verbalizations help regulate the process of development. In addition, verbalization data help empirical research to explore the conditions that affect or enhance the learning process in heterogeneous classrooms.

The present study follows Gal’perin’s (1989) Systemic-Theoretical Instruction approach and Negueruela’s (2003) research design. Data collection includes the use of materialized concepts, student conceptual definitions, discourse data, and student verbalizations to aide in the internalization process. The main focus is on the
development of awareness and control of the concept of modality in a college-level Heritage language classroom.

3.7 Conclusions

As Lantolf (2007) asserts, scientific knowledge alone is not “sufficient for successful learning” (p. 38). According to Vygotsky’s Sociocultural Theory of Mind, human beings achieve higher thinking levels through psychological tools mediating the individual’s knowledge and his/her potential development to be acquired in meaningful communication through language. Inner, private and social speech is critical for self-regulation as it provides opportunity for orientation, understanding, monitoring, reflection and adjustment.

This study is concerned with the development of awareness and control of the theoretical concept of mood through a mediational psychological tool. It is hypothesized that psychological tools used in goal-directed action through the use of verbalizations for intellectual orientation will bring about “the formation and acquisition of individual consciousness” (Davydov, 1988d, p. 172). This dissertation follows the premise that concepts, their meaning and function, cannot be appropriated through memorization or associative connections (Vygotsky, 1987) but by more complex, higher level thinking. Furthermore, it is assumed here that a linguistic system with its concepts, in the primary and/or secondary language (English or Spanish), is already in place. Therefore, through a foreign/heritage class the student will further generalize scientific concepts, which were already generalized to a certain extent, in a first or heritage language.
Most Heritage language learners (See chapter 2), due to lack of access to their L1 in academic settings have different levels of empirical knowledge of the language. As argued by Davydov (1984):

Empirical knowledge which is based on observation, reflects only external traits of objects and for this reason completely relies on perceptual conceptions. Theoretical knowledge which is based on the transformation of objects reflects their internal relations and interconnections. In the reproduction of an object, in the form of theoretical knowledge, thinking exceeds the limits of perceptual representations. (p. 21)

Students, as Davydov (1988d, p. 193) asserts, “have to be provided with materials, the mastery of which forms in them contentful abstractions, generalizations and concepts” [italics in original]. Concept formation requires a developmental process that goes from general to abstract, and from abstract to concrete. In this process, the student meets, reflects and solves contradictions with the aide of instructional cognitive tools that help him/her transform material to cognitive activity. This is in opposition to descriptive methods that do not require abstractions in the true sense, but that are based on memORIZATION of rules to guide students’ performance.

Considering that cognitive development takes place when meaningful signs and symbols are used as cognitive mediators and eventually incorporated into one’s thinking (Gredler & Claytor Shields, 2008, p. 29), any formal setting where learning is based on the teaching of scientific concepts should incorporate quality psychological tools designed to orient learning.

Gal’perin’s Systemic-Theoretical Instruction (STI) follows Vygotskyan cultural historical developmental tenets. It focuses on the teaching of scientific concepts through symbolic mediation and it emphasizes verbalizations to orient cognition and promote self-regulation. Moreover, STI takes into account procedural knowledge (Lantolf, 2007)
as it outlines teaching and learning step by step procedures in order to orient students learning and instruction.
CHAPTER 4
METHODOLOGY

4.1 Introduction

In this project I am studying the development of modality through Sociocultural Theory (SCT) and Systemic-Theoretical Instruction (STI) principles (Gal’perin, 1969; Vygotsky, 1978, 1986; Haenen, 1996) in Heritage learners of Spanish who are at different levels of the bilingual continuum.

This chapter is organized as follows. Section 4.2 explains the need to offer Heritage language classes. Section 4.3 presents the research questions guiding this study. Section 4.4 provides information about the course. Section 4.5 provides information about the participants of the study. Section 4.6 offers information about data collection and data sources. Section 4.7 presents information about data analysis procedures. Section 4.8 concludes this chapter.

4.2 Heritage language learners: pedagogical considerations

In the United States Spanish is often kept alive within the family during the first three generations (Veltman, 1983). The third generation generally understands the language but does not actually speak it. According to Bernal-Enríquez (2000), among Spanish speaking families in New Mexico and Southern Colorado, there is a marked loss of language skill by the third generation. There is a strong relationship between Spanish use in the home and with friends, and an individual’s level of ability in Spanish. At what age one begins to learn Spanish is also an important factor (Wong Fillmore, 1991). As
mentioned by Bills, the acquisition of the dominant language “is not in itself an
indication of loss of the ethnic language […] it is, of course, a necessary precondition for
such loss” (Bills, 1997, p. 269).

The fact that English (the dominant language) is the sole language of instruction,
and socialization, in schools facilitates mother-tongue loss or attrition. This is due not
only to linguistic processes as a result of language contact, but also to extralinguistic
factors affecting language choice. This may occur when importance is placed on speaking
the dominant language in order to achieve financial success, and to facilitate linguistic-
cultural assimilation. But linguistic assimilation has its cost: the sooner Bernal-
Enríquez’s participants learned English the less skillful they were in Spanish. Shifting
from Spanish to English, eventually leads to daily use and preference of the English
language. This language shift is gradual and, in the midst of its development, speakers
find themselves at a different stage of the bilingual continuum (Silva-Corvalán, 1990).

Literacy, in the minority language, according to Tse (2001), “appears to be the
first victim of intergenerational language shift” as a consequence of reduced exposure to
reading and writing in Spanish (p. 258). Regarding Spanish-English biliteracy, Krashen
(2000) and others (Cohen & Horowitz, 2002; Snow et al, 1998) affirm that teaching
literacy skills to Heritage speakers in their mother tongue is of great advantage to them.
Exposing students to a good education in their first language helps them excel in their
second language development. L1 literacy skills transfer to L2 offering a “shortcut” to
second language literacy and provide maintenance and competence in their mother
tongue. However, this has proved very difficult to put into practice as “children of first-
generation Hispanic immigrants acquire Spanish at home, but most of them gradually
become dominant in English as they go through either a transitional bilingual education programme or an English immersion programme” (Silva-Corvalán, 1994, p. 10).

Grammatical simplification in bilingual speakers (See chapter 2), may be due to incomplete acquisition of Spanish, or to attrition and loss of an underused linguistic system. Silva-Corvalán (1990) identified nine stages representing the simplification and loss in the Spanish verbal system of her participants’ proficiency continuum. The result of the process of simplification is reduction or loss of forms or meanings. Nonetheless, the need to communicate among family and community members in the Heritage language allows the oral variety of such language to be transmitted to other generations.

An important factor to consider with Heritage language speakers is that they may speak different linguistic varieties, stigmatized or not, transmitted to them by their parents and/or community members. These types of bilingual communities where Spanish is the oral language and English is the prestige written language live in a state of diglossia. Therefore, as Valdés (1978) states, Heritage language classrooms must take into account:

1) their social and regional dialects (which often reflect the casual and popular language characteristic of the less-educated classes of the Spanish-speaking world); and 2) their contact dialects (produced by the alternate use of English and Spanish and consequent interference between the two languages). (p. 103)

The implications of relying solely on oral proficiency for written compositions are many. According to Colombi (1997),

las diferencias primordiales entre estas dos formas de comunicación son el alto nivel de abstracción y elaboración requerido en la comprensión y producción del discurso escrito. La audiencia generalmente no comparte el contexto físico y emocional de la persona que escribe el mensaje y, consecuentemente, no puede darle ningún tipo de feedback acerca de la efectividad del proceso de comunicación. (p. 175)
Heritage language classrooms must recognize the oral abilities of students. The pedagogical goal is not to get rid of a dialect or a language variety, the objective is to teach the rest of the registers necessary to be able to communicate effectively in a variety of contexts requiring different registers. As Valdés states (1989), “while some attention may need to be given to the stigmatized feature present in students’ regional and/or class varieties, the objectives of classes for such speakers must include the development of their overall proficiency in the Spanish language” (p. 392) in order to afford students the linguistic abilities of life-long learners.

The relevance to place Heritage language learners in language courses especially designed for this audience has been mentioned by Valdés (1981, 1995), among others. The difference in prior language knowledge between a group of L2 students and a group of HL (Heritage language) learners demands the division of groups in order to target specific learning needs. Among some pedagogical recommendations found in existing research (Alarcón, 1997; Aparicio, 1997; Carreira, 2000; Cho and Krashen, 1998; Draper and Hicks, 2000; Faltis, 1990; García y Otheguy, 1997; Garretón, 1995; Giacone, 2000; Leone, 1997; Lynch, 2003; Rodríguez-Pino, 1997; Romero, 2000; Schwartz, 2001; Solé, 1981; Sylvan, 2000; Ugarte, 1997; Valdés, 1995; Valdés, 1981; Walqui, 1997) on the teaching for Heritage learners are the following: 1- to obtain background knowledge in order to target affective and academic needs; 2- to recognize that both instructor and students are sources of knowledge; 3- to consider the relevance of teaching content in students’ lives and their individual interest; 4- to incorporate community knowledge and participation into the classroom when appropriate; 5- to integrate the expansion of vocabulary and grammar along with cultural and sociolinguistic themes; 6- to validate
linguistic dialectical variation; 7- to teach critical thinking skills to study the situation of minority groups among others; 8- to promote collaborative learning in order to support any range of linguistic student proficiency; 9- to implement authentic assessment, and 10- to facilitate metacognitive learning that can be re-applied in other areas of students’ lives.

Heritage speakers, who are able to develop and maintain their mother tongue at home, will most likely need to learn and expand their use of registers in a variety of contexts outside of the family domain. Access to academic literacy is necessary in order to expand speakers’ lexical repertoire and learn other linguistic modes, genres and registers. A responsive curriculum in a Heritage language class offers an important bridge between the linguistic practices carried out at home and theoretical-conceptual thinking aimed at school.

4.3 Questions guiding this study

4.3.1 First question

The first question guiding this study emerged out of a pedagogical concern while I was teaching Spanish verbal mood, using a textbook designed for foreign language learners, to two Heritage language learners at the high-school level. Surprisingly, even though I dedicated a good amount of time on the Spanish subjunctive (memorization of conjugations and rules of use), these students kept using the indicative in contexts where the subjunctive was appropriate. Moreover, they rejected some of the textbook prescribed uses of the subjunctive in contexts where they believed it should be indicative. At that time, I did not consider their sociolinguistic context and their empirical knowledge.
This dissertation follows the premise that in a Heritage language class where learning is based on understanding meanings through conceptual categories, students will develop awareness and control of the concept of modality with the aid of an orienting psychological tool. Furthermore, it is hoped that students’ conceptual development process will help students connect scientific concepts with empirical knowledge in a dialectical form where scientific meets empirical knowledge and vice versa. This study hypothesizes that Heritage language learners will further generalize scientific concepts, which may have already been generalized to a certain extent in a Heritage or a second language. As mentioned in chapter 2, scientific concepts are characterized by the individual’s conscious awareness of their meaning, voluntary attention and logical thinking (Vygotsky, 1987, p. 184). While everyday concepts arise out of the child’s concrete daily experiences, scientific concepts are learned in school.

Most Heritage language learners, due to lack of access to their L1 in academic settings have different levels of empirical knowledge of the language. Concept formation requires a developmental process that goes from theoretical to empirical, from general to abstract, and from abstract to concrete. In this process, the student meets, reflects and solves contradictions with the aide of instructional cognitive tools that help him/her transform material to cognitive activity. Therefore, the second question guiding this study is focused on development.

4.3.2 Second question

The second question guiding this work is about cognitive development at the conceptual level. In this study, I consider the concept to be the unit of analysis. I propose that by following SCT, STI pedagogical principles and Negueruela’s (2003) didactic
model of Spanish verbal mood, I will be able to observe in students’ practical activity emerging development of the concept of modality in Heritage language learners, and assess to what extent STI fosters development of modality in Heritage language learners.

In this study I do not focus on the results or the end goal, but on the emergence of development in practical activity. Therefore, I do not claim a cause-and-effect result. The main focus is on the mediational use of the sign in goal-directed activity, and on observing the relevance of verbalizations to regulate the process of development. I hypothesize that organized systematic instruction in the form of STI will promote learning leading development (Negueruela, 2003).

4.3.3 Research questions

By relating empirical language data to theoretical issues and Concept-based Instruction to Heritage language development, this study further researches how STI-based formal instruction can help Heritage language students develop conscious awareness and control of the concept of verbal mood in Spanish.

This project has two concrete objectives: I- to investigate in what ways does Gal’perin’s Systemic-Theoretical Instruction (STI) promote the internalization, control and awareness of the concept of verbal mood, as reflected in students’ course work’s research data (1- written definition, 2- verbalizations, 3- written discourse). II- to examine how the concept of verbal mood emerges and proceeds as reflected in students written and verbalization data.
4.4 The course

This study is set in a Heritage language classroom at a large public suburban university in the Northeast part of the United States. Because the Spanish-speaking population does not represent a significant amount of the general population in the university, there are no tracks for Heritage language speakers. This is the only one-semester course offered at the university to Heritage language learners and the course name is: “Spanish for Native Speakers.” Students are generally referred to take this course by their advisors, or if motivated by personal interest, their attendance is approved by the instructor.

This course was taught twice a week and met Tuesdays and Thursdays from 1:00 p.m. to 2:15 p.m. It was designed after the pedagogical recommendations found in existing research mentioned. Its instruction specifically targeted the needs of Hispanic bilingual students who spoke Spanish at home but used English as a dominant and school language. One of the main objectives was to help students develop linguistic awareness and control of meanings conveyed by language structures. The three primary general objectives as stated in the syllabus of this course were: 1- to build upon and further develop communicative abilities in Spanish, 2- to develop a sophisticated understanding of important issues pertaining Hispanic cultures in the United States, and 3- to study the Spanish language from orthography to dialectical variation. It was a communicative oriented program that aimed at developing spelling, grammar, vocabulary and discourse skills in contextualized communication.

Two textbooks were used in this class. The first was Nuevos Mundos: Lectura, cultura y comunicación (Ana Roca, 2005) along with its accompanying workbook.
Grammatical sequences did not follow the structures of the assigned textbooks. The teaching sequence had to be modified in order to meet teaching goals and functional needs. The pedagogical sequence for grammar instruction was organized according to the communicative function needed for the descriptive, narrative and argumentative essays students had to write. The general grammar focus before the first essay was present tense, for the second essay was aspect and for the first essay was modality (See appendix A for a copy of the syllabus). STI didactic models were used throughout the semester. However, the present study only focuses on the implementation of STI to foster the development of modality. Writing instruction followed a writing-as-process approach.

The textbook used for writing instruction was *Composición: Proceso y síntesis* (Valdés et al, 1999) and its accompanying workbook.

The instructor-researcher was the same person. In compliance with the University’s Institutional Review Board, on the last day of classes a colleague of the instructor-researcher gave students the inform-consent form to read and answer student questions about the project. Students were told that by signing the informed-consent form, they agreed to allow the instructor-researcher to use their class work produced during the semester. They were told their participation was voluntary and that their participation would not impact their grade in any way. They were also assured anonymity. The instructor-researcher did not know which students were participating until after grades were turned in. All students signed the form. However, since the instructor-researcher was investigating the development of conscious awareness and control of the concept of modality, only students who attended the modality teaching unit
and completed the work designed to aid development were considered for inclusion. Only six students met this criterion.

4.5 Participants

The participants of this study are 6 Heritage language learners. One is first generation and arrived to the United States at the age of 9. Five of them were born in the United States and are considered second generation since their parents were born outside of the United States. Because each participant has different background knowledge and experience with Spanish along with different interests, goals and motives to use the language, I will provide background information for each student participating in this project, as it was reported by each of them on the background information sheet.

The background questionnaire intended to gather sociolinguistic and pedagogical information about each student. Among the questions asked were their place of birth, experience with the language, language use domains, language maintenance strategies, interest in the course, expectations, previous studies in Spanish, future use of the language and important aspects they would consider important when studying a language.

4.5.1 Participant # 1

Participant 1 was a junior with a major in Hospitality and Tourism and a minor in Spanish. She was born in the United States and was taken to a Spanish-speaking country as a baby. She lived in a Spanish-speaking country for seven years and then moved back to the United States when she was 8 years old. She reported that she speaks Spanish with her parents and relatives and tries to maintain her Spanish language speaking to her sister and aunt who grew up in a Spanish-speaking country. When she was asked how
important Spanish was for her she said: “Very important. It’s what makes me who I am. I embrace it.” She had only taken one other course at the college level before this course. She said she took this course to “make [her] Spanish more fluent and accurate.” She expected to learn as much as possible from the course. She planned to continue taking more Spanish courses and the way this course related to her future professional life was to “better [her] opportunity to become more successful.”

4.5.2 Participant # 2

Participant 2 was a junior with a major in Business Management and a minor in Spanish. She was born in the United States. Both of her parents were of Hispanic origin. She said she spoke Spanish with her grandmother and one of her friends. She had taken three other courses at the college level, and studied Spanish throughout high-school. To the question asking how important Spanish was for her, she only wrote one underlined word and used three exclamation marks: “Very!!!”. She said she maintained her Spanish on a daily basis by speaking to her friend and that she was taking the course to improve her Spanish. She also said she planned to continue taking Spanish courses after this course. When asked in what ways this course related to her professional life she wrote: “To improve and maintain. It is my heritage so why not use it in the work force when needed.”

4.5.3 Participant # 3

Participant 3 was the only student who answered all the questions in the background questionnaire in Spanish. This shows confidence in her proficiency and experience with the language. She was a senior with a major in Psychology and a minor
in Spanish. She was born in the United States and at the time of the study had not been to a Spanish-speaking country. Both of her parents were of Hispanic origin. She reported that she speaks Spanish with her parents and grandparents. To the question of how important Spanish was for her she wrote: “Es muy importante que no se me olvide el español” (It is very important to not forget Spanish). When asked how she maintained and developed her Spanish language skills on a daily basis she responded: “Miro una telenovela, uso el diccionario, y hablo con mi abuela, y tomo cursos de español” (I watch a soap opera, I use the dictionary, and I talk to my grandmother, and I take Spanish courses). She said she enrolled herself in this course to complete her minor requirements and wanted to be prepare interact with Spanish monolinguals in her future career.

To the last question asking to describe her experience studying Spanish she wrote:

Lo mas importante para mi es que yo pueda hablar el español correcto y escribirlo sin errores. A veces tengo que pensar en inglés para traducir lo que oí en español, pero creo que aprendí mucho en las otras clases y lo sé mejor que antes.

The most important for me is that I am able to speak correct Spanish and to write it without mistakes. Sometimes I have to think in English to translate what I heard in Spanish, but I think that I learned a lot in the other classes and I know it better than before.

4.5.4 Participant # 4

Participant 4 was a senior with a Major in Spanish and a Minor in Economics. She was born in the United States and moved to a Spanish-speaking country to study high school there, then moved back. Both of her parents were of Hispanic origin. She spoke Spanish with her parents, with her siblings, relatives and in her Spanish classes. She said Spanish was “very important” because she wanted “to be able to speak it better.” She had

2 Spelling, orthographic or typos in students’ texts were not corrected.
previously taken six Spanish courses at the college level. She said she would continue
studying Spanish after this course and that Spanish was important for her professional life
because she wanted to work in her own community. To the last question asking to
describe her experience studying Spanish she wrote: “I’ve learned many more words
taking Spanish classes…I’ve also learned to express myself better.”

4.5.5 Participant # 5

Participant 5 was a senior with a Major in Psychology and a Minor in Spanish.
She was born in the United States. Both of her parents were of Hispanic origin.
Participant 5 took the questionnaire home, typed her answers and gave them to me in
printed form. The following is what she wrote.

I never really spoke Spanish at all but I was always surrounded by the language at
home and church. My parents and extended family members all speak it fluently.
The Spanish language was never really something I cared about much growing
up, however at this point of my life, Spanish is everywhere and it’s important to
know, both for expanding my marketable to future employers, and learning to
embrace a culture I should’ve long ago.
I’m currently enrolled in a Spanish literature course, I took a Spanish writing
course and I’ve taken Spanish course through high school.
I’m trying to develop Spanish language skills by minoring in the subject and
exposing myself more to the language.
I’ve never lived in a Spanish speaking country, but I have traveled to…, on
numerous occasions in my lifetime for about 2 months at a time, each time I went.
I would love to study abroad in Spain for a summer, if the opportunity should
present itself.
I need (to study this course) for my minor.
(In this course I expect) to improve my understanding of the Spanish language
and grammatical structure.
I’m more of an audio learner than a visual learner. So the professor will have to
repeat important point over and over again until I can get it. I understand the
language, but the structure and grammatical rules are so overwhelming for me at
times.
4.5.6 Participant # 6

Participant 6 was a senior at the time of the study. Her Major was Political Science and her Minor was Sociology. She was born in a Spanish-speaking country and moved to the United States when she was 9 years old. She did not study in a bilingual program. Both of her parents were of Hispanic origin. At the time of the study she reported that she spoke Spanish at church, at home with parents, with grandparents, other relatives, with friends, at work and on social occasions. She said Spanish was “very important because it is my first language, and I speak it at home with my family”. The only Spanish course she took before was a Spanish conversation class in her freshman year. She said she tried to speak Spanish “as often as possible” with her family members and other Spanish-speaking people.

She said she registered in the Heritage speakers’ course so she wouldn’t forget how to write in Spanish and to learn to spell better. Her expectations of the course were “to practice my writing more, and know when to use pronunciations”. When asked if she was planning to continue studying Spanish after this course, she wrote: “most likely, if I decide to be a translator for the government”. When asked to describe her study of Spanish or other languages she wrote:

I already know the language well but I think that taking this course will enable me to work on my weak points that I deal with when writing and speaking. I think that the professor will be able to point out many of the mistakes I am making, and help me to correct them.
Table 4.1: Summary of participants’ interest and reasons for studying Spanish

<table>
<thead>
<tr>
<th>#</th>
<th>Importance of Spanish</th>
<th>How student maintains and develops Spanish language skills in daily basis</th>
<th>If student studied Spanish in a Spanish-speaking country, and for how long</th>
<th>Reasons for enrolling in this course</th>
<th>Expectation of course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“Very important. It’s what makes me who I am. I embrace it.”</td>
<td>“Talking w/my sister and aunt.”</td>
<td>“Yes…I only did 2 yrs of schooling.”</td>
<td>“Make my Spanish more fluent &amp; accurate.”</td>
<td>“Learn as much as possible but have fun also.”</td>
</tr>
<tr>
<td>2</td>
<td>“Very!!”</td>
<td>“I speak to my friend.”</td>
<td>“No.”</td>
<td>To improve my Spanish.”</td>
<td>To improve.</td>
</tr>
<tr>
<td>3</td>
<td>“Es importante que no se me olvide el español.”</td>
<td>“Miro una telenovela, uso el diccionario, y hablo con mi abuelo, y tomo cursos de español.”</td>
<td>“No.”</td>
<td>Para mi minor.</td>
<td>“Espero que sea divertido y que aprendemos mucho.”</td>
</tr>
<tr>
<td>4</td>
<td>“Very important. I want to be able to speak it better.”</td>
<td>“Talking to my mom and friends.”</td>
<td>“Yes...for 5 months. I went to highschool there.”</td>
<td>“It’s a requirement for major”.</td>
<td>“I expect to speak the Spanish language better.”</td>
</tr>
<tr>
<td>5</td>
<td>“…both for expanding my marketable to future employers, and learning to embrace a culture I should’ve long ago.”</td>
<td>“I’m trying to develop my Spanish language skills by minoring in the subject and exposing my self more to the language.”</td>
<td>“No.”</td>
<td>“I need it for my minor.”</td>
<td>“…to improve my understanding…”</td>
</tr>
<tr>
<td>6</td>
<td>“Very important because it is my first language, and I speak it at home with my family.”</td>
<td>“Speak it as often as possible, when I have the opportunity to speak with my family of other Spanish speaking people.”</td>
<td>“Yes…I went to school until 9th grade.”</td>
<td>“In order for me to not forget to write Spanish and speak better.”</td>
<td>“For me to practice my writing more, and know when to use pronunciations.”</td>
</tr>
</tbody>
</table>
Table 4.2: Summary of participants’ prior formal experiences

<table>
<thead>
<tr>
<th>#</th>
<th>Generation</th>
<th>Major</th>
<th>Minor</th>
<th>Year in college</th>
<th>Hometown</th>
<th>Previous Spanish classes taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Second</td>
<td>Hospitality and tourism management</td>
<td>Spanish</td>
<td>Junior</td>
<td>Boston</td>
<td>312*</td>
</tr>
<tr>
<td>2</td>
<td>Second</td>
<td>Business Management</td>
<td>Spanish</td>
<td>Junior</td>
<td>Boston</td>
<td>Through high school (including AP), 311*, 312*, 322*</td>
</tr>
<tr>
<td>3</td>
<td>Second</td>
<td>Psychology</td>
<td>Spanish</td>
<td>Senior</td>
<td>Boston</td>
<td>240*, 301*, 311*, 322*, 323*</td>
</tr>
<tr>
<td>4</td>
<td>Second</td>
<td>Spanish</td>
<td>Economics</td>
<td>Senior</td>
<td>Springfield</td>
<td>311*, 322*, 323*, 417*, 470*, 471*</td>
</tr>
<tr>
<td>5</td>
<td>Second</td>
<td>Psychology</td>
<td>Spanish</td>
<td>Senior</td>
<td>Boston</td>
<td>Throughout high school, 312*, 322*</td>
</tr>
<tr>
<td>6</td>
<td>First (arrived at the age of 9)</td>
<td>Political Science</td>
<td>Sociology</td>
<td>Senior</td>
<td>Springfield</td>
<td>301*</td>
</tr>
</tbody>
</table>

*240 Intermediate Spanish II  
301 Conversational Spanish  
311 Advanced Grammar  
312 Spanish Composition I  
322 Spanish American Literature I  
323 Introduction to Spanish American Literature II  
417 Culture and Civilization of the Spanish America  
470 General View of Hispanic Linguistics  
471 Linguistic Varieties and Pluralism

As can be seen above, all of the participants of this study had attended prior Spanish language courses and had different learning experiences. It is important to point that since these students had studied Spanish before, they all had a certain degree of prior knowledge of modality and may have studied the subjunctive through rules of thumb in order to guide performance. This is important since each learner came to this course with a specific Orienting Basis for Action (OBA) which did not only include out-of-class experiences, as expected with heritage speakers, but also formal classroom experience. In this course, the goal was to help students transform their OBA into a SCOBA in order to
provide conscious awareness and control of the concept of modality and expand its use in academic writing.

4.6 Data collection

Data for the present work come from two main sources: conceptual and personal data. Conceptual data includes three sets: written discourse performance data (collected before and after Concept-based teaching [CBT]), definitions of the concept of verbal mood (also collected before and after CBT), and student concept verbalization data. Written discourse performance data, collected before CBT, consists of one written language diagnostic: a task developed by the instructor to elicit narratives that would potentially promote modality. It is important to know that even though this diagnostic was taken before Concept-based teaching took place, students had already been presented a general overview of the classification of complex clauses in Spanish (nominal, adjectival and adverbial). In addition, students had already been reminded of the morphological forms of present subjunctive. Nonetheless, this task served as a point of departure for the analysis of written discourse data development and control of modality at the discourse level. Written work collected after CBT took place includes: four pieces of homework designed to elicit modality in narratives, one chapter exam, and a reflection-on-performance essay.

Definition data consists of students’ written definitions of verbal mood at 3 different times. Their first definition was provided before any mention or instruction of the subjunctive mode or complex clauses, and the last two were done after instruction. There are five sets of verbalization data. Each set accompanies each one of the written
tasks after CBT. These tasks are four written assignments and one section of the exam of modality.

Personal data included a background questionnaire collected the first week of the course, and two reflection papers collected during the tenth and fourteenth weeks. Background data are presented in this chapter. Relevant extracts of students’ reflection papers are presented in chapter 7. The background questionnaire, as mentioned above, intended to gather sociolinguistic and instructional information about each student. Among the questions asked were their place of birth, experience with the language, language use domains, language maintenance strategies, interest in the course, expectations, previous studies in Spanish, future use of the language and important aspects they would consider important when studying a language. Details on the answers of each participant can be found in the section above.

The two reflection papers were designed to allow students to do the following: 1- permitting self-awareness; 2- identify material in which they thought progress was evident; 3- mention strategies used to achieve learning goals; 4- state if STI models had helped the students to learn and apply the grammatical structure studied in discourse and explain how this has been so; 5- design a learning plan including learning strategies and goals to achieve during the rest of the course (only in the first reflection paper), or in future courses.

4.7 Data analysis procedures

Following Gal’perin (1989), this project explores the cognitive transformation that takes place internally (mental actions) while students are engaged in material actions during learning activity. In order to do this, I follow Negueruela’s (2003) modified
version of Gel’perin’s (1989; Haenen, 1996) stepwise procedure which focuses on three STI main tenets: finding a unit of instruction that provides a complete orientation for the subject matter, materialization of that unit of instruction through didactic aides, and using verbalizations for internalization purposes. As Negueruela (2003) argues, by designing data analysis procedures emerging from SCT tenets to connect Concept-based Instruction (CBI) to L2 development, we bridge the gap between instructional processes and L2 research methodology.

The unit of instruction in this study is the grammatical concept of verbal mood and I consider the concept to be the unit of analysis. The didactic aid used is the Concept of Mood in Spanish chart developed by Negueruela (2003). This chart is the SCOBA, which represents the desired orienting basis and material external cognitive tool to help the student orient his/her learning actions (Haenen, 1996, p. 134). Negueruela’s (2003) SCOBA of Spanish mood is considered a general and complete orienting tool. It is general because it can be applied to any task in which the problem solving feature is modality, and it is complete because it comprises all the semantic-theoretical elements embedded in the concept of Spanish mood (Talzynia, 1981).

Among the advantages of affording students a materialized orienting basis, as argued by Gal’perin (1989), is that the SCOBA makes it easy for students to apply systematic knowledge during problem solving without prior memorization. In addition, the information that the students must use is “represented schematically and broken down into parts; and the relations among the parts…are portrayed…in such a way that they can be easily followed and will ensure the rationality of the action” (Gal’perin, 1989, p. 72).
In Gal’perin’s (Gal’perin, 1989) teaching approach students go through the complete learning process from beginning to end. One of the main goals to accomplish is achieving full awareness of the subject matter under study not only of the general but also of the particular.

According to Gal’perin (1989), the stepwise procedure has six different stages: 1- motivational stage; 2- orienting stage; 3- material stage; 4- stage of overt speech; 5- stage of covert speech; and 6- mental stage. During the first stage (motivational stage), the student learns about the learning goal and develops a learning motive. It is during this stage that the student is provided with a material organizer (graph, chart, map, etc.) and learns about the learning actions to achieve learning goals.

During the second stage (orienting stage), the student learns about the elements of the SCOBA and how it is used. During the third stage (material stage), the student engages in problem solving with the aide of a specific material organizer. During the fourth stage (overt speech), the student finds him/herself in a transitional stage where she/he begins using self-directed speech as a cognitive tool, instead of the material organizer. During the fifth stage of covert speech, the learning action goes from over to covert speech, where the student whispers to him/herself. During the mental and final stage, the student has internalized the material organizer and is able to solve problems at the mental level, where actions have been abbreviated and are performed at a high rate.

Considering that the stepwise procedure is contingent upon the students’ prior subject content knowledge, the type of learning actions and specific activities, Galperin’s stepwise procedure should be used flexibly in order to emphasize the individual process...
of each student taking into account the instructional length, learning tasks and learning procedures in order to interpret individual learning cases.

4.7.1 Definition data

Following Tulviste (1989, p. 14) and Negueruela (2003), definitions of the concept of verbal mood and student concept verbalization data will be divided into three types of classifications: semantic, functional and perceptual. Semantic definitions are meaning-based and thus directly linked to conveying meaning. Functional definitions encompass explanations based on past learning experiences such as grammar rules taught in other Spanish classes. Perceptual definitions include reasons based on direct personal experience with the language, such as “because it sounds better” or “because the verb is querer”.

In order to observe conceptual development through definition and verbalization data in the form of meaning emerging in problem solving activity and used as a cognitive tool, I analyze the orienting quality and transformation of students’ definition data. To do this, I modified Negueruela’s (2003) concrete essential features in theoretical concepts. These features have seven components: 1- generality (definition is based on semantic criteria), 2- abstractness (the definition includes essential features of the definition), 3- systematicity (the definition is coherent and inter-concept relations are visible), 4- explicability (student is able to provide a definition), 5- functionality (it can orient discourse and it can be used in different contexts), and 6- significance (provides a meaning-making ability). The first three interrelated features of generality, abstractness and systematicity are “the core of a theoretical concept” (Negueruela, 2003, p. 286).
4.7.2 Written discourse data

In chapter 5, I analyze written discourse data as evidenced in students’ text. In chapter 7, I analyze student-identified complex clauses along with the verbalization provided. The written discourse performance data collected before CBT consists of one written language diagnostics developed by the instructor to elicit narratives that would potentially promote modality. Written discourse performance data collected after CBT consists of four pieces of homework designed to elicit subjunctive mode narratives, and an essay that is part of the chapter exam designed to assess the unit of modality. The relevance of the chosen analyzed tasks relies on the fact that in each of these tasks students provided verbalizations for their use of indicative or subjunctive.

4.7.3 Verbalization data

Verbalization data consists of students’ voiced or written recordings explaining to themselves the reasons why they would choose to use the indicative or the subjunctive in the specific contexts found in their narratives. In order to do these verbalizations they had to use a subjunctive versus indicative didactic aid (SCOBA) developed by Negueruela (2003). The purpose of the chart was to help the student reach a theoretically based understanding of the concept of modality through verbalizations while using the concept in practical activity. This chart was used as objective material in order to study the student’s posited connection between the concept of modality and its application in discourse.

Verbalizations are key in the study of concept formation with any population since they reveal how conceptual learning proceeds in cognitively mediated goal-oriented activity. Furthermore, verbalizations are critical when investigating language
development in Heritage language learners because they provide insights into the cognitive development that takes place when theoretical concepts meet empirical knowledge and vice versa. Verbalization data will allow us to observe the developmental path in each student. Vygotsky (1998) believes that only in concepts can new content be assimilated in a comprehensive form. Concept formation combined with speech allows individuals to become aware of his/her own internal activity. The essence of the concept, he argues, relies in its ability to illustrate the specific connections and relations in synthesis: “in a word, in a integral image through a multitude of determinations” (Vygotsky, 1998, p. 53). Verbalizations, as stated by Negueruela (2003), are viewed as a conscious focus on language using grammatical concepts as tools for understanding through the use of the L1 in explaining to the self, based on conceptual meanings, grammatical features of the target language used in different discourse activities produced by the same learner. (p. 247)

In order to guide verbalizations, students used the SCOBA during writing tasks and explained to themselves the semantic reasons of the use of indicative or subjunctive in their tasks. Students were provided with two charts, one of the charts was in English and the other one in Spanish so that they could use their language of choice. Allowing students to use the chart in their preferred language was important since “Gal’perin advocates that the orienting basis be built from the native language” (Carpay, 1974, p. 171). Not surprisingly, the Heritage language learners of this study did all their verbalizations in Spanish.

In order to analyze conceptual development through verbalization data, I use the following features: 1- Generality (semantic, functional or perceptual), 2- Abstractness, 3- Systematicity, 4- Functionality, and 5- Significance.
4.8 Conclusion

One of the main pedagogical objectives in the Heritage language class mentioned in this study, was to help students develop linguistic awareness and control of meanings conveyed by language structures. The goal was to help students further develop the process that allows them to connect everyday and scientific concepts dialectally in practical activity. The premise is not to disregard the language variety used in their communities, but to build upon it in order to expand contexts and purposes of communication that by linguistic means based on theoretical concepts may afford access to new audiences.

Following Gal’perin (1989) and Negueruela (2003), this project explores the cognitive transformation that takes place internally (mental actions) while students are engaged in material actions during learning activity. In order to do this, I follow Negueruela’s (2003) modified version of Gel’perin’s (1989; Haenen, 1996) stepwise procedure which focuses on three STI main tenets: finding a unit of instruction that provides a complete orientation for the subject matter, materialization of that unit of instruction through didactic aides, and using verbalizations for internalization purposes.

The two research goals were to observe in what ways Gal’perin’s Systemic-Theoretical Instruction (STI) promotes the internalization, control and awareness of the concept of verbal mood in Heritage language learners, and to study how students’ orientation changes with a use of a theoretically-based psychological tool on the concept of verbal mood, and observe how new conceptualiations emerge and proceed in the learners under study as reflected in students written and verbalization data. The unit of instruction in this study is the grammatical concept of verbal mood and I consider the
concept to be the unit of analysis. The didactic aid used is the Concept of Mood in Spanish chart developed by Negueruela (2003).

Data for the present work comes from two main sources: personal and conceptual data. Personal data included a background questionnaire collected the first week of the course, and two reflection papers collected during the tenth and fourteenth weeks.

Conceptual data includes written discourse performance data (collected before and after CBT), conceptual definition of the subjunctive mode data (also collected before and after CBT), and student concept verbalization data. In chapter 5, I analyze students’ definition data. In chapter 6, I analyze students’ written performance data. In chapter 7, I analyze and compare these three different sets of data, and identify the qualitative changes afforded to the student in their written performance.
CHAPTER 5
FINDINGS (1)

5.1 Introduction

In this chapter I analyze conceptual definition of verbal mood data in order to answer the first question guiding this study: In what ways does Gal’perin’s Systemic-Theoretical Instruction (STI) promote awareness, control and internalization of the concept of verbal mood in Heritage language learners? Conceptual development data includes conceptual definition of verbal mood data (collected before and after Concept-based teaching [CBT]), written discourse performance data (collected before and after CBT), and student concept verbalization data after CBT.

In chapter 6, I analyze written discourse performance data. In chapter 7, I analyze written discourse along with student concept verbalization data. This chapter is structured as follows. Section 5.2 presents relevant information about Spanish verbal mood. Section 5.3 explains the goal of the teaching unit of verbal mood through STI instruction. Section 5.4 describes the data analysis procedure. Section 5.5 presents the data analysis. Section 5.6 concludes this chapter.

5.2 Spanish verbal mood

Spanish verbal mood has two interrelated categories: one is grammatical and the other semantic. The grammatical category is represented by verb inflections. The semantic category focuses on notion of modality (Palmer, 1986). It conveys differences in the intention and meaning of the speaker expressed through discourse.
The acquisition of Spanish mood entails the development of complex syntax in the form of two independent clauses, generally with two different subjects, connected by the relative *que* or adverbial conjunctions (*cuando, para que, hasta que, en cuanto*, etc.). As it has been reported in past syntactic research, speakers rely on the Spanish indicative to assert information. According to Lunn’s (1989) pragmatic prototype of assertability, when the speaker asserts information that is both true and new, the main clause’s verb takes the indicative, and when the speaker uses less assertable information that is untrue or old, the verb in the dependent clause takes the subjunctive. Bolinger (1991) further reports that illocutionary theory supports the notion that the indicative mode reports information and conveys intelligence in subordinate clauses, just like it does in simple clauses. On the other hand, subordination along with subjunctive is used to express attitude.

For Bolinger (1991), the indicative and subjunctive “represent two ways of looking at reality, one intellectual, the other attitudinal” (p. 263). In this way, the indicative is commonly used in the complement clause when the verb or expression in the main clause conveys “intelligence” (Bolinger, 1991, p. 252) and expresses the modalities of belief, evidence, inference, knowledge and report of a statement. On the other hand, subjunctive mood is used in the complement clause to convey attitude (Bolinger, 1991). That is to anticipate, comment on a proposition (Terrell and Hopper, 1974), evaluate it and convey influence (Bull, 1972).

The selection of grammatical mood cannot be based on a verbal or phrasal cue. For example, it would be inaccurate to only teach students that the subjunctive is used with expressions of doubt because a verb that expresses doubt can also be used in a
sentence where the intention is to report information (i.e., *Dudo que él llegue temprano* vs. *Ella duda que vas a llegar temprano*). This is so as modality does not only rely on lexical meaning (with the only exception of *ojalá*), this selection is also and mainly based on the intention of the speaker (for more counterexamples see Whitley, 2002; and Bolinger, 1991; among others). That is, selection is agency-motivated and relies on the meaning that the speaker wishes to convey in a specific context. Furthermore, the approach of teaching students rules in order to select mood “is objectionable because it misleads students into thinking that mood selection is dictated by the type of main verb or conjunction; if they learn enough cases of “*pedir* and *para que*” take subjunctive,” “*saber* and *porque* take indicative,” and so on, they will be ready for the fill-in-the-blanks” (Whitley, 2002, p. 127). This type of instruction is incomplete.

### 5.3 Pedagogical goal

I propose that by following Vygotsky’s Sociocutural Theory’s research principles, Gal’perin’s Systemic-theoretical Instruction’s pedagogical guidelines and Negueruela’s (2003) didactic model, I will be able to observe in students’ practical activity emerging development of the concept of modality in Heritage language learners, and assess to what extent STI fosters development of modality in Heritage language learners. The learning goal of the teaching unit of verbal mood through STI instruction is to promote complete understanding of the meanings expressed by the theoretical concept of verbal mood, and to develop discursive agency through intentionality.

The didactic aid used is identified as SCOBA. A SCOBA represents the desired orienting basis and material external cognitive tool to help the student orient his/her learning actions (Haenen, 1996, p. 134). According to Negueruela (2003) “a theoretical
concept is a coherent systematic general meaning that can be recontextualized for a variety of tasks. Its regulatory power comes from abstract generalization and contextual specification” (p. 282).

**Figure 5.1: CONCEPT OF MOOD in Spanish– from Negueruela (2003)**

Explain to yourself why each verbal mood is selected using the flow chart.

The **INTENTION** of the speaker expressed by the **MEANING of the first verb or expression (and/or conjunction)** is:

![Diagram](image)

The chart displayed above is meant to work bidirectionally: inwards (as a tool for understanding) and outwards (as a tool used to orient practice) in learning that leads development. This, I hypothesize, will promote students gaining awareness and control of the concept of modality, and will help them to expand its use to new contexts.

The tasks after CBT that I analyze in this work asked students to use this chart to explain to themselves the reasons why they would use indicative or subjunctive in their written text. The following is what I consider a complete explanation of the concept of
modality based on the chart, and a complete answer to the question: What is the meaning expressed by the subjunctive and the indicative?

The subjunctive is used when the speaker conveys attitude through anticipation, evaluation of clause, comments on a different proposition, or influences others. The indicative is used when the speaker conveys intelligence/understanding/knowledge. This includes reporting on new information, or asserting information as true.

**5.4 Data analysis procedure**

It is relevant to mention that definition data does not reflect the functionality of the concept. That is, the fact that the student is able to provide a definition does not mean that the student is able to functionally apply the meanings embedded in the concept. However, as mentioned by Tulviste (1989), definitions “must be regarded as adequate for studying scientific concepts and for determining what concepts we are dealing with in a particular, concrete case, i.e., an everyday concept or a scientific concept” (p. 7). Because I am studying the development of theoretical concepts in bilingual students who may already possess empirical knowledge of the concept of this study, I analyze concept definitions in order to observe any learner’s transformation from empirical to theoretical understanding while using the theoretical concept as an orienting cognitive tool in problem solving activity in order to “fully understand the meaning of the L2 completely” (Negueruela, 2003, p. 282).

This study aims at orienting students’ learning of the theoretical concept of verbal mood through organized mediated instruction. Theoretical concept learning goes from the general to the concrete. According to Davydov (1984), “empirical knowledge goes from
concrete to abstract and theoretical knowledge goes from general to concrete” (p. 30). He further states that

on the basis of abstraction a human being discerns and in the process of ascending conceptually holds the specific of those real relations of objects which define the origination and totality of manifold phenomena. In generalization he or she establishes the real connections of this discerned particular relation with the individual specific phenomena originated on its basis. Only through the establishment of these connections can the general nature of some particular relation be revealed and raised to the level of universality. The substantial general is inseparable from the particular and the specific – they are manifested through each other. (p. 11)

In order to observe conceptual development through definition data in the form of meaning emerging in problem solving activity and used as a cognitive tool, I analyze the orienting quality and transformation of students’ definition data. To do this, I modified Negueruela’s (2003) concrete essential features in theoretical concepts created. The features have six components: 1- generality (definition is based on semantic criteria), 2- abstractness (the definition includes essential features of the definition), 3- systematicity (the definition is coherent and inter-concept relations are visible), 4- explicability (student is able to provide a coherent definition), 5- functionality (it can orient discourse and it can be used in different contexts), and 6- significance (it shows awareness of intentionality).

The interrelation of the three features of generality, abstractness and systematicity in connection with the information in the verbal mood chart used by the students is displayed in the table below.
Table 5.1: Theoretical concept and verbal mood

<table>
<thead>
<tr>
<th>Theoretical concept</th>
<th>1- General (semantic)</th>
<th>2- Abstract (essential features)</th>
<th>3- Systematic (coherent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal mood</td>
<td>Speakers’ intent in representing an event as factual (reporting) or personal (volitional involvement)</td>
<td>Attitude (of the speaker) Subjunctive - Anticipation - Evaluation of clause - Influencing or commenting Intelligence (desire of speaker to acknowledge “knowledge” of listener) Indicative - Report (new information) - Assert (presents as true)</td>
<td>- Depends on speakers’ intention - The speakers’ intention determine the meaning and thus the choice of indicative and subjunctive</td>
</tr>
</tbody>
</table>

It is important to mention that in order to better determine what type of definition the student provided in the essential feature of generality (showing only semantic above), the three classifications taken into account includes: semantic, functional or perceptual (Tulviste, 1989). Students’ conceptual definitions within this feature (as seen below) are analyzed within this scope.

The rest of the features: 4- explicability, 5- functionality and 6- significance are interrelated. Feature number four (explicability) is related to the first three features and because it helps determine if the student is able to explain the theoretical concept under study, it is necessary in order to analyze the scope of awareness in this study. Features 5 (functionality) and 6 (significance) are related to the first four features. The feature of
functionality determines if the definition provides orientation at the executive level and if it can be recontextualized. The last feature of significance determines if the definition includes intentionality. That is awareness that the choice of modality is solely based on speaker’s intention. In the following section, I present the tables according to the six interrelated features mentioned above, and discuss students’ definitions.

5.5 Data analysis

Students were first asked to provide a definition of the subjunctive before CBT. Then right after instruction of verbal mood took place, for homework students had to respond to communicative tasks in writing, and verbalize their self-explanations of the use of indicative or subjunctive in their emerging text. The first time students were asked to write a definition of the subjunctive, it was before CBT. The second time, it was after CBT in the exam assessing the teaching unit of modality. The third time students were asked to provide a definition, it was on the last diagnostic of the semester, just one day before the course was over.

In the following tables that include the six interrelated features of theoretical concepts I analyze student conceptual data in the following way. For the essential feature of generality, sometimes the definition is categorized as semantic, functional or perceptual. It is considered semantic if it is meaning-based, functional if it is based on its use, or perceptual if it is based on specific properties. However, it is also possible to have a combination of these. The feature of abstractness has three possible answers: yes, some, no. If the definition is complete in its orienting feature then the answer is yes, if some essential features are present the answer is some, but if none of the feature are present then the answer is no. For the feature of systematicity, if there are coherence and
taxonomic features in the definition provided I write yes, if there is only some evidence of coherence I write some, and I write no if there is no coherence in the definition’s relevant features.

For the feature of explicability, if there is awareness of the features of the definition I say yes, if there is some ability to explain the concept I say some, if it doesn’t show any awareness I say no. For functionality, I write yes if there is an answer of yes or some under the feature of abstractness (2) and under the feature of systematicity (3). I write no if it does not provide a complete orientation and thus it cannot be recontextualized. For significance, I write yes if the student shows understanding of the role of speaker intentionality and I write no if there is no evidence of speaker intentionality. A dash (---) means an answer was not provided, or if the answer provided does not apply to the question asked.
5.5.1 Conceptual development in written definition: Participant # 1

Table 5.2: Conceptual development in participant # 1

<table>
<thead>
<tr>
<th>Participant</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student # 1</td>
<td>11/07</td>
<td>11/30</td>
<td>12/07</td>
</tr>
</tbody>
</table>

1- Generality
   a. semantic (meaning/idea)
   b. functional (how it is used)
   b. perceptual (describes specific properties)

2- Abstractness (includes essential features in definition)

3- Systematicity (coherent and interrelated)

4- Explicability (awareness/ability to explain a concept)

5- Functionality (its features can orient activity)

6- Significance (Based on intentionality)

---

<table>
<thead>
<tr>
<th></th>
<th>---</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>---</td>
<td>Some</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Before CBT, participant 1 shows confusion between grammatical labels. She says: “El subjuntivo es algo que describe una persona, cosa y/o un lugar” (the subjunctive is something that describes a person, thing and/or a place), therefore, it is not possible to have any insight on her definition prior to CBT. The answer provided was considered not applicable (marked with dashes above).
The first time after CBT, when asked: ¿Qué significado expresas cuando usas el subjuntivo? (What meaning do you express when you use the subjunctive?) she wrote: “Cuando uso el subjuntivo significa que estoy expresando el uso de anticipar, influencia, y comentario hacia una palabra o situación en una oración. Estoy expresando certeza en cierta forma cuando estoy buscando el significado de una verbo en una oración” (when I use the subjunctive it means that I am expressing the use of anticipation, influence and commentary towards a word or situation in a sentence. I am expressing certainty in a certain way when I am looking for the meaning of a verb in a sentence).

The first part of this student’s definition: “Cuando uso el subjuntivo significa que estoy expresando el uso de anticipar, influencia, y comentario hacia una palabra o situación en una oración” is semantic, abstract and systematic. It also shows independency and significance. This student expresses agency saying “uso” (I use) and “estoy expresando” (I am expressing). However, her second part of the definition that states: “Estoy expresando certeza en cierta forma cuando estoy buscando el significado de una verbo en una oración” (I am expressing certainty in a certain way when I am looking for the meaning of a verb in a sentence) is unclear. One may think that she may be confused with the modalities expressed by the indicative, however at this time she was asked to state what meaning she expressed when she used the subjunctive. For that reason, I consider her answer to be referring to the subjunctive and not the indicative. Since she is mentioning the fact that she needs to look for the meaning of a verb, I consider the generality of her definition as semantic/functional.

In her second definition after CBT, when asked: ¿Qué significado expresa el subjuntivo y el indicativo para ti? (What meaning does the subjunctive and indicative
express for you?), she wrote: “El subjuntivo expresa para mi lo que anticipo, informo, influyo y lo que quiero expresar en una oración. El indicativo expresa para mi lo que quiero asegura con certeza y lo que estoy reportando por seguro y información verdadera” (the subjunctive expresses for me what I anticipate, inform, influence and what I want to express in a sentence. The indicative expresses for me what I want to assert with certainly and what I am reporting for sure and true information”. This last definition clearly shows complete understanding of the theoretical concept of verbal mood. There is also clear development seen in her definition from before CBT, first time after CBT and second time after CBT.
5.5.2 Conceptual development in written definition: Participant # 2

Table 5.3: Conceptual development in participant # 2

<table>
<thead>
<tr>
<th>Participant</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student # 2</td>
<td>11/07</td>
<td>11/30</td>
<td>12/07</td>
</tr>
</tbody>
</table>

1- Generality
   a. semantic (meaning/idea)
   b. functional (how it is used)
   b. perceptual (describes specific properties)
   Functional/perceptual
   Semantic/ functional
   Semantic

2- Abstractness
   (includes essential features in definition)
   No
   Yes
   Some

3- Systematicity
   (coherent and interrelated)
   No
   Yes
   Yes

4- Explicability
   (awareness/ability to explain a concept)
   No
   Yes
   Some

5- Functionality
   (its features can orient activity)
   No
   Yes
   Yes

6- Significance
   (Based on intentionality)
   Yes
   Yes
   No

The definition before CBT of participant 2 is functional and perceptual.

These responses seem to be connected to some textbook uses where students learn to use the subjunctive with verbal cues that express doubt. As most of the students in this course, this student has taken other Spanish courses before this one. It is interesting to note that what she remembers about subjunctive is that it is used when there is doubt: “Lo
usa cuando hay duda” (it is used when there is doubt). The first time after CBT she wrote: “Cuando usas el subjuntivo, el significado que expresas es una anticipación, comentario, o evaluación. También lo usa cuando hay negación y deseos” (when you use the subjunctive, the meaning expressed is an anticipation, commentary, or evaluation. It is also used when there is denying and wishes). It is interesting to note that she mixes functional knowledge (it is also used when there is denying and wishes) learned in prior classes with semantic based knowledge (the meaning you express is anticipation, commentary and evaluation). In her definition there is evidence of agency as she uses the impersonal “tu” (you). This allows her to remove herself from the context while acknowledging agency in a different speaker.

The second time after CBT, participant 2 writes: “El subjuntivo significa cuando hay anticipación o evaluación de cláusula o también cuando no transmite inteligencia. El indicativo significa cuando el verbo no transmite actitud pero transmite inteligencia” (the subjunctive means when there is anticipation or evaluation of clause or also when it doesn’t transmit intelligence. The indicative means when the verb doesn’t transmit attitude but it transmits intelligence).

Her definition is general and systematic. However, it does not include all the essential features in the definition. For example when she says “the indicative means when the verb doesn’t transmit attitude but it transmits intelligence”, she is not providing a complete definition based on essential features when saying one is what the other is not. There is also lack of agency, as the student does not provide insights into the role of the speaker in conveying information.
5.5.3 Conceptual development in written definition: Participant # 3

Table 5.4: Conceptual development in participant # 3

<table>
<thead>
<tr>
<th>Participant</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student # 3</td>
<td>11/07</td>
<td>11/30</td>
<td>12/07</td>
</tr>
<tr>
<td>1- Generality</td>
<td>Functional/perceptual</td>
<td>Semantic/functional</td>
<td>Semantic</td>
</tr>
<tr>
<td>a. semantic (meaning/idea)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional (how it is used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. perceptual (describes specific properties)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>No</td>
<td>Yes</td>
<td>Some</td>
</tr>
<tr>
<td>(includes essential features in definition)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(coherent and interrelated)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- Explicability</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(awareness/ability to explain a concept)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Functionality</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(its features can orient activity)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- Significance</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(Based on intentionality)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before CBT, participant 3 writes: “El subjuntivo es un tenso de verbo que se refiere al futuro pero expresa duda. No es algo que va a pasar en seguro” (the subjunctive is a verbal tense that refers to the future but it expresses doubt. It is not something that is going to happen for sure). This student shows functional/perceptual knowledge learned in past courses of Spanish. It is interesting to note that both participant 3 and participant 2
mention doubt as a functional requirement for the subjunctive. In this definition there are no signs of intentionality.

The first time after CBT, this student writes: “El subjuntivo expresa el significado que algo no es cierto o todavía no ha pasado/todavía no es cierto. Expresa anticipación, duda, y puedo transmitir una actitud de influencia, evaluación o un comentario” (the subjunctive expresses the meaning that something is not true or it hasn’t happened/it is not true yet. It expresses anticipation, doubt, and I can transmit an attitude of influence, evaluation or a commentary). In this definition, she still includes and seems to work around the concept of doubt (something is not true) which is taught as a functional cue to use the subjunctive as in: no es cierto que haya gente en la casa (It is not true that there may be people in the house). However, we can also see how her understanding is developing and leaning towards semantic-based explanations. She also acknowledges that it is up to her, the speaker, what meaning she intents to convey.

The second time after CBT, she writes: “El subjuntivo significa que una situación todavía no ha pasado, no hay certeza, y anticipa. El indicativo significa que una situación es verdad, reporta información nueva” (the subjunctive means that a situation has not happened, there is no certainty, and it anticipates. The indicative means that a situation is true, it reports new information). Here, we can see abbreviation, she shows semantic understanding based mainly on the modality of anticipation. Concerning the indicative, her definition is complete, general, abstract and systematic. This last time, she does not provide information related to intentionality.
### 5.5.4 Conceptual development in written definition: Participant # 4

Table 5.5: Conceptual development in participant # 4

<table>
<thead>
<tr>
<th>Participant Student # 4</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11/07</td>
<td>11/30</td>
<td>12/07</td>
</tr>
</tbody>
</table>
| 1- Generality  
a. semantic (meaning/idea)  
b. functional (how it is used)  
b. perceptual (describes specific properties) | ---     | Semantic | Semantic |
| 2- Abstractness  
(includes essential features in definition) | ---     | Some    | Some    |
| 3- Systematicity  
(coherent and interrelated) | ---     | Some    | Some    |
| 4- Explicability  
(awareness/ability to explain a concept) | ---     | Yes     | Yes     |
| 5- Functionality  
(its features can orient activity) | ---     | Yes     | Yes     |
| 6- Significance  
(Based on intentionality) | ---     | Yes     | Yes     |

Before CBT, participant 4 writes: “Lo he estudiado pero no me acuerdo” (I have studied it but I don’t remember). This is not surprising since the fact that a student does not remember a grammatical label does not mean that he/she does not know how to use it. For the purposes of this study, this response is considered to be similar to a blank response as it does not provide any insights into a possible definition.
The first time after CBT, the student shows some level of awareness and writes: “Cuando se usa el subjuntivo se expresa algo inseguro, algo que no ha pasado y que anticipas. Cuando usas el subjuntivo no sabes si es verdadero entonces expresas inseguridad” (when the subjunctive is used it expresses something uncertain, something that has not happened and that you anticipate. When you use the subjunctive you don’t know if it is true then you express insecurity). This student shows a semantic understanding of the modality of anticipation that needs to be developed at the abstract and systematic level. The student first uses impersonal “se” which allows the student to remove herself from the context while acknowledging agency in a different speaker. Then she uses the impersonal “tú” which allows her to activate her agency as a speaker.

The second time after CBT participant 4 writes: “El subjuntivo expresa una anticipación, como una inseguridad y el indicativo expresa algo seguro que te da información” (the subjunctive expresses an anticipation, like an insecurity and the indicative expresses something certain that gives you information). This definition is semantically based but it is still incomplete since there are other essential features missing. Because of this, this definition seems to provide orientating features that can only be recontextualized in some contexts.
5.5.5 Conceptual development in written definition: Participant # 5

Table 5.6: Conceptual development in participant # 5

<table>
<thead>
<tr>
<th>Participant</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student # 5</td>
<td>11/07</td>
<td>11/30</td>
<td>12/07</td>
</tr>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(meaning/idea)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(how it is used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. perceptual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(describes specific properties)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td></td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>(includes essential features in definition)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- Systematicity</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(coherent and interrelated)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- Explicability</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(awareness/ability to explain a concept)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Functionality</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(its features can orient activity)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- Significance</td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(Based on intentionality)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before CBT, participant 5 writes: “¿no me acuerdo” (I don’t remember). As mentioned above, since it is not possible to have any insight on this type of answer, for the purposes of this study this answer is considered none existent (marked with dashes above).
After CBT, this student wrote: “Cuando usas el subjuntivo, estás expresando un comentario, observación, o influencia” (when you use the subjunctive, you are making a comment, expressing an observation, or influencing). This definition is general and systematic but does not include all the features in the definition. Like other students, this student also uses the impersonal “tú”, which as explained above it is considered to be an acknowledgement of agency.

The second time after CBT, participant 5 writes: “El subjuntivo comunica una comentario o trata de influir mientras el indicativo informa o asegura información” (the subjunctive makes a comment or it tries to influence while the indicative reports or asserts information). This definition referring to the subjunctive is very similar to the definition given in the paragraph above and it is still missing essential features. The explanation of the indicative is general, abstract and systematic. This time, the student writes “the subjunctive makes a comment” when in reality it is the speaker who chooses to make a comment in any context given. Therefore, it lacks intentionality.
5.5.6 Conceptual development in written definition: Participant # 6

Table 5.7: Conceptual development in participant # 6

<table>
<thead>
<tr>
<th>Participant</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student # 6</td>
<td>11/07</td>
<td>11/30</td>
<td>12/07</td>
</tr>
<tr>
<td>1- Generality</td>
<td>No</td>
<td>---</td>
<td>Semantic Functional</td>
</tr>
<tr>
<td>a. semantic (meaning/idea)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional (how it is used)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. perceptual (describes specific properties)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>No</td>
<td>---</td>
<td>Yes</td>
</tr>
<tr>
<td>(includes essential features in definition)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>No</td>
<td>---</td>
<td>Yes</td>
</tr>
<tr>
<td>(coherent and interrelated)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- Explicability</td>
<td>No</td>
<td>---</td>
<td>Yes</td>
</tr>
<tr>
<td>(awareness/ability to explain a concept)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Functionality</td>
<td>No</td>
<td>---</td>
<td>Yes</td>
</tr>
<tr>
<td>(its features can orient activity)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- Significance</td>
<td>No</td>
<td>---</td>
<td>No</td>
</tr>
<tr>
<td>(Based on intentionality)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before CBT, the student was not able to provide a coherent definition and was not able to give a coherent explanation. The definition provided is following: “Creo que es algo que da explicación al punto major de lo que se trata la oración” (I think it’s something that explains the point better regarding what the sentence is about). The second time, the student opted not to offer a definition leaving the space provided blank.
However, the third time she was asked to provide a definition her definition was coherent and it was based on semantic generalization. She wrote:

El significado del subjuntivo para mí es una conjugación (cláusula) que muestra que algo no ha ocurrido, no es verdadero. Y no es probado como real. Por ejemplo, dice algo que uno desea, espera o quiere. El indicativo es conjugación (cláusulas) que muestran algo ha sucedido, real, es probado como si es verdadero. Por ejemplo dice algo de información o reporta.

The meaning of subjunctive for me is a conjugation (clause) that shows that something has not happened, it is not true. And it is not proved as real. For example, it tells something that one wishes, hopes or wants. The indicative is a conjugation (clauses) that show that something has happened, real, is proven as is it is true. For example it tells some information or reports.

Participant 6 shows understanding of grammatical and semantic mood when stating that the subjunctive is a conjugation that shows that something has not happened, it is not true or it is not real. However, by mentioning the verbs to wish, hope and want in her explanation, she limits her understanding to something that has not yet happened or that it is not true. This may only encompass the modalities of anticipation and influence, It seems that her understanding is still functional but there is clear emergence of semantic understanding.

On the other hand, her definition of indicative is abstract, systematic and functional. She states that the indicative reports real, true information that already happened. Nonetheless, in her definition there is no evidence of agency. In her definition of subjunctive mood she says “para mí”, which would make us think she is taking an active role, however if we look at the question asked (¿qué significado expresa el subjuntivo y el indicativo para ti?), we can see that the “para mí” is answering the part of the question of “para ti”, instead of providing agency. It seems that the choice of subjunctive or indicative here is not determined by the speaker.
5.5.7 Comparison of essential features

As mentioned above, the essential components of a theoretical concept rely in its high generality, abstractness and systematicity. In the charts used to analyze student conceptual definitions presented above, the feature of generality (number 1) included the characteristics of semantic (S), functional (F), perceptual (P) in order to observe the origin from where the definition is departing and its evolution, if any. The other two essential components of a theoretical concept (abstractness and systematicity) were interrelated with the feature of functionality. The feature of functionality (number 5) was considered to be present if the concept definition had already shown to have some level of abstractness and systematicity. That is, if the definition includes essential features (abstractness) and it is coherent and interrelated with other concepts (systematicity) then it is considered to have the features that can orient activity (functionality). The interrelation of these two features is then presented in the feature of functionality.

In section 5.4.7.1, I present and compare the three essential components of a theoretical concept: generality, abstractness and systematicity in the following way. In the column of Generality (G), I identify the features of semantic (S), functional (F) and perceptual (P). Three dashes are used (---) to indicate that an answer was not provided.

The column of functionality (F) displays only two values: yes (Y), and no (N). The letter Y states that some of the essential features of abstractness and systematicity were present. The letter N states that the concept did not include the features of abstractness and systematicity. The emphasis placed on the feature of functionality is based on Negueruela’s premise (2003). This premise claims that if students reach a semantic understanding of the essential features of verbal mood that includes coherence
and understanding of interrelated concepts, then that definition is considered to have the potential orienting functionality that can guide execution, if the concept is being learned.

5.5.7.1 Comparison of essential features in theoretical concepts

Table 5.8: Essential features in theoretical concepts among participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Before CBT</th>
<th>Time 1 after CBT</th>
<th>Time 2 after CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>1</td>
<td>---</td>
<td>S/F</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>F/P</td>
<td>N</td>
<td>S/F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>F/P</td>
<td>N</td>
<td>S/F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>---</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>S</td>
</tr>
<tr>
<td>5</td>
<td>---</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>N</td>
<td>N</td>
<td>S/F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Total</td>
<td>N = 1</td>
<td>N = 3</td>
<td>N = 0</td>
</tr>
<tr>
<td></td>
<td>--- = 3</td>
<td>--- = 3</td>
<td>--- = 1</td>
</tr>
<tr>
<td></td>
<td>F/P = 2</td>
<td>F/P = 0</td>
<td>F/P = 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S = 2</td>
<td>S = 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S/F = 3</td>
<td>S/F = 1</td>
</tr>
</tbody>
</table>

Generality: semantic (S), functional (F), perceptual (P), not provided (---).
Functionality: yes (Y), no (N), not provided (---)

As can be seen in above, the second time after CBT, five of the students’ definitions are semantic and functional and thus have the potential to orient execution. The definition of participant 6 is not sufficiently complete or coherent. This would indicate that the definition’s potential to orient activity is lower than definitions based solely on semantic understanding.
5.6 Conclusion

According to Gal’perin (1989), the stepwise procedure has six different stages: 1-motivational stage; 2- orienting stage; 3- material stage; 4- stage of overt speech; 5- stage of covert speech; and 6- mental stage. During the mental and final stage, the student has internalized the material organizer and is able to solve problems at the mental level, where actions have been abbreviated and are performed at a high rate.

The first time students were asked to write a definition of the subjunctive it was before CBT. The second time took place after CBT while students were taking the exam assessing the unit of modality. At this time, students did not have the verbal mood chart used prior to the exam to guide problem solving in written meaningful activities. At this point, students were expected to use the verbal mood chart at the mental stage. In this stage, it is considered that students have internalized any external cognitive tool and can now perform without any external aide. The third time students provided a definition, it was in a final writing diagnostic meant to assess students’ knowledge of the material taught in this course. At this time, just like when they took their third exam of the semester, students did not have the verbal mood chart either.

As can be seen in Table 8 comparing the essential features in theoretical concepts in the conceptual definitions of the six participants of this study, the definitions of five of the six participants of this study were considered semantic and functional. This means that these definitions have a higher potential to orient execution. It is important to note that the goal in analyzing conceptual definition is in observing how students’ conceptual understanding evolves under semantic understandings in the process of theoretical
concept development and not on the direct relationship between concept development and performance.

As Vygotsky states, “scientific concepts…just start their development, rather than finish it, at a moment when the child learns the term or word-meaning denoting the new concept” (Vygotsky, 1986, p. 159). From here we can only conclude that the semantic and functional feature revealed in the majority of students’ understanding of the theoretical concept of verbal mood is illustrating one path in which STI instruction promotes semantic understandings leading development. In the following chapter, I analyze discourse performance data, the second of the three data sets studying student conceptual development of modality in a heritage language classroom.
CHAPTER 6
FINDINGS (2)

6.1 Introduction

In this chapter I analyze written discourse data collected before and after CBT. Discourse data before CBT includes one written language diagnostic. Written discourse data collected after CBT took place includes: four pieces of homework designed to elicit subjunctive mood narratives, and an essay that is part of a chapter exam used to formally assess the unit of modality. Drawing from the results in student concept development in chapter 5, we would expect that students’ semantic understanding of the theoretical concept of mood would have a positive impact on their discourse performance data. We can then hypothesize that we will see development at the discourse level.

This chapter is structured as follows. Section 6.2 mentions the data analysis procedure. Section 6.3 presents the data analysis of written discourse data of the six participants of this study. Section 6.4 concludes this chapter.

6.2 Data analysis procedure

In this chapter, I consider the text to be the unit of analysis. In order to observe morphological evolution through discourse data in the form of meaning emerging in communicative activity, I analyze six tasks per student participating in this study. In each task, I first identify the complex sentences in each text. It is important to note that each complex sentence is an excerpt from a larger text. Second, I categorize the type of clause provided and examine its appropriate or inappropriate use of indicative or subjunctive. I
do the latter taking into account the specific context of the message and the intended meaning expressed by the form of the verb. This use is displayed in each table presented below. The numbers in the charts represent the total amount of clauses belonging to a specific task, type of clause and verbal tense. Following each chart, I provide the complex sentences along with my analysis.

Each task is identified as the following. The analyzed task before CBT is identified as D (diagnostic). As mentioned in chapter 4, although students had not been yet introduced to modality through Concept-based teaching before this task, students had already been given an overall introduction of complex sentences in Spanish (nominal, adjectival and adverbial). Students had also been reminded of the morphological forms of present subjunctive. Nonetheless, in this chapter task D will serve as a point of departure in the analysis of development of awareness and control of the concept of modality in written tasks. The tasks after CBT took place are four homework activities (T1, T2, T3 and T4) assigned while teaching the unit of modality. Ex (exam) is the essay students wrote for the exam assessing the teaching unit of modality. The prompts for D, T1 and T2, were open-ended and were based on one situation to which students had to respond in writing. These tasks did not indicate the number of words to be used or the expected length of the written response. Task T3 had seven prompts that were based on seven questions. The prompt for task T4 posed three situations to which students had to respond in writing. The essay that was part of the exam assessing the unit of modality asked students to express their opinion on a controversial topic. After writing the essay, students had to explain in writing ten of the uses of indicative and subjunctive in their
text. It is important to note that students did not use any aid while taking the exam, including the Concept of Mood in Spanish chart developed by Negueruela (2003).

The analysis I present below is my own analysis of students’ written discourse and I use direct quotations from students written texts. In chapter 7, I present the sentences each student identified as complex sentences and for which they provided verbalizations explaining their use of indicative or subjunctive.

6.3 Data analysis

In this section I present one table per student. The table contains the analysis of one task performed before CBT, four tasks after CBT and one essay written while doing the exam for the unit of modality. When the verbal tense or mood used in the referred dependant clause is inappropriate I mark that clause with an asterisk (*), other items considered agrammatical (agreement issues such number, spelling, omission of pronouns, etc.) are not taken into account because they are not within the scope of this study. The analysis presented below only studies the linguistic features relevant for this study.

In order to avoid confusion between the abbreviation for the task (T1, T2, T3 and T4) and the order in which the clauses appear, I coded the sentences with letters instead of numbers. In the tables below, I present a summary of clauses and thus use numbers. However, in appendix B each student chart is coded with letters and directly corresponds to each of the clauses presented in this chapter.
6.3.1 Participant #1

Table 6.1: Mood morphology in written tasks for participant #1

<table>
<thead>
<tr>
<th>#1</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>2</td>
<td>6/2*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>5/2*</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate use of tokens</td>
<td>3</td>
<td>11</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Inappropriate use of tokens</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total use of tokens</td>
<td>3</td>
<td>16</td>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

6.3.1.1 Participant # 1. Task: D

The following are complex sentences found in the first diagnostic of participant #1, which took place before any teaching of modality.

Da. Lo más que deseo es poder visitar lugares famoso de ese país.

What I desire the most is to be able to visit famous places in that country.

Db. Quiero tratar las diferentes comidas que ofrece este lugar.

I want to try different food offered in that place.
Dc. Tengo una preocupación muy grande y es que si me enfermo por comer o tomar algo ahí.

I have a big concern and it is that if I get sick for eating or drinking something there.

All the verbs in clauses in Da, Db and Dc above are conjugated in indicative. The indicative appropriately conveys the meaning in the overall context of the text.

6.3.1.2 Participant # 1. Task: T1

T1a. Se que vas a sentir.

I know you are going to feel.

T1b. Te va parecer estraño que te este escribiendo.

It is going to seem strange that I am writing to you.

T1c. Tal vez piensas que tu padre debería ser…

Maybe you think that your father should be…

T1d*. […] el que te este hablando.

[…] who is talking to you.

T1e. Se que estas pensando…

I know you will be thinking…

T1f. […] que yo no podría saber…

[…] that I could not know…

T1g. […] lo que te esta pasando.

[…] what is happening to you.

T1h. Yo si te entiendo lo que te esta sucediendo.

I do understand what is happening to you.
T1i. Yo quiero que tu llegue muy lejos.

I want you to get very far.

T1j*. Mi gran deseo es saber que tu entiendas.

My great desire is to know that you understand.

T1k. Quiero que tu estudies más…

I want you to study more…

T1l. […] y te mejores.

[…] and to improve.

T1m. Quiero que disfrutes tu juventud…

I want you to enjoy your youth…

T1n*. […] y que tu padre y yo te guiaremos…

[…] and that your father and I will guide you…

T1o*. […] y cuidaremos de ti.

[…] and will take care of you.

Participant 1 appropriately conjugates in present subjunctive the verbs found in clauses: T1b, T1i, T1k, T1l and T1m. However, in T1d*, because the verb in the main clause (debería) has conditional morphology, the verb in the dependant clause should be conjugated in past subjunctive (instead of present subjunctive) in order to have tense agreement. In T1j*, the dependant verb is conjugated in present subjunctive (entiendas) but it should be conjugated in present indicative (entiendes). T1m has three dependant clauses (T1m, T1n* and T1o*). The verbs in these clauses should be conjugated in subjunctive (T1n: guiemos and T1o: cuidemos). However, clauses T1n* (guiaremos) and T1o* (cuidaremos) are conjugated in future indicative.
Participant 1 appropriately uses the indicative in T1a, T1c, T1e, T1f, T1g and T1h. T1m has two dependant clauses T1m and T1n*. Participant 1 appropriately uses the subjunctive tense in T1m and although the subjunctive is still needed in T1n*, participant 1 chooses to use the future, an indicative tense in T1n*.

6.3.1.3 Participant # 1. Task: T2

T2a. Para que tengan un día de gracias perfecto…

For you to have a perfect Thanksgiving day…

T2b. […] tienen que estar seguros que la sala este limpia.

[…] you have to make sure that the living room is clean.

T2c. Que no haya polvo en las mesas y en el television.

That there is no dust on the tables and on the television.

T2d. Manolo conoce a alguien que da galletas gratis…

Manolo knows someone that gives away free cookies…

T2e. […] para que puedan tenerlas en la sala para los invitados.

[…] so that you can have them in the living room for the guests.

T2f. El papa de José quiere que yo le cocine.

Jose’s dad wants me to cook for him.

T2g. Quiero que me dejen un poco de arrozos…

I want you to leave me some rice…

T2h. […] para que nada salga mal.

[…] so that nothing goes wrong.

T2i. Yo espero que todos puedan portarse en una forma decente.

I hope that you all can behave in a decent way.
T2j. Dudo que se queden mucho tiempo.

I doubt that they can stay for long.

T2k. Quiero que tengan una cena deliciosa.

I want you to have a delicious dinner.

T2l. Ojalá que todos pueda tener todo listo…

I hope all of you can have everything ready…

T2m. […] para el tiempo que llegén los invitados.

[…] for the time the guests arrive.

In Task 2, participant 1 appropriately uses the indicative in the dependant clause of one complex sentence (T2d), and the subjunctive in twelve dependant clauses (T2b, T2c, T2f, T2g, T2i, T2j, T2k, T2l, T2a, T2e, T2h, T2m). The new types of clauses used in this task are adjectival clauses in indicative (T2d), and adverbial clauses in the subjunctive (T2a, T2e, T2h, T2m). The adverbial conjunctions used are *para que* in T2a, T2e and T2h. I consider Tm2 to be an adverbial clause because of its adverbial meaning: *para el tiempo que* (*para cuando*). It is worth noting that all the intended meanings were appropriately conveyed in the complex clauses of this task (T2).

6.3.1.4 Participant # 1. Task: T3

T3a. Lo que me molesta de mis amigos es…

What bothers me about my friends is

T3b. […] que siempre planean salir los días de la semana.

that they always plan to go out on week days.

T3c. Saben que hay clases.

They know there are classes.
Saber que mi novio se levanta todas las mañanas.

To know that my boyfriend wakes up every morning.

Ahora yo escogo amistades que se mejoran en la vida…

Nowadays I choose friendships that better themselves in life…

[…] que quieran hacer algo positivo con su vida.

[…] that they want to do something positive with their life.

Lo que me da miedo en esta vida es no poder ver a mi papa.

What I fear in this life is not to be able to see my dad.

Morir antes de encontrar el amor puro y verdadero era lo que me daba miedo.

Dying before finding pure and true love used to fear.

Yo pienso que todos en este país son ilegales.

I think that everybody in this country are illegal.

A mis padres no les importa que yo tome bebidas alcohólicas.

My parents do not mind that I drink alcoholic beverages.

Les disgustaban que yo no hiciera mis tareas de casa.

It bothered them that I did not do my house chores.

Mis padres me aconsejan que me mejore en esta vida…

My parents advised me that I improve in this life…

[…] y que termine la Universidad.

[…] and that I finish college.

A mis hijos yo les aconsejaría que estudien duro.

To my children I would advise them to study hard.
In task 3, participant 1 appropriately used the subjunctive in clauses T3f, T3j, T3l and T3m. In T3n*, because the verb in the first clause was conjugated in the conditional, the verb in the second clause should have been conjugated in past subjunctive (estudiaran) instead of present subjunctive (estudien).

Participant 1 appropriately used indicative in dependant clauses T3a, T3c, T3d, T3e, T3g and T3i. As can be seen in table 6.1, participant 1 incorporated past indicative and subjunctive in two complex sentences. In T3h, she appropriately used past indicative and in T3k, she appropriately used past subjunctive.

6.3.1.5 Participant # 1. Task: T4

T4a. Mamá es una lastima que tenga que estar lejos de usted.

Mom it is a shame that I have to be far away from you.

T4b. Es evidente que te estraño mucho…

It is evident that I miss you a lot…

T4c. Deseo que lo pase bien.

I hope you have a good time.

T4d. Me duele el alma saber que mi mejor amigo no me quiera hablar.

It hurts my heart to know that my best friend does not want to talk to me.

T4e. El hecho de que él lo creyo…

The fact that he believed it…

T4f. […] es lo mas triste que me hace sentir.

[…] is the saddest that it makes me feel.

T4g. Si necesitas algo te aconsajare…

If you need something I will advise you…
T4h. […] que hable con nuestros padre…

[…] to talk to our parents…

T4i. Es obvio que tendrás una familia…

It is obvious that you will have a family…

T4j. […] que te estrañara.

[…] that will miss you.

In task 4, participant 1 appropriately used subjunctive in T4a, T4c, T4d, T4h. and present or past indicative in T4b, T4e, T4f, T4g, T4i and T4j.

6.3.1.6 Participant # 1. Task: Ex

Exa. Muchas veces se hace difícil encontrar recurso que ayuden a los jóvenes.

Many times it is hard to find resources that help youth.

Exb. Eso causa que los niños cometan errores en la vida.

That causes children to make mistakes in life.

Exc Yo deseo que haya más programa…

I hope to have more programs…

Exd. […] [para] que los jóvenes pueda ir para aprender.

[…] for young people to be able to go to learn.

Exe. Ojalá que hubiera más gentes…

I wish there were more people…

Exf. […] que enseñaran sobre el riesgo de abortar.

[…] that taught about the risks of having an abortion.

Exg. Los jóvenes hoy en día no se dan de cuenta los riesgo que hay…

Young people nowadays do not realize the risk there is…
Exh. […] cuando no se protegen.

[…] when they do not protect themselves.

Exi. La mayoría no usan condones cuando tienen relaciones.

Most of them use condoms when they have relationships.

Exj. Yo no voy a ser una de las tipo de niñas que tiene sexo con cualquier persona.

I am not going to be the type of girl who has sex with whoever.

The verbs in Exa, Exb, Exc, Exd, Exe and Exf are appropriately conjugated in present or past subjunctive; and the verbs in Exg, Exh, Exi and Exj are appropriately conjugated in present indicative. As can be seen in Table 6.1, in task Ex, as she did in T2, participant 1 incorporated present subjunctive in an adverbial clause. She also used past subjunctive in two nominal clauses. Her progress is evident, especially in her modal use in new contexts as she did in T2 and Ex.

The incorporation of new contexts and new types of clauses is especially relevant. The recontextualization of meanings shows agency by way of intending to create new and significant meanings for the student in a specific task. It is also important because it shows different stages of emergent development of meaning (concept) and form (grammar) through written discourse.
6.3.1.7 Participant # 1. Overall appropriate use of subjunctive and indicative

Table 6.2: Distribution of subjunctive and indicative for participant # 1

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative/subjunctive</td>
<td>I S I S I S I S I S I S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal clause</td>
<td>2 0 6 5 8 7 4 5 4 4 45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjectival clause</td>
<td>1 1 1 1 2 1 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverbial clause</td>
<td>3 0 6 5 1 12 8 5 6 4 6 6 60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The highest number of clauses produced by participant # 1 was 45. Among these, 20 were used with a verb in indicative and 25 were used with a verb in subjunctive. The total number of adjectival clauses was 7, and within these seven 5 adjectival clauses had a verb in indicative and only 2 had a verb in subjunctive. On the other side, the total number of adverbial clauses was 8. Within this number, 3 had a verb in indicative and 5 had a verb in subjunctive. The adverbial clauses used were: *para que, para el tiempo, cuando* and *si*. *Para que* accompanied the subjunctive four times, and *para el tiempo* was also used with subjunctive once.
6.3.2 Participant # 2

Table 6.3: Mood morphology in written tasks for participant # 2

<table>
<thead>
<tr>
<th>#2</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D  T1   T2  T3  T4  Ex</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Present</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1 / 2*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adverbial</td>
<td>2*</td>
</tr>
<tr>
<td></td>
<td>Present</td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>2 / 2*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td>Past</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Past</td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>2 / 2*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Appropriate use of tokens</td>
<td>1 4 3 15 5 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inappropriate use of tokens</td>
<td>3 3 2 5 2 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total use of tokens</td>
<td>4 7 5 20 7 13</td>
<td></td>
</tr>
</tbody>
</table>

6.3.2.1 Participant # 2. Task: D

The following are complex sentences found in the diagnostic of participant #2.

Da. Mis deseos…es que quiero familiarizarme con la idioma de ese país.

My hopes…is that I want to familiarize myself with the language in that country.

Db*. No quiero que estoy perdida en un país extranjera.

I do not want to be lost in a foreign country.

Dc*. Ojalá que voy a tener alguien…
I wish I am going to have someone…

Dd*. […] que puedo divertirme con en ese país.

[…] that I can have fun with in that country.

Because sentence Da has the same subject in both clauses, it could be a simple sentence. Nonetheless, the use of the indicative in the subordinate clause is appropriate.

Db* has the same subject in both clauses and it would typically be structured as a simple sentence (*No quiero perderme*). However, as a complex sentence the verb in the dependant clause should be conjugated in present subjunctive, not indicative.

Dc* has two dependant clauses: Dc and Dd. The dependant verb in Dc* should be conjugated in present subjunctive. The same happens in Dd* where the verb in the dependant clause should also be conjugated in present subjunctive, and not indicative.

### 6.3.2.2 Participant # 2. Task: T1

T1a. Yo deseo que mis hijos graduyen del colegio…

I hope that my children graduate from college…

T1b. […] y si quieren que vayan al Universidade.

[…] and if they want to that they go to college.

T1c*. Yo trabajaria para que ellos tengan…

I would work for them so they have…

T1d. […] todas las cosas que yo no tenia…

[…] all the things that I did not have…

T1e. […] cuando era niña.

[…] when I was a child.

T1f*. Yo quiero que si mis hijos quieran tomar clases…
I want that if my kids want to take classes…

T1g*. [...] que yo tengo el dinero para pagarlo.

[...] that I have money to pay for it.

Verbs in clauses of T1a and T1b are appropriately conjugated in present subjunctive. In T1c* the mood choice is appropriate but due to the need of tense agreement the verb in the dependant clause should be conjugated in past subjunctive (tuvieran), not conditional (trabajaría).

T1f* shows confusion. The student begins the sentence with: “yo quiero que” and then inserts: “si mis hijos”, which seems to cause the student confusion in the structure of the sentence. The dependant verb in T1f* should be conjugated in present indicative, not subjunctive. According to the way T1f* is written, T1f has two dependant clauses: T1f* and T1g*. The verb in T1g* is conjugated in present indicative but should be conjugated in present subjunctive.

6.3.2.3 Participant # 2. Task: T2

T2a*. El día de gracias es una día para que la familia esta junto…

The perfect Thanksgiving day is a day for the family to be together…

T2b*. [...] y dar gracias…

[...] and give thanks…

T2c. [...] por las cosas que tiene.

[...] for the things that they have.

T2d. Espero que mi familia pueda olvidar las problemas.

I hope that my family can forget problems.

T2e. No creo que haya dificultades para hacer esto.
I don’t think there will be difficulties to do this.

The dependant verbs in T2d and T2e are appropriately conjugated in subjunctive, and T2c is appropriately conjugated in indicative. T2a* has two dependant clauses T2a* (está) and T2b* (dar), and both dependant verbs should be conjugated in present subjunctive (esté and dé respectively).

6.3.2.4 Participant # 2. Task: T3
T3a. Que me molesta de mis amigos ahora es…
   What bothers me about my friends is
T3b. […] que siempre estan jodiendome…
     that now they are always bothering me…
T3c. […] que yo escoja otro amigos contra ellos.
     […] that I choose other friends against them.
T3d. Que me molestaba antes es…
     What bothered me before was…
T3e. […] que yo tuviera que ser la persona mas grande…
     […] that I had to be the older person…
T3f. […] cuando habia un argumento.
     […] when there was an argument.
T3g. Lo que alegra mis días ahora es
     What makes my days now is…
T3h. […] que viva un otro día.
     […] that I live another day.
T3i*. Lo que me alegraba antes es la misma cosa.
What used to make my days is the same thing.

T3j. El tipo de amigos que yo escoge es…

The type of friends that I choose is…

T3k. […] gente que saben…

[…] people that know…

T3l*. […] lo que quieran.

[…] what they want.

T3m*. Mis amigos… no sabían que ellos quisieran.

My friends… did not know…

T3n. Que me da miedo en esta vida es

[…] what they wanted.

T3o. que mis notas para mis clases sean malo.

What I fear in this life is that my notes for my classes are bad.

T3p*. Que me daba miedo antes fuera mi mama.

What I used to fear before was my mom.

T3q. Creo que la inmigración ilegal es necesario.

I think that illegal immigration is necessary.

T3r*. Mis padres no tienen una problema que yo tomo bebidas alcóhlicas ahora.

My parents do not have a problem that I drink alcoholic beverages now.

T3s. Mis padres me aconsejan que yo exija en mi vida.

My parents advise me that I demand in my life.

T3t. Yo le aconsejara a mis hijos que provechara su vida.

I would advise my children that they take advantage in their life.
The verbs in clauses T3c, T3h, T3o, T3s, T3e and T3t are appropriately conjugated in present or past subjunctive; and the verbs in clauses T3a, T3b, T3d, T3f, T3g, T3j, T3k, T3n and T3q are appropriately conjugated in present or past indicative.

In T3i* (Lo que me alegraba antes es la misma cosa), the verb “es” should be conjugated in past indicative “era” in order to agree with the verbal tense in the main clause. In T3l* ([…] lo que quieran), the verb (quieran) should be in the indicative (quieren). The same way, the verb (quisieran) in T3m* (Mis amigos… no sabian que ellos quisieran) should be conjugated in past indicative (querían).

In T3p* ([lo que] Que me daba miedo antes fuera mi mama), the verb “fuera” should be conjugated in past indicative (era). In T3r* (Mis padres no tienen una problema que yo tomo bebidas alcohólicas ahora), the verb (tomo) should be conjugated in present subjunctive (tome).

The new types of clauses used in this task are nominal clauses in the past (in both indicative and subjunctive tense). As mentioned above, in T3f the past indicative was appropriately used. In T3e and T3t, the past subjunctive was appropriately used. In T3m* and T3p* the subjunctive was not appropriately used according to their context.

6.3.2.5 Participant # 2. Task: T4

T4a. Espero que tengas un buen dia.
I hope you have a good day.

T4b. Lo siento que no estoy contigo.
I am sorry I am not with you.

T4c. Gracias a Dios que vives un otro dia.
Thank God you live another day.
T4d*. ¿Por qué quieres que yo dejara de hablar mi mejor amigo?
Why did you want me to stop talking to my best friend?

T4e. Espero que te vayas bien con tu nueva vida.
I hope it goes well for your in your new life.

T4f. Ojalá que te guste su país nuevo…
I hope you like your new country…

T4g*. […] y que te acostumbra su vida allí con tu esposa.
[…] and that you get used to your life there with your wife.

In the dependant clauses T4a, T4e and T4f, participant 2 appropriately conjugated the verb in subjunctive. In T4b and T4c, she appropriately conjugated the verb in the dependant clause in indicative.

The main verb in T4d* is conjugated in the present (quieres), and its dependant verb in past subjunctive (dejara), due to lack of tense agreement this clause is considered incoherent. In T4g* ([…] y que te acostumbra su vida allí con tu esposa), the dependant verb (acostumbra) should be conjugated in subjunctive (acostumbres).

6.3.2.6 Participant # 2. Task: Ex

Exa. Hay bastante niños que necesitan una familia.
There are a lot of children that need a family.

Exb. Espero que pueda adoptar un niño en el futuro.
I hope you can adopt a child in the future.

Exc*. No es culpa de ellos que no tienen una familia.
It is not their fault that they do not have a family.

Exd. La adopción ayuda la agente que no pueden tener hijos tambien.
Adoption helps people that cannot have kids also.

Exe. Deseo que todo familias puedan estar juntos y alegre.

I wish that all the families can be together and happy.

Exf. Hay gente que usa el adopción como una solución.

There are people that use adoption as a solution.

Exg*. Es triste cuando hagan porque un bebe debe estar con su familia.

It is sad when they do it because a baby must be with her/his family.

Exh. Es un milagro para los que quieran hijos.

It is a miracle for the ones who want children.

Exi. Insisto en que la familia que adopta trate los niños bueno.

I insist that the family that adopts treats children good.

Exj. Ojalá que mas puedan adoptar.

I wish that more can adopt.

Exk. Toda(vía) hay bastante que estan en (orphanages).

Sti(ll) there are many that are in orphanages.

Exl. Ruego que pienses en otros…

I beg that you think in others…

Exm*. […] y adopta.

[…] and adopt.

The verbs in clauses Exb, Exe, Exh, Exi, Exj and Exl are appropriately conjugated in present subjunctive, and the verbs in clauses Exa, Exd, Exf and Exk are appropriately conjugated in present indicative.
The verb in clause Exc* is conjugated in present indicative (tienen) but it should be conjugated in present subjunctive (tengan). The verb in the dependant clause Exg* is conjugated in present subjunctive (hagan) but it should be conjugated in present indicative (hacen). The verb in the dependant clause Exm* is conjugated in present indicative (adopta) but it should be conjugated in present subjunctive (adoptes).

It is worth noting that even though in this last task there were no more new contexts of use introduced, participant 2 consistently showed appropriate use of the present subjunctive in nominal clauses. This use went up consistently beginning with two appropriate uses of present subjunctive in nominal clauses in T1, two in T2, four in T3, and finally six in Ex. It is interesting to note that the use of present indicative also grew consistently. In task D, there was one clause with appropriate use of indicative, one in T1, one in T2, two in T3, two in T4 and three in Ex.

6.3.2.7 Participant # 2. Overall appropriate use of subjunctive and indicative

Table 6.4: Distribution of subjunctive and indicative for participant # 2

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative/subjunctive</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
</tr>
<tr>
<td>Nominal clause</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>Adjectival clause</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Adverbial clause</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>38</td>
</tr>
</tbody>
</table>

The highest number of clauses used were nominal clauses with total number of 26. Among these, 9 had a verb in indicative; 17 had a verb in subjunctive. The second highest number of clauses used was 10 adjectival clauses. All of these clauses had a verb conjugated in indicative. There were only 2 adverbial clauses, one in indicative and one in subjunctive. The adverbial clause used was cuando.
6.3.3 Participant # 3

Table 6.5: Mood morphology in written tasks for participant # 3

<table>
<thead>
<tr>
<th>#3</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>7</td>
<td>3 / 1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>2*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>1</td>
<td>4 / 1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Infinitive</td>
<td>Nominal</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Appropriate use of tokens</td>
<td>2</td>
<td>9</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Inappropriate use of tokens</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total use of tokens</td>
<td>2</td>
<td>12</td>
<td>13</td>
<td>16</td>
</tr>
</tbody>
</table>

6.3.3.1 Participant # 3. Task: D

The only complex sentences found in the first diagnostic of participant # 3 are the following.

Da. Tengo que tener cuidado de que no salga del (budget?)…

I have to be careful to stay within the budget …

Db. […] que me dieron para mis vacaciones.

[…] that they gave me for my vacation.

The verb salga in Da was appropriately conjugated in present subjunctive.

The verb dieron in Db was appropriately in past indicative.
6.3.3.2 Participant # 3. Task: T1

T1a*. Yo quisiera que ustedes tengan la oportunidad de estudiar…
   I wish that you have the opportunity to study…

T1b*. […] en una escuela donde te podría educarte lo más eficiente posible.
   […] in a school where you could educate the most efficient possible.

T1c. Quiero que vivan en una casa…
   I want you to live in a house…

T1d. […] donde cada uno de ustedes tengan su propio cuarto…
   […] where each of you have your own room…

T1e. […] y con un patio donde puedan correr.
   […] and with a patio where you can run.

T1f. Quiero regalarte juguetes para que se diviertan…
   I want to give you toys so that you have fun…

T1g*. […] y juegan juntos.
   […] and play together.

T1h. Los padres siempre quieren que sus hijos tengan más que ellos mismos.
   Parents always want that their children have more than themselves.

T1i. Ojala que yo pueda darte…
   I wish I could give you…

T1j. […] todo lo que yo no tuve…
   […] everything that I did not have…

T1k. […] cuando yo era tus edades.
   […] when I was your age.
T1l. Espero que todo nos salga bien.

I hope that everything goes well.

Participant 3 shows consistent use of complex sentences with both subjunctive and indicative. In the dependant clauses T1c, T1d, T1e, T1f, T1h, T1i, T1l, participant 3 appropriately conjugated the verb in subjunctive, and in T1j and T1k, she appropriately conjugated the verb in the dependant clause in indicative.

T1a has two dependant clauses: T1a* and T1b. In T1a* participant 3 appropriately conjugates the verb in the dependant clause in subjunctive. However, because she begins her sentence using past subjunctive (yo quisiera), the verb in the dependant clause should be conjugated also in past subjunctive. The verb in T1b* is conjugated in indicative (podría) when it should be conjugated in subjunctive (pudieran). More specifically, the verb in T1b* should be conjugated in past subjunctive in order to agree with the verbal tense in the main clause.

T1f has two dependant clauses: T1f and T1g*. The verb in T1g is conjugated in indicative (juegan) but it should be conjugated in subjunctive (jueguen).

6.3.3.3 Participant # 3. Task: T2

T2a. Debemos levantarnos temprano y tener todo listo para cuando todos vengan a la casa.

We must get up early… and have everything ready for when everybody comes to the house.

T2b. Yo estoy muy entusiasta de que este año vamos a celebrar el día de gracias en nuestra casa.

I am very happy about celebrating Thanksgiving in our house this year.
T2c. Me parece una buena idea si recogemos a mi tía el día antes…

It seems like a good idea if we pick up my aunt the day before…

T2d. […] para que ella nos ayude cocinar…

[…] so that she can help us cook…

T2e. […] antes de que el resto de la familia llegue.

[…] before the rest of the family arrives.

T2f. Estoy segura de que todo saldrá bien.

I am sure that everything will turn out well.

T2g. Mis hermanos deben traer la otra mesa al comedor para que todos quepan.

My brothers must bring the other table to the living room for everybody to fit.

T2h*. Me gustaría que recemos juntos antes de comer.

I would like to play together before eating.

T2i. Sé que es típico comer papas con el pavo, pero…

I know that it is typical to eat potatoes with turkey, but…

T2j. […] creo que debemos cocinar arroz.

[…] I think that we should cook rice.

T2k. Creo que a casi todos le gustan el postre de manzana…

I think that almost every one likes apple dessert…

T2l. No olvides que toda la casa debe estar en la mejor condición.

Do not forget that every house should be in the best condition.

T2m. Hay que asegurarse de que mis hermanos recogan sus cuartos.

One should make sure that my brothers clean their bedrooms.
The verbs in clauses T2a, T2d, T2e, T2g and T2m are appropriately conjugated in subjunctive, and the verbs in clauses T2b, T2c, T2f, T2i, T2j, T2k, T2l are appropriately conjugated in indicative.

The verb in clause in T2h* is appropriately conjugated in subjunctive (recemos), but since the verb in the main clause is conjugated in conditional tense, the verb in the dependant clause should be conjugated in past subjunctive (rezáramos), not present.

6.3.3.4 Participant # 3. Task: T3

T3a. Ahora me molesta que mis amigos casi nunca me llaman.

Nowadays it bothers me that my friends almost never call me.

T3b. Antes me molestaba que siempre me llamaban muy tarde en la noche.

Before it bothered me that they always called me very late at night.

T3c*. Ahora me alegra que mis días en la universidad se acaben…

Nowadays it makes me happy that my days in the university end…

T3d. [...] tan pronto como me gradue en mayo.

[...] as soon as I graduate in May.

T3e. Escojo amigos que tengan hábitos o intereses similares que yo.

I choose friends that have similar habits and interests than me.

T3f. Antes tenía amigas que estaban en el equipo.

Before I had friends that were in the team.

T3g. Lo que me da más miedo en esta vida es…

What I fear the most in this life is…

T3h. que alguien me ataque en el oscuro.

[...] that someone attacks me in the dark.
T3i. Opino que los inmigrantes deben coger permiso…

I think that immigrants should get a permit…

T3j. […] para que no tengan ningún problema…

[…] so that they do not have any problem…

T3k. Cuando era más joven, no les gustaron cuando me dormía muy tarde mirando la televisión…

When I was younger, they did not like it when I slept very late watching television…

T3l. Mis padres me aconsejan que yo siga estudiando…

My parents advise me to keep studying…

T3m*. […] y enfocarme en la escuela…

[…] and to focus in school…

T3n. […] mientras que yo me divierta con mis amigos.

[…] while I have fun with my friends.

T3o. Yo les aconsejará a mis hijos que luchen…

I will advise my children that they fight…

T3p. […] por lo que quieran.

[…] for what they want.

The verbs in clauses T3d, T3e, T3h, T3j, T3l, T3n, T3o and T3p are appropriately conjugated in present subjunctive, and the verbs in clauses T3a, T3b, T3f, T3g, T3k and T3i are appropriately conjugated in present or past indicative.

The dependant verb in T3c* is in indicative (se acaban) but the present subjunctive is needed in order to have meaning agreement between T3c* and T3d ([T3c]...
Me alegra que mis días en la universidad se acaben [T3d] tan pronto como me gradue). The verb in T3m* is in indicative (enfocarme) and should be conjugated in subjunctive (me enfoque) also to continue the meaning agreement found in T3l ([T3l] Mis padres me aconsejan que yo siga estudiando [T3m*] y enfocarme en la escuela). In this task, participant 3 appropriately incorporates the use of an adjectival clause in past indicative in T3f.

6.3.3.5 Participant # 3. Task: T4

T4a. Espero que tengas un día muy divertido.
       I hope you have a very fun day.

T4b. Estoy segura de que te visitaré en el fin de semana.
       I am sure that I will visit you on the weekend.

T4c. Dudo que yo no pueda ir.
       I doubt I cannot go.

T4d*. No sé como ella pudiera hacerme tanto daño.
       I don’t know how she might have done so much harm to me.

T4e. No estoy segura de que ella le dijo a mi mejor amiga…
       I am not sure that she told my best friend…

T4f. […] para que no me hablara.
       […] so that she would not talk to me.

T4g. Hermano, deseo que disfrutes tu vida junto a tu esposa.
       Brother, I hope you enjoy your life with your wife.

T4h. Sé que tu serás un esposo bueno…
       I know you will be a good husband…
T4i. Que Dios nuestro Señor te bendiga…

May God our Lord bless you…

T4j. […] y que todos tus planes salgan bien.

 […] and that all your plans turn out well.

The verbs in clauses T4a, T4c, T4f, T4g, T4i, T4j are appropriately conjugated in subjunctive, and the verbs in clauses T4b, T4e and T4h are appropriately conjugated in indicative.

The verb in T4d*, a new context of use in this task, is conjugated in past subjunctive (pudiera). However, this verb should be conjugated in present indicative because the verb in the main clause is conjugated in present (sé) and thus its contextual meaning requires indicative.

6.3.3.6 Participant # 3. Task: Ex

Exa. Yo no estoy de acuerdo de que mujeres siempre tengan el derecho de matar a sus criaturas.

I do not agree that women always have the right to kill their babies.

Exb*. Aunque el bebé no ha nacido, todavía está vivo.

Even though the baby has not been born, she/he is still alive.

Exc. Espero que la ley del aborto cambie en el futuro.

I hope the abortion law changes in the future.

Exd. Hay mujeres que quisieran tener hijos pero no pueden.

There are women who would want to have kids but they cannot.

Exe. Espero que no vuelva a ser legal.

I hope that it is not legal again.
Exf*. Le aconsejo a la gente que no quieren hijos…

I advise people who do not want children…

Exg. […] que se cuiden.

[…] that they take care of themselves.

The verbs in clauses Exa, Exc, Exd, Exe and Exg are appropriately conjugated in present or past subjunctive. The dependant verb in Exb* is conjugated in present indicative (*ha nacido*) but it should be conjugated in present subjuntive (*haya nacido*). The dependant verb in Exf* is conjugated in present indicative (*quieren* [misspelling in original] as in *quieren*) but it should be conjugated in present subjunctive (*quieran*). The new context of use in this task is Exd in which participant 3 appropriately uses past subjunctive.

Since the first task, participant 3 incorporated a variety of complex sentences with indicative and subjunctive showing for the most part a high control of complex sentence structures, appropriate use of modality and coherent morphology. Moreover, as we can see in her chart, there is consistent use of present subjunctive in nominal clauses. In D, she appropriately used the present subjunctive in one complex sentence. In T1, there are four. In T2, there is one. In T3 there are four. In T4 there are five. In Ex there are four. It is important to note her use of past subjunctive in T4 and Ex.
6.3.3.7 Participant # 3. Overall appropriate use of subjunctive and indicative

Table 6.6: Distribution of subjunctive and indicative for participant # 3

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative/subjunctive</td>
<td>I S</td>
<td>I S</td>
<td>I S</td>
<td>I S</td>
<td>I S</td>
<td>I S</td>
<td>I S</td>
</tr>
<tr>
<td>Nominal clause</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Adjectival clause</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Adverbial clause</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

The highest number of clauses used was nominal clauses with a total of 33. Among these, 15 of these clauses were in indicative; 18 were in subjunctive. There were only 5 adjectival clauses. 2 were in indicative, and 3 in subjunctive. Within the 13 adverbial clauses, 2 were in indicative and 11 in subjunctive. The adverbial clauses used were: \(\text{cuando, para que, para cuando, mientras, tan pronto como, antes de que}\) and \(\text{donde}\). \(\text{Para que}\) was used with the subjunctive five times, \(\text{donde}\) accompanied the subjunctive twice. \(\text{Para cuando, mientras, tan pronto como}\) and \(\text{antes de que}\) were used with the subjunctive only once.
6.3.4 Participant # 4

Table 6.7: Mood morphology in written tasks for participant # 4

<table>
<thead>
<tr>
<th># 4</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>P R E S E N T</td>
<td>Indicative</td>
<td>Nominal</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>P A S T</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate use of tokens: 1 5 6 10 6 4
Inappropriate use of tokens: 1
Total use of tokens: 1 5 6 11 6 4

6.3.4.1 Participant # 4. Task: D

From the first task, participant 4 shows a high control of the use of modality and morphology. She appropriately used the present subjunctive in Da, an adverbial clause with *cuando*. The use of subjunctive or indicative morphology in the dependant clause using the adverbial clause *cuando* is sophisticated since the speaker could use both depending on the intended meaning.

Da. Cuando llegue a Argentina el lunes estaré en conferencia.

When I get to Argentina on Monday I will be in conference.
6.3.4.2 Participant # 4. Task: T1

T1a. Te aconsejo que por favor abras los ojos…

I advise you to please open your eyes…

T1b. […] y veas que la escuela te conviene.

[…] and see that school is good for you.

T1c. Quiero que le pongas mucha atención a tus maestros…

I want you to pay much attention to your teachers…

T1d. […] para que aprendas mucho…

[…] so that you can learn a lot…

T1e. […] y seas un hombre de bien.

[…] and be a good man.

The verbs in clauses T1a, T1b, T1c, T1d and T1e are appropriately conjugated in subjunctive. In this task (T1), participant 4 shows coherent use of morphology in nominal and adverbial clauses using the adverbial conjunction *para que* with both subjunctive and indicative.

6.3.4.3 Participant # 4. Task: T2

T2a. La familia es la que hace…

Family is who makes

T2b. […] que ese día sea divertido.

this day fun.

T2c. Creen que soy la mejor…

They believe that I am the best

T2d. […] que baila en la familia.
that dances in the family.

T2e. Pienso que esas son las cosas…
I think those are the things…

T2f. […] que se necesitan.
[...] that are needed.

The verb in clauses T2b and T2d are appropriately conjugated in present subjunctive, and the verbs in the dependant clauses T2a, T2c, T2e and T2f are appropriately conjugated in present indicative.

6.3.4.4 Participant # 4. Task: T3

T3a. Me molesta que mis amigos no tengan tiempo para mí.
It bothers me that my friends do not have time for me.

T3b. Antes me molestaba que yo no tuviera tantos amigos.
It used to bother me that I did not have so many friends.

T3c. Ahora me alegra que mi novio me llame todos los días.
Now it makes me happy that my boyfriend calls me every day.

T3d*. Antes tenía amigos que no tuvieran metas.
Before I had friends who did not have goals.

T3e. Lo más que me da miedo en esta vida es perder a mis seres queridos.
What I fear the most in this life is losing my beloved people.

T3f. Pienso que la inmigración ilegal debe controlarse más…
I think that illegal immigration should be more controlled…

T3g. […] para que este país no tenga una población tan alta.
[...] so that this country does not have such high population.
T3h. A mis padres no le importa que yo tome bebidas alcohólicas.

My parents do not mind that I drink alcoholic beverages.

T3i. Antes a mis padres les disgustaba que yo saliera sin permiso.

Before my parents did not like that I left without permission.

T3j. Mis padres me aconsejan que termine mi licenciatura.

My parents advise me that I finish my Bachelor’s degree.

T3k. Les aconsejaré a mis hijos que también atiendan a la universidad.

I will advise my children that they also attend college.

The verbs in clauses T3a, T3b, T3c, T3g, T3h, T3i, T3j and T3k are appropriately conjugated in present or past subjunctive, and the verbs in clauses T4e and T4f are appropriately conjugated in present indicative. All of these sentences, except for T3g, are nominal clauses. The adverbial conjunction used in T3g is para que. The dependant verb in T3d* is conjugated in past subjunctive (tuvieran), but should be past indicative (tenían).

In this task, the new context introduced was in past tense. There were two nominal clauses (T3b and T3i) and one adjectival clause (T3d*) in past subjunctive. In these latter clauses the conjugation of the verb was appropriately used, except for the last clause (T3d*).

6.3.4.5 Participant # 4. Task: T4

T4a. Espero que te estés divirtiendo mucho y…

I hope that you are having a lot of fun and…

T4b. […] que Dios te bendiga.

[…] that God bless you.
T4c. Quiero una explicación por lo que has hecho!

I want an explanation for what you have done!

T4d. Pienso que eres un buen amigo…

I think that you are a good friend…

T4e. …creo que merezco una disculpa.

…I believe I deserve an apology.

T4f. Me gustaría visitarte aunque te acomodes en tu nueva casa.

I would like to visit you even you settle in your new house.

The verbs in clauses T4a, T4b, T4f are appropriately conjugated in present subjunctive, and the verbs in clauses T4c, T4d and T4e are appropriately conjugated in present indicative. T4f is an adverbial clause using the conjunction aunque. The appropriate conjunction should be hasta que. However, the use of the subjunctive was coherent regardless of any confusion.

6.3.4.6 Participant # 4. Task: Ex

Exa. No quiero que ellos tengan que vivir entre esas personas.

I do not want them to have to live among those people.

Exb. Pienso que se necesita más ayuda para estas personas.

I think that more help is necessary for these people.

Exc. Si hubiera más ayuda hubiera menos uso de drogas.

If there were more help there would be less use of drugs.

Exd. Espero que en el futuro haya menos uso de drogas en mi vecindad.

I hope that in the future there is less use of drugs in my neighborhood.
The verbs in the dependant clauses Exa, Exd and Exc are appropriately conjugated in present or past subjunctive. The verb in the dependant clause Exb is appropriately conjugated in present indicative.

As mentioned above, participant 4 appropriately used the adverbial conjunction cuando in the task before CBT. After CBT, she continued to appropriately use adverbial causes with the adverbial conjunction para que and aún. It is interesting to note that a common new context of use in T2 (T2a, T2c, T2e and T2f), T3 (T3e and T3f) and T4 (T4c, T4d and T4e) has to do with nominal clauses in present indicative. Another context of use in T2 (T2a) was an adjectival clause in present subjunctive.

6.3.4.7 Participant # 4. Overall appropriate use of subjunctive and indicative

Table 6.8: Distribution of subjunctive and indicative for participant # 4

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative/subjunctive</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Nominal clause</td>
<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Adjectival clause</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Adverbial clause</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

The highest number of clauses used was nominal clauses with a total of 23. Among these, 8 were used in indicative and 15 were used in subjunctive. There were only 3 adjective clauses, all of them in indicative. There were 6 adverbial clauses, all of them in subjunctive. The adverbial clauses used were cuando, para que, aún and si. Cuando, aún and si were used with the subjunctive one time; para que was used with the subjunctive three times.
6.3.5 Participant # 5

Table 6.9: Mood morphology in written tasks for participant # 5

<table>
<thead>
<tr>
<th># 5</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>P R E S E N T</td>
<td>Indicative</td>
<td>Nominal</td>
<td>2</td>
<td>1/1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td>2/1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>SUB J U N T I V E</td>
<td>Nominal</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td>1</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>INF I N I T I V E</td>
<td>Nominal</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| P A S T | Indicative | Nominal       | 2 | 1 |    |     |    |
|         | Adjectival | 2            |    |    |    |     |    |
|         | Adverbial  | 1           |    |    |    |     |    |
| SUB J U N T I V E | Nominal | 3 | 10 | 6 | 10 | 10 | 4 |
|       | Adjectival | 2 | 4 | 4 | 1 | 2 |    |
|       | Adverbial  | 1           | 1* |    | 1 | 1*  |    |    |
| Appropriate use of tokens | 3 | 10 | 6 | 10 | 10 | 4 |
| Inappropriate use of tokens | 2 | 4 | 4 | 1 | 2 |    |
| Total use of tokens | 3 | 12 | 10 | 14 | 11 | 6 |

6.3.5.1 Participant # 5. Task: D

The following are complex sentences found in the second diagnostic of participant #1, which took place before any teaching of modality.

Da. He oído que este lugar tiene una rica historia.

I have heard that this place has a rich history.

Db. La única cosa en la que estoy preocupada, es con mi hablada del español.

The only thing with which I am worried is with my speaking in Spanish.

Dc. Me dijeron que las personas son muy criticales.

They told me that people are very critical.
Participant 5 appropriately used the present indicative in dependant clauses Da, Db and Dc.

6.3.5.2 Participant # 5. Task: T1

T1a. Hay muchas cosas que deseo para ustedes.
   There are many things that I wish for you.

T1b. Quiero que vivan en una casa lujosa…
   I want you to live in a luxurious house…

T1c. […] con todo lo que necesitan.
   […] with everything you need.

T1d. Quiero que participen en los deportes y en el baile como ballet o el teatro.
   I want you to participate in sports and in dancing such as ballet or theatre.

T1e. Deseo que ustedes tengan la oportunidad de viajar por todo el mundo…
   I hope you have the opportunity to travel around the world…

T1f*. […] y enriquecen en las diferentes culturas.
   […] and to be enriched with different cultures.

T1g. Trabajo muchas horas, cada día, para que puedan disfrutar de lo mejor en la vida.
   I work many hours, every day, so that you can enjoy from the best of life.

T1h. No quiero que la falta de dinero sea la razón…
   I do not want that the lack of money to be the reason…

T1i*. […] de que no viven el estilo de vida…
   […] that you do not live the life style…

T1j. […] que merecen…
   […] that you deserve.
In T1, participant 5 show consistent appropriate use of subjunctive morphology in nominal clauses (in six tokens) and in adverbial clauses (in one token). The verbs in clauses T1b, T1d, T1e, T1g, T1h. T1k and T1l are appropriately conjugated in present subjunctive, and the verbs in the dependant clauses T1a, T1c and T1j are appropriately conjugated in present indicative.

The dependant verb in T3f* is conjugated in present indicative (enriquecen), but should be present subjunctive (se enriquezcan) in order to have meaning agreement between T1e and T1f* ([T1e] Deseo que ustedes tengan la oportunidad de viajar por todo el mundo [T1f*] y enriquecen en las diferentes culturas).

The dependant verb in T3i* is conjugated in present indicative (viven), but should be present subjunctive (vivan) in order to have meaning agreement between T1h and T1i* ([T1h] No quiero que la falta de dinero sea la razón [T1i*] de que no viven el estilo de vida…).

6.3.5.3 Participant # 5. Task: T2

T2a. Es una oportunidad de tener reuniones con familiares que no hemos visto por meses.

It is an opportunity to have gathering with family member that we have not seen in months.

T2b. Es muy importante que nosotros organicemos el evento con tiempo…

It is improtant that we organize the event with time…
T2c. […] para asegurar que todos están de acuerdo…

[…] to make sure that everybody agrees…

T2d*. […] en que casa reunir…

[…] in which house to gather…

T2e. […] y que cada familia tiene un cuarto en donde quedar.

[…] and that each family has a room where to stay.

T2f. Debemos hacer una lista de que platos típicos y postres cada familia puedan traer.

We should make a list of what typical dishes and desserts each family can bring.

T2g*. Así que hay menos trabajo…

So there is less work…

T2h. […] para la familia en donde va hacer la cena.

[…] for the family where dinner is going to take place.

T2i*. La única cosa que falta es que no divertimos…

The only thing missing is that we have fun…

T2j*. […] y reímos mucho.

[…] and laugh a lot.

The verbs in clauses T2b and T2f are appropriately conjugated in present subjunctive, the verbs in clauses T2a, T2c, T2e and T2h are appropriately conjugated in present indicative.

The dependant verb in T2d* is an infinitive (reunir), but should be conjugated in present indicative (nos vamos a reunir). The dependant verb in T2g* is conjugated in present indicative (hay), but should be present subjunctive (haya). The dependant verbs in T2i* (divertimos) and T2j* (reímos) are conjugated in present indicative but should be
conjugated in present subjunctive (*divirtamos*) and (*riamos*) correspondingly. The new contexts of use in this task were the use of the present indicative in adverbial clauses (T2e and T2h).

6.3.5.4 Participant # 5. Task: T3

T3a. La cosa que me molesta más de algunos de mis amigos es…

The thing that bothers me the most about some of my friends is…

T3b. […] cuando me prometen cumplir algo y no lo cumplen.

[…] when they promise me to do something and they do not do it.

T3c. Nada de eso me daba la alegría que buscaba.

None of that gave me the happiness I was looking for.

T3d. Escogo amigos que tienen metas en la vida…

I choose friends that have goald in life…

T3e. […] y que están trabajando para cumplirlos.

[…] and that are working to accomplish them.

T3f. Antes tuve amigos que no eran amigos de verdad…

Before I had friends that were not my true friends…

T3g. La cosa que me da miedo ahora es no triunfar…

The think that I fear now is not to succeed…

T3h. Creo que es mejor…

I think that it is better…

T3i*. […] que los inmigrantes aplican por un visa…

[…] that immigrants apply for a visa…

T3j*. […] y no entrar ilegalmente.
[...] and do not enter illegally.

T3k*. Mis padres no les gustan que tomo bebidas alcohólicas porque...

My parents do not like that I drink alcoholic beverages because...

T3l. [...] creen que causa mis daño de salud.

[...] they believe that it damages my health.

T3m. [Me aconsejan] que estudie mucho...

[They advise me] to study a lot...

T3n*. [...] y que no me deja ser vencida.

[...] and not to give up.

The verb in clauses T3m is appropriately conjugated in present subjunctive, and the verbs in clauses T3a, T3b, T3c, T3d, T3e, T3f, T3g, T3h and T3l are appropriately conjugated in (present or past) indicative. The new, and coherent, context of use in this task is in nominal and adjectival clauses in past indicative, and adjectival in present indicative.

The verb in T3i* is conjugated in present indicative (aplican [misspelling in original]) but it should be conjugated in present subjunctive (apliquen). The verb in T3j* is an infinitive (entrar), but it should be conjugated in present subjunctive (entren). The dependant verb in T3k* is conjugated in present indicative (tomo), but it should be present subjunctive (tome). The dependant verb in T3n* is conjugated in present indicative (me deja) but it should be conjugated in present subjunctive (me deje).

6.3.5.5 Participant # 5. Task: T4

T4a. Espero que lo pases muy bien...

I hope you have a good time…
T4b. [...] y que Dios le bendiga con mucho, mucho más.

 [...] and God bless you with much, much more.

T4c*. Me da lástima no poder estar contigo pero cuando nos vemos de nuevo, te voy a sacar a tu restaurante favorita.

It is a shame to not be able to be with you but when we meet again, I am going to take you to your favorite restaurant.

T4d. No se que tienes conmigo…

I do not what you have with me…

T4e. […] lograste terminar un buen amistad que tuve.

 […] you succeeded in finishing a good friendship I had.

T4f. Espero que estés feliz…

I hope you are happy…

T4g. […] con lo que haz hecho.

 […] with what you have done.

T4h. Se que ya te vas a empezar una nueva vida muy lejos de aquí.

I know that you are going to start a new life far away from here.

T4i. …sé que solo estoy un avión separada de ti.

…I know that I am only an airplane away from you.

T4j. Recuerda que siempre estoy disponible…

Remember that I am always available…

T4k. […] cuando me necesites.

 […] when you need me.
The verbs in clauses T4a, T4b, T4f and T4k are appropriately conjugated in present subjunctive. The verbs in clauses T4d, T4e, T4g, T4h, T4i, and T4j are appropriately conjugated in (present or past) indicative. The verb in T3c* is conjugated in present indicative (vemos) but it should be conjugated in present subjunctive (veamos).

6.3.5.6 Participant # 5. Task: Ex

Exa*. Ella nos contó que los jóvenes ya empiezen a experimentar…

She told us that young people start experimenting…

Exb. […] y que es de más ventaja hablar honestamente…

[…] and that it is advantageous to talk honestly…

Exc*. […] y provear información sobre como se puedan prevenir contracciones de STD’s…

[…] and provide information about how to prevent STD’s infections...

Exd. Ella nos contó que estas programas han ayudado…

She told us that these programs have helped…

Exe. …algunos políticos creyen que es deber de los padres…

…Some politicians believe that it is the parents’ duty…

Exf. Es posible que tal vez un combinación de los dos puedan ser efectivos.

It is possible that maybe a combination between both can be effective.

The verb in clause Exf is appropriately conjugated in present subjunctive, and the verbs in clauses Exb, Exd and Exe are appropriately conjugated in present indicative. The verb in clause Exa* is conjugated in present subjunctive (empiecen) but it should be conjugated in present indicative (empiezan). The verb in the dependant clause Exc* is
It is interesting to note the consistent and coherent use of indicative in nominal clauses. In task D, there are three tokens. In T1, there are four. In T2, there are three. In T3, there are four. In T4, there are five. In Ex, there are three.

6.3.5.7 Participant # 5. Overall appropriate use of subjunctive and indicative

Table 6.10: Distribution of subjunctive and indicative for participant # 5

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative/subjunctive</td>
<td>1</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
</tr>
<tr>
<td>Nominal clause</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Adjectival clause</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Adverbial clause</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

The highest number of clauses used was nominal clauses with a total of 26. Among these, 14 were in indicative and 12 were in subjunctive. There were 12 adjectival clauses; 5 were in indicative and 1 in subjunctive. Within the 5 adverbial causes, 3 were in indicative and 2 in subjunctive. The adverbial clauses used were donde, cuando and para que. Only para que and cuando were used with a subjunctive verb.
6.3.6 Participant # 6

Table 6.11: Mood morphology in written tasks for participant # 6

<table>
<thead>
<tr>
<th># 6</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1 / 1*</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>2*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td>2/1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>2*</td>
<td>4 / 2*</td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate use of tokens</td>
<td>1</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Inappropriate use of tokens</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total use of tokens</td>
<td>6</td>
<td>15</td>
<td>13</td>
</tr>
</tbody>
</table>

6.3.6.1 Participant # 6. Task: D

The following are complex sentences found in the first diagnostic of participant #6, which took place before any teaching of modality.

Da*. Desearía conocer a los lugares nocturnos que se visitan más…

I would also wish to visit night places that are more visited.

Db*. […] y hacer amistades nuevas así no los valla a ver todo el tiempo.

[…] and to make new friendships even if I don’t get to see them all the time.

Dc. Suponiendo de que no es un país latino.
Suposing that is it not a Latin country.

Dd*. Tendría nervios también de tener dificultades en el trabajo, así solo valla a trabajar 3 días.

I would also be nervous to encounter difficulties at work, even if I am only going to work for three days.

De*. Mi major preocupación sería el viaje en avión, porque uno no sabe como le puede ir a uno…

My main concern would be traveling by plane because one never knows how it is going to go.

Df*. […] cuando esta en el aire.

[…] when one is in the air

The verb in clause Dc is appropriately conjugated in present indicative.

The verb in Da* is conjugated in present indicative (visitan) but because the main verb is conjugated in conditional, in order to follow tense agreement the dependant verb should be conjugated in past subjunctive (visitaran). The same happens in Db* and Dd*. In both Db* and Dd* and the verb “vaya” (present subjunctive) should be fuera (past subjunctive). The dependant verbs in De* (puede) and Df* (está) are conjugated in present indicative but they should be conjugated in present subjunctive (pueda and esté respectively).

6.3.6.2 Participant # 6. Task: T1

T1a. Ya sabras que eres mi adoración.

You will know that I adore you.

T1b*. Yo haría todo lo posible porque tu tengas…
I would do everything possible for you to have…

T1c. [...] todo lo que desees…

[...] everything you want…

T1d*. [...] y logres todos tus sueños.

[...] and for you to achieve all your dreams.

T1e. Trabajo muy duro para que tu tengas las oportunidades…

I work very hard for you to have opportunities…

T1f. [...] y aproveches…

[...] and take advantage…

T1g. [...] lo que la vida te ofrecera.

[...] of what life will offer.

T1h. Yo se que tu querras tener una educación superior en la universidad.

I know that you will want to have a higher degree from college.

T1i. Yo quiero ahorrar mucho dinero para que tú puedas asistir a la universidad…

I want to save a lot of money so you can attend the college…

T1j. [...] que quieras.

[...] of your choice.

T1k. Se que tu deseas estudiar medicina…

I know that you want to study medicine…

T1l. También, se que tu querras un carro bonito para transportarte y…

I also know that you will want a pretty car to transport yourself and…

T1m. [...] te lo dare cuando ya puedas conducir.

[...] I will give it to you when you can drive.
T1n. …te merecerás todas las cosas que todavía no puedes tener.

…you deserve all the things that you cannot yet have.

T1o. Pero, en muy pocos años tú tendrás lo que quieras…

But, in a few years you will have whatever you want…

The verbs in clauses T1e, T1f, T1i, T1j, T1m and T1o are appropriately conjugated in present subjunctive, and the verbs in clauses T1a, T1c, T1g, T1h, T1k, T1l and T1n are appropriately conjugated in present indicative. The verbs in T1b* (tengas) and T1d* (logres) are both conjugated in present subjunctive. However, because the main verb in T1b* is conjugated in conditional, the dependant verbs in T1b* and T1d* should be conjugated in past subjunctive (tuvieras and lograras respectively).

It is interesting to note that the coherent use of present subjunctive in adverbial clauses using the adverbial conjunctions para que (T1e, T1f, T1i) and cuando (T1m) reveals a high degree of control of the uses of modality from the very beginning.

6.3.6.3 Participant # 6. Task: T2

T2a. Quiero decirles que estoy muy entusiasmada…

I want to tell you that I am very happy…

T2b. Lo que más deseo es…

What I hope for the most is…

T2c. […] que todos puedan venir a tiempo…

[…] that everybody can arrive on time…

T2d. […] para que podamos ayudarle a mi madre en la cocina.

[…] so we can help my mother in the kitchen.

T2e. Yo sé que ella hará la mayoría de nuestra cena.
I know she will make most of our dinner.

T2f. Será bueno que le ayudemos un poco con algunas cosas.

It will be good that we help her a little with some things.

T2g. Es bueno que hagamos unas ensaladas.

It is good that we make salads.

T2h. Quiero que todos disfrutemos nuestra deliciosa cena.

I want everybody to enjoy our delicious dinner.

T2i. Espero que en ese día podamos rezar y darle gracias al Señor por todo...

I hope that on that day we can pray and thank God for everything...

T2j. [...] lo que nos brinda...

[...] we are given...

T2k. Quiero que nos sentemos a conversar.

I want us to sit down to chat.

T2l. Espero que todos se preparen para una noche muy especial.

I hope that everybody is prepared for a very special evening.

T2m. Mi madre dijo que todos están bienvenidos.

My mother said that everybody is welcome.

The verbs in clauses T2c, T2f, T2g, T2h, T2i, T2k and T2l are appropriately conjugated in present subjunctive, and the verbs in the dependant clauses T2a, T2b, T2e, T2j and T2m are appropriately conjugated in present indicative. T2d is an adverbial clause using the adverbial conjunction para que.

6.3.6.4 Participant # 6. Task: T3

T3a. Lo que me molesta de mis amigos ahora es…
What bothers me about my friends now is…

T3b. [...] que no tomen la iniciativa de llamarme…

 [...] that they do not take the initiative to call me…

T3c. [...] y que yo haga más esfuerzo para comunicarme con ellos.

 [...] and that I make more effort to communicate with them.

T3d. Antés, me molestaba que trataran de decírmme…

 Before, it bothered me that they tried to tell me…

T3e. [...] lo que tenía que hacer en mi vida personal.

 [...] what I had to do in my personal life.

T3f. Lo que alegra a mis días ahora es…

 What brightens my days now…

T3g. [...] saber que tengo personas muy queridas…

 [...] to know that I have beloved people…

T3h*. [...] que me apoyen en las buenas y las malas.

 [...] that support me in good and bad times.

T3i. Antes me alegraba que no tenía tantas responsabilidades.

 It made me happy that I did not have so many responsibilities before.

T3j. Los amigos que escojo son carismáticos…

 The friends I choose are charismatic…

T3k. Me atraen mucho las amistades sinceras, con las que pueda contar a la larga.

 I am attracted by sincere friendships, with whom I can count on in the long run.

T3l. Las amistades que tenía antes eran interesadas…

 The friendships I used to have were based on interest…
T3m. Me da mucho miedo de que no pueda lograr todos mis sueños.

I fear that I may not make all my dreams come true.

T3n. También [me da mucho miedo] que falle en algo…

Also [I fear much] that I fail in something…

T3o. […] cuando me case…

[…] when I get married…

T3p. […] y tenga hijos.

[…] and have children.

T3q. Lo que me daba miedo antes era no terminar la universidad…

What I feared before was not to finish college…

T3r. Yo pienso que la inmigración ilegal es un tema muy complicado.

I think that illegal immigration is a very complicated topic.

T3s. Las personas que quieran ir a otro país.

People who want to go to another country.

T3t. Me parece que no se puede juzgar las razones…

It seems to me that one cannot judge the reasons…

T3u. […] porque entren al país ilegalmente.

[…] for which they enter the country illegally.

T3v. No, a mi padres no les disgusta de que tome bebidas alcohólicas.

No, my parents do not mind that I drink alcoholic beverages.

T3w. Ellos no se enojan que yo tomé bebidas alcohólicas de vez en cuando.

They do not get mad that I drink alcoholic beverages every now and then.

T3x. Lo que me aconsejan mis padres…
What my parents advise me is…

T3y. [...] es que siga estudiando en la universidad…

[...] to continue studying in college…

T3z. [...] y que realice todos mis sueños.

[...] and to make all my dreams come true.

T3a2. Me aconsejan que sea más persistente…

They advise me to be more persistent…

T3b2. [...] y no me deje vencer.

[...] and not to give up.

T3c2. Lo que le aconsejaría a mis hijos…

What I would advise my kids…

T3d2. [...] sería que siguieran en la escuela…

[...] would be to continue in school…

T3e2*. [...] y logren sus sueños también.

[...] and also to make their dreams come true.

The verbs in clauses T3b, T3c, T3d, T3e, T3i, T3k, T3m, T3n, T3o, T3p, T3q, T3s, T3u, T3v, T3w, T3y, T3z, T3a2, T3b2 and T3d2 are appropriately conjugated in present or past subjunctive, and the verbs in clauses T3a, T3f, T3g, T3j, T3r, T3t, T3u and T3c2 are appropriately conjugated in present or past indicative. It is worth noting that T3o and T3p are adverbial clauses that use the adverbial conjunction cuando. As I mentioned before the use of cuando is sophisticated because the speaker could use either subjunctive or indicative depending on the meaning being conveyed.
The dependant verb in T3h* is conjugated in present subjunctive (*apoyen*) but it should be conjugated in present indicative (*apoyan*). Interestingly, the new and appropriate contexts of use in this task are both in past subjunctive (T3d and T3d2). In T3d, the main verb is conjugated in imperfect indicative, and the dependant verb in past subjunctive. In T3d2, the verb in the main clasue is conjugated in conditional, and participant 6 appropriately conjugated the dependant verb in past subjunctive. T3c2 has two dependant clauses: T3d2 and T3e2*. In T3e2* the verb is conjugated in present subjunctive (*logren*) but it should be conjugated in past subjunctive (*lograran*) due to agreement of tenses.

In T3w (*Ellos no se enojan que yo tomé bebidas alcohólicas de vez en cuando*), the context allows us to see that the student means to use the present subjunctive, even though the accent makes the verb seem that it is conjugated in preterit.

### 6.3.6.5 Participant # 6. Task: T4

T4a. Espero que te encuentres bien.

I hope you are doing well.

T4b. Yo haría lo que fuera para estar contigo.

I would do whatever to be with you.

T4c. Voy a dejar que te establezcas bien allí primero.

I am first going to let you establish there well.

T4d. Te prometo que sera muy pronto.

I promise you that it will be very soon.

T4e. Ojala que recibas mi regalo hoy…

I wish you get my present today…
T4f. [...] y me digas si te gusta.
   [...] and that you tell me if you like it.

T4g. Te quería decir que no me gusto nada…
   I wanted to tell you that I did not like at all…

T4h. [...] lo que le contastes a Rosa…
   [...] what you told Rosa…

T4i. [...] de lo que dije sobre su novio el otro día.
   [...] about what I told you about her boyfriend the other day.

T4j. Es verdad que no me gusta ese muchacho para ella…
   It is true that I don’t like that boy for her…

T4k. Espero que te valla bien en Venezuela…
   I hope it goes well for you in Venezuela…

T4l. [...] y que formes un matrimonio y familia muy bonita allí.
   [...] and that you have a nice marriage and family there.

T4m. Yo se que sera dificil acostumbrarte a la cultura e idioma pero…
   I know that it will be difficult to get used to the culture and language but…

T4n. [...] yo te aseguraré de que tu esposo estara a tu lado…
   [...] I will assure you that your husband will be by your side…

T4o. [...] para que los dos se acostumbrén.
   [...] so that you two can get used to it.

The verbs in clauses T4a, T4b, T4c, T4e, T4f, T4k, T4l and T4o are appropriately conjugated in present or past subjunctive, and the verbs in clauses T4d, T4g, T4h, T4i, T4j, T4m and T4n are appropriately conjugated in present or past indicative.
In this task, the student shows a high degree of awareness and control of the use of present (four tokens) and past indicative (three tokens) in nominal clauses. The same applies in present (six tokens) and past subjunctive (one token) in nominal and adverbial clauses (one token using the adverbial conjunction para que).

6.3.6.6 Participant # 6. Task: Ex

Exa. Es sumamente difícil …que tomen una posición…

It is extremely difficult…to take a position…

Exb. También hay muchas personas que se encuentran en una situación…

Also there are many people who find themselves in a situation…

Exc. […] en la que creen en la importancia de la vida de un bebe…

[… in which they believe in the importance of a baby’s life…

Exd. […] pero también en el derecho que la mujer tenga.

[…] but also in the rights that women may have.

Exe. Yo pienso que hay mujeres en situaciones…

I think that there are women in situations…

Exf. […] en las que una mujer puede tener un derecho de abortar…

[… in which a woman can have the right to have an abortion…

Exg. Hay instantes en las que lamentablemente las violan hombres sin escrupulos.

There are times in which unfortunately they are raped by unscrupulous men.

The verbs in clauses Exa and Exd are appropriately conjugated in present subjunctive, and the verbs in clauses Exb, Exc, Exe, Exf and Exg are appropriately conjugated in present indicative.
In this last task, even though participant 5 wrote more clauses in indicative (Exb, Exc, Exe, Exf, Exg) than subjunctive (Exa and Exd), the appropriate use of subjunctive and indicative show a high degree of grammatical control.

6.3.6.7 Participant # 6. Overall appropriate use of subjunctive and indicative

Table 6.12: Distribution of subjunctive and indicative for participant # 6

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative/subjunctive</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
</tr>
<tr>
<td>Nominal clause</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Adjectival clause</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Adverbial clause</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

The highest number of clauses used was nominal clauses with a total number of 58. Within these, 30 used indicative and 28 used subjunctive. There were 11 adjectival clauses; 7 used indicative and 4 used subjunctive. The 9 adverbial clauses found used subjunctive. The adverbial conjunctions used were *porque, para que* and *cuando*. *Para que* was used with subjunctive five times, and *cuando* was used with the subjunctive three times.
### 6.3.7 Summary

Table 6.13: Group summary of mood morphology in written tasks

<table>
<thead>
<tr>
<th>Type</th>
<th>Present Tense</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D</td>
<td>T1</td>
<td>T2</td>
</tr>
<tr>
<td>Ind</td>
<td>Nom</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Adj</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Adv</td>
<td>2*</td>
<td>2*</td>
<td>2*</td>
</tr>
<tr>
<td>Subj</td>
<td>Nom</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Adj</td>
<td>1</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Adv</td>
<td>1</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Inf</td>
<td>Nom</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Adj</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adv</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past</td>
<td>Ind</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Adj</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Adv</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Subj</td>
<td>Nom</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Adj</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Adv</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate use of tokens</td>
<td>11</td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td>Inappropriate use of tokens</td>
<td>8</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Total use of tokens</td>
<td>19</td>
<td>66</td>
<td>60</td>
</tr>
</tbody>
</table>

As can be seen in table 6.13, the summarized distribution of the appropriate use of all the participants’ tokens shows consistent development that progresses throughout tasks. The percentage of appropriate tokens in task D, before CBT, is 58%. In the tasks after CBT, this percentage increases. In T1, it is 77%. In T2, it is 88%. In T3, it is 87%.
In T4, it is 93%, and in Ex, it is 85%. The clauses with greater improvement were nominal clauses in present subjunctive. This was followed by nominal clauses in present indicative. Then nominal clauses in past indicative followed by nominal clauses in past subjunctive.

Altogether, the participants of this study created 310 clauses that appropriately used the indicative or the subjunctive. 69% of these were nominal clauses, 17% were adjectival and 14% were adverbial. As can be seen in the table below, 45% of the 310 clauses used the indicative and 55% the subjunctive.

### Table 6.14: Group summary of type of clause used and appropriate use of subjunctive and indicative

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td>I</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Nom</td>
<td>6</td>
<td>1</td>
<td>14</td>
<td>21</td>
<td>15</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>25</td>
<td>24</td>
<td>5</td>
<td>17</td>
<td></td>
<td>215</td>
</tr>
<tr>
<td>Adj</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Adv</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>2</td>
<td>9</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>2</td>
<td>19</td>
<td>32</td>
<td>22</td>
<td>31</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>27</td>
<td>28</td>
<td>11</td>
<td>22</td>
<td>18</td>
<td>141</td>
</tr>
</tbody>
</table>

### Table 6.15: Group summary of appropriate use of subjunctive and indicative

<table>
<thead>
<tr>
<th>Modality</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative</td>
<td>9</td>
<td>19</td>
<td>22</td>
<td>46</td>
<td>27</td>
<td>18</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>(82%)</td>
<td>(37%)</td>
<td>(42%)</td>
<td>(46%)</td>
<td>(49%)</td>
<td>(45%)</td>
<td>(45%)</td>
</tr>
<tr>
<td>Subjunctive</td>
<td>2</td>
<td>32</td>
<td>31</td>
<td>54</td>
<td>28</td>
<td>22</td>
<td>169</td>
</tr>
<tr>
<td></td>
<td>(18%)</td>
<td>(63%)</td>
<td>(58%)</td>
<td>(54%)</td>
<td>(51%)</td>
<td>(55%)</td>
<td>(55%)</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>51</td>
<td>53</td>
<td>100</td>
<td>55</td>
<td>40</td>
<td>310</td>
</tr>
<tr>
<td></td>
<td>(4%)</td>
<td>(16%)</td>
<td>(17%)</td>
<td>(32%)</td>
<td>(18%)</td>
<td>(13%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>
Considering the amount of appropriate complex clauses produced before and after STI, I divide the six participants of this study in three complex clause production groups: High (H), Mid (M), and Low (L).

**Table 6.16: Grouping according to amount of appropriate complex clauses produced**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>D</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td>H</td>
</tr>
<tr>
<td>2</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>M</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>4</td>
<td>L</td>
<td>L</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>5</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td>M</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>6</td>
<td>L</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>M</td>
<td>H</td>
<td>H</td>
</tr>
</tbody>
</table>

High=H, Mid=M, and Low=L.

Before STI, participant 1 was grouped in the High complex sentence production group. After observing her appropriate use of complex sentences, she was also placed in the same group after all her tasks were compared. Participant 2 was first grouped in the Low production group and at the end was placed in the Medium production group.

Participant 3 maintained a similar production level throughout the tasks. She began in the Medium production group and remained in it until the last task after STI. Participant 4 had a low production level from beginning to end and remained in the Low production group. Participant 5 was first placed in the High production group and moved down to the Medium production group at the end. Participant 6 began in the Low group and at the end was placed in the high production group.

**6.4 Conclusion**

Drawing from the results in student concept development in chapter 5, in this chapter I hypothesized that students’ semantic understanding of the theoretical concept of mood was going to have a positive impact on their discourse performance data, and that
this was going to allow us to see development at the discourse level. This hypothesis was confirmed after the analysis of one task (D) carried out before CBT, four tasks (T1, T2, T3 and T4) carried out after CBT, and one exam assessing the teaching unit of modality. The findings show consistent improvement in students’ discourse performance data. Specifically, there was notorious improvement in nominal clauses in present subjunctive, nominal clauses in present indicative, nominal clauses in past indicative and nominal clauses in past subjunctive.

The results presented in this chapter corroborate Negueruela’s (2003) findings that state that Vygotsky’s revolutionary pedagogy directly affects cognitive processes in which instruction leads development. Orientation in Galperin’s (1989) sense is key because affording students a materialized orienting basis makes it easy for learners to apply systematic knowledge during problem solving without prior memorization. In Gal’perin’s (Gal’perin, 1989) teaching approach students go through the complete learning process from beginning to end. One of the main goals to accomplish is achieving full awareness of the subject matter under study not only of the general but also of the particular.

In this chapter, written discourse development was observed through appropriate use of morphology and the expansion of new contexts encompassing new meanings and new types of complex sentences. However, as stated by (Vygotsky, 2004), a complete vision of a learner’s development should encompass what he did in the past, what he can do in the present and what he will do in the near future, that is the skills that are about to emerge. In this chapter, discourse data represents a past-to-present model. Definition and verbalization data offer, on the contrary, a present-to-future developmental perspective
that may provide qualitative changes in each student individual present-to-future
development. In the next chapter, I examine how the concept of verbal mood emerges
and proceeds as reflected in students written and verbalization data.
CHAPTER 7
FINDINGS (3)

7.1 Introduction

In order to study the development of the theoretical concept of modality and its application in written discourse with the aid of formal instruction in the six Heritage Language Learners of this study, in this chapter I examine discourse and verbalization data. This investigation focuses on the use of subjunctive or indicative morphology in the student-identified subordinated verb in conjunction with the verbalizations provided. The end goal is to observe how the concept of verbal mood emerges and proceeds in the learners under study.

This chapter is structured as follows. Section 7.2 describes the data analysis procedure and the participants whose data is presented in this chapter. Section 7.3 presents the data analysis of student-identified written discourse along with the verbalizations provided. It also illustrates the emergence and evolution of verbal mood. Section 7.4 presents summary tables of the group’s conceptual categories across written tasks along with verbalizations. Section 7.5 presents a discussion of findings. Section 7.6 concludes this chapter.

7.2 Data analysis procedure

Gal’perin’s research goal was to observe the cognitive transformation taking place internally (in mental actions) while the student was engaged in material actions during learning activity. In Gal’perin’s (Gal’perin, 1989) teaching approach students go through
the complete learning process from beginning to end. One of the main tasks to accomplish is achieving full awareness of the subject matter under study not only of the general but also of the particular. In conceptual formation studies, according to Vygotsky’s (1978) holistic Theory of Mind, verbalizations are key since they reveal how conceptual learning proceeds in cognitively mediated goal-oriented activity. In this chapter, verbalizations are the unit of analysis. Students’ verbal thinking will allow us to observe higher mental processes (self-organized attention, categorical perception, conceptual thinking, and logical memory) in progress, while utilizing a SCOBA (the desired orienting basis and material external cognitive tool to help students orient learning actions) in the process of creating and recontextualizing meanings in practical activity.

As mentioned in chapter 4, the Heritage Language Learners in this study may, to some extent, already possess empirical knowledge of the concept of modality. Depending on their personal histories and on where they find themselves in the bilingual continuum (See chapter 1). This is important since each learner came to this course with a specific Orienting Basis for Action (OBA). The OBA includes the formal and informal Spanish language experiences students may have had prior to taking a Spanish for Heritage Speakers’ course. One of the pedagogical goals in this course is to facilitate students’ transformation from their OBA into a SCOBA.

Studies analyzing student verbalizations are relevant especially with heritage speakers because they allow us to observe any transformation from empirical to theoretical understanding while using a SCOBA as an orienting cognitive tool. In this study, verbalizations will allow me to study qualitative changes in individual’s learning
processes at the microgenetic level. In the following paragraphs, I describe the sequence in which I present the data analysis of each participant.

7.2.1 Mood morphology categorization from student identified complex sentences: Analysis procedure

The complex sentences analyzed in this chapter are the ones identified by the students and for which they provided verbalizations. I begin each student discourse data analysis with a visual representation of the complex sentences produced by the student in a table. The table “Mood morphology categorization from student identified complex sentences” is meant to show the type of clause written by students at the grammatical production level, and to reveal grammatical accuracy. An asterisk (*) indicates that grammatical mood in a specific complex sentence is inappropriate (not accurate). The numbers in each box display the amount of clauses belonging to a nominal, adjectival or adverbial clause in the present or past tense. It is important to notice that this table does not include information about verbalizations. After this visual representation of the complex sentences produced by the student, I present a list of the complex sentences found in each task followed by an analysis of individual clauses in conjunction with the verbalization provided. After analyzing and classifying all verbalizations, I identify the complex sentences whose verbalizations were semantic, abstract and systematic and continue studying the emergence and evolution of the concept of verbal mood in the next section where I present the results of this analysis in a table.

After analyzing discourse data and verbalizations, I present a table illustrating the amount of complex sentences produced in the texts developed by students, then the
amount of complex sentences identified by students followed by the amount of verbalizations that were semantic, abstract and systematic.

The same way I did in my data analysis in chapter 6, in this chapter I only take into account verbalizations explaining the use of modality in complex sentences. Simple sentences were discarded. On a relevant note, in this work I am studying language awareness. I do not focus on the linguistic performance but on the the genesis and materialization of language awareness and development. Therefore, I do not claim a cause and effect result. My main focus is on the mediational use of the sign in goal directed activity, and on observing the relevance of verbalizations to regulate the process of development, awareness and control of modality in writing.

7.2.2 Student verbalizations in written tasks: Analysis procedure

In order to observe conceptual development in verbalizations, I analyze their orienting quality and transformation of students’ verbalization data. To do this, I use the same concrete essential features in theoretical concepts used to study conceptual definition data (in chapter 5). The features have six components: 1- generality (definition is based on semantic criteria), 2- abstractness (the definition includes essential features of the definition), 3- systematicity (the definition is coherent and inter-concept relations are visible), 4- explicability (student is able to provide a coherent definition), 5- functionality (it can orient discourse and it can be used in different contexts), and 6- significance (it shows awareness of intentionality).

The features of generality, abstractness, systematicity and functionality are interrelated. However, the feature of generality is the most independent. A verbalization was considered semantic if it was based on meaning, even if there was incoherence
between what the student was verbalizing and what she was actually doing. The feature of abstraction is very important in conceptual thinking. If the verbalization was not abstract, it was not systematic and thus not functional. Although, if the verbalization was considered to be somewhat abstract it could then still be systematic. In turn, a verbalization that is systematic is functional because it can orient future activity. Verbalizations were considered systematic if there was coherence between verbalization and complex sentence (what she is saying with what she is doing). This includes grammatical labels (indicative and subjunctive) and tense agreement. I summarize my analysis of each participant’s verbalizations in a table illustrating the features mentioned above at the end of the last written task (Ex).

The first three features of generality, abstractness and systematicity are used to identify verbalizations that were semantic, abstract, or somewhat abstract, and systematic. Because the focus of this project is on the development of Spanish subjunctive modality, after identifying the clauses that had appropriate use of subjunctive in written discourse, and the ones whose verbalizations were semantic, abstract or somewhat abstract and systematic, I am able to observe the emergence of the concept of modality through the appropriate use of the conceptual categories in the SCOBA. These categories were anticipation (A), influence (I), Commentary (C) and Evaluation of clause (EC). Findings are presented in a table displaying each participant’s emergence of the concept of modality in written tasks.

7.2.3 The tasks

The first four tasks analyzed in this chapter were homework writing activities. The prompts were open-ended. That is there was no right or wrong way to answer. The
answers was mainly linked to the topic of the prompt. The topics for tasks T1 through T4 asked students to write messages to family members or about their personal lives. Each prompt was designed to elicit the use of subjunctive or indicative modality in tasks in written texts. There was no limit of words for any of the tasks but the number of prompts changed as the teaching of modality progressed (See a task sample in Appendix F). The first task had two prompts. Prompts meant to elicit present subjunctive for which students developed written messages, I only used the first prompt because the two were similar and the first prompt elicited more use of complex sentences. The second task had one prompt meant to elicit nominal and adjectival clauses. The third task had seven questions acting as prompts. Each one of these questions was asked with a context in present and then in past tense in order to elicit present and past subjunctive in nominal, adjectival and adverbial clauses. The fourth prompt had three questions. Two of the questions were meant to elicit present subjunctive, and one of them was meant to elicit past subjunctive. The fifth task was an in-class test whose objective was to assess the teaching unit of modality. For this task, students had to introduce a controversial topic, present and support their opinion.

For the first four tasks, students provided verbalizations and explained to themselves the semantic reasons of the use of indicative or subjunctive in four different tasks using the SCOBA of modality. The span of time between tasks is as follows. There was a lapse of time of seven days between Task 1 and Task 2, and between Task 2 and Task 3; and a lapse of time of two days between Task 3 and Task 4 and Task 4 and EX.
7.2.4 Participants analyzed in this chapter

In this section, I analyze discourse and verbalization data of participants 1, 2 and 6. As expected, each student’s path of development was different. The decision to study these students was based on complex sentence production level, and on the way each seemed to use their assigned SCOBA. I chose to study participants 1 and 6 because both students were placed in a high complex sentence production level group (See chapter 6). However, their verbalizations showed very different levels of theoretical conceptual abstraction of modality. Participant 2 was placed in the medium production level group. Nonetheless, her verbalizations showed steady progression in terms of level of abstraction and evolution in her conceptual category designation. In the following section, I will first present the analysis of participant 1 and participant 6. This will be followed by the analysis of participant 2.
7.3 Data analysis

7.3.1 Participant #1

Table 7.1: Mood morphology categorization from student identified complex sentences in participant #1

<table>
<thead>
<tr>
<th>#1</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>T1V</td>
</tr>
<tr>
<td><strong>Present</strong></td>
<td>Indicative</td>
<td>Nominal</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
</tr>
<tr>
<td><strong>Past</strong></td>
<td>Indicative</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate use of tokens</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Inappropriate use of tokens</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total use of tokens</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

7.3.1.1 Participant #1. Discourse text and verbalizations in Task 1

T1V1. Yo quiero que tu *llegue* muy lejos en el futuro.

I want you to get very far in the future.

T1V2. Quiero que tu *disfrutes* tu juventud.

I want you to enjoy your youth.
The verbalizations of participant #1 were based on meaning (23 out of 23). Nonetheless, none of her verbalizations were highly abstract. In task 1, participant 1 provided one verbalization for both clauses. In her verbalization, she stated that the verbs in _llegue_ in T1V1 and _disfrutes_ in T3V2 (above) are both conjugated in subjunctive because they express anticipation.

### 7.3.1.2 Participant # 1. Discourse text and verbalizations in Task 2

T2V1. Para que _tengan_ un día de gracias perfecto.

For you to have a perfect Thanksgiving day…

T2V2. Que no _haya_ polvo en las mesas y en la television.

That there is no dust on the tables and on the television.

T2V3. Manolo conoce a alguien que _da_ galletas gratis.

Manolo knows someone that gives away free cookies…

T2V4. Quiere que yo _cocine_.

He wants me to cook for him.

T2V5. Quiero que _tengan_ una cena deliciosa.

I want you to have a delicious dinner.

The level of abstraction improved in oral verbalizations in Task 2. In T2V1, she identified the verb _tengan_ and stated that it transmits an attitude, that it is subjunctive and that it anticipates. In T2V2, she identified _haya_, and she states that it transmits an attitude, anticipation and hence it uses the subjunctive. In T2V3 she identified the verb _da_. In her verbalization, she said: “no transmite una actitud de anticipación, evaluación o comentario, influencia pero sí asegura información so se usa el indicativo” (it does not transmit an attitude of anticipation, evaluation or commentary, influence but it does assert
information so the indicative is used). For T2V4 she identified the verb *cocine*. In her verbalization she said: “esta oración sí transmite una actitud, una influencia so se usa subjuntivo” (this sentence transmits an attitude, an influence so the subjunctive is used). In T2V5, she identified the verb *tengan*. Her verbalization is the following: “anticipa, anticipo. Ojalá. Estoy reportando o asegurando. Estoy anticipando que la cena esté deliciosa para mi familia, para que el día de gracias sea perfecto so se usa el subjuntivo” (it anticipates, I anticipate. Wish. I am reporting or asserting. I am anticipating that the dinner is delicious for my family, so that Thanksgiving Day be perfect. So the subjunctive is used). In her verbalization it is clear that she goes back and forth between reporting/asserting (indicative) and anticipating (subjunctive). At the end, she coherently decides she is anticipating information. Interestingly, in T2V5 for the first time she clearly expresses an affirmation of agency when she says: “Anticipa” (the verb) and then quickly changes to “Anticipo” (I anticipate). She realizes it is her, the author is conveying modality through morphology, who is anticipating information, and not the verb.

7.3.1.3 Participant # 1. Discourse text and verbalizations in Task 3

T3V1. [Mis amigos] siempre planean salir los días de la semana cuando *saben* que hay clases.

[My friends] always plan to go out on week days when they know there are classes.

T3V2. El tipo de amistades que *tenia* antes…

The type of friends I used to have…

T3V3. […] eran de las que nunca le *gustaban* ir a clases.

[…] were the ones that never liked to go to classes.
T3V4. Que quieran hacer algo positivo con su vida.

That want to make something positive with their life.

T3V5. Lo que me da miedo en esta vida…

What I fear in this life…

T3V6. Les disgustaban que yo no hiciera mis tareas de casa.

It bothered them that I did not do my house chores.

T3V7*. A mis hijos yo les aconsejaría que estudien duro.

To my children I would advise them to study hard.

In Task 3, participant 1 provided written verbalizations that were shorter in nature. However, because this was the third task to be done for homework in addition to practice done in-class, I believe we must consider that a degree of abbreviation may be taking place at this point. According to Gal’perin (Haenen, 1996), the third parameter of an action is “degree of abbreviation”. The degree of abbreviation refers to the transition that takes place when the individual stops using all the operations of an action, in its extended version, and transitions to an abbreviated form. The individual abbreviates the operations of an action when identifying and using only the essential elements necessary to help him/her accomplish the action.

In T3V4, participant 1 coherently identified the verb quieran in the dependant clause as a verb conjugated in subjunctive. In her written verbalizations she wrote: “subjuntivo-anticipation” (subjunctive-anticipation). She also coherently identified the verb in main clauses T3V1, T3V5 as verbs conjugated in indicative. She wrote that T3V1 “asegura” (asserts), and for T3V5 she wrote “información nueva” (new information).
In T3V2, she identified the verb *tenia* (*tenía*) as a subjunctive form. In her verbalization she said: “comentario” (commentary). However, *tenía* is an indicative form. In T3V3, she identified the verb *gustaban* as a subjunctive form. In her verbalization she said: “subjuntivo, anticipación” (subjunctive, anticipation). But, the form is conjugated in indicative, not subjunctive. In T3V6, the dependant verb found in a complex sentence was identified as indicative. She said it was indicative and that “it reports/asserts”. Nonetheless, this verb was conjugated in subjunctive. In T3V7*, she appropriately conjugated the dependant verb of the clause in subjunctive. In her verbalization she wrote: “estudien: subjuntivo–anticipación”. However, because the verb in the main clause was conjugated in conditional, she should have conjugated the dependant verb in T3V7* it in past subjunctive (*estudiaran*), and not present subjunctive (*estudien*). Even though she appropriately identified the morphology as subjunctive, the reason she gave (*anticipación*) is not coherent with the meaning expressed in this clause.

7.3.1.4 Participant # 1. Discourse text and verbalizations in Task 4

T4V1. Es una lastima que *tenga* que estar lejos de usted.

It is a shame that I have to be far away from you.

T4V2. Es evidente que te *estraño* mucho…

It is evident that I miss you a lot…

T4V3. Deseo que lo *pase* bien.

I hope you have a good time.

T4V4. Es interesante como las personas hoy en día *pueden* ser tan cruel.

It is interesting how people nowadays can be so cruel.

T4V5. Si necesitas algo te aconsajare que *hable* con nuestros padre...
If you need something I will advise you to talk…

T4V6. Es obvio que tendrás una familia…

It is obvious that you will have a family…

Participant 1 also provided written verbalizations for task 4. She underlined the verb to which she was referring and wrote the written verbalization on the left margin of the paper. Only her verbalization for T4V1 was not completely semantic. In T4V1, she underlined both the phrase es una lástima and the verb tenga in the dependant clause. Then she wrote: “subjuntivo–comentario expresando una emoción” (subjuntivo-commentary expressing an emotion). This was categorized as a conceptualization based on a semantic/perceptual understanding. The rest of her verbalizations in this task were all semantic, abstract and systematic. In T4V5 she underlined hable. Her verbalization states the following: “subjuntivo-influencia” (subjunctive-influence).

In T4V3, she only underlined the verb in the main clause deseo and conjugated the verb in the main clause pase appropriately in present subjunctive. In her verbalization she wrote: “subjuntivo–anticipación, todavía no ha pasado pero hay una esperanza” (subjunctive-anticipation it has not happened yet but there is hope). In this latter verbalization, she equates anticipation with an event that has not happened yet, and then she adds “there is hope” as in English modality “it may/could happen”.

Participant 1 appropriately identified the verb in the dependant clauses in T4V2, T4V4, T4V6 as indicative. In T4V2, she underlined es evidente and extraño. Her verbalization states that: “indicativo–reportar, asegura certeza” (indicative-to report, assert certainty). In T4V4, she underlined es interesante and pueden. In her verbalization she wrote: “indicativo–reporta, asegura percepción y algo verdadero” (indicative-it
reports, asserts perception and something true). In T4V6, she underlined *es obvio* and *tendras*. She wrote: “indicativo-reporta, asegura certeza” (indicative-reports, asserts certainty). There was one sentence eliminated in this task because even though the student provided a verbalization for it, she did not underline any verb in the sentence.

7.3.1.5 Participant #1. Discourse text and verbalizations in Task Ex

ExV1. Yo deseo que *haya* más programa…

I hope to have more programs…

ExV2. Ojala que *hubiera* más gentes…

I wish there were more people…

ExV3. La mayoria no usan condones cuando *tienen* relaciones.

Most of them use condoms when they have relationships.

The three verbalizations for the only three complex sentences in Ex were all semantic, abstract and systematic. In ExV1, participant 1 coherently identified the verb *haya* in the dependant clause. For her verbalization she wrote: “subjuntivo-anticipación” (subjunctive-anticipation). In ExV2, she coherently identified the verb *hubiera*. In her verbalization she wrote: “subjuntivo-anticipación” (subjunctive-anticipation). Regarding the indicative, she coherently identified the verb *tienen* in the dependant clause ExV3 as a verb conjugated in indicative. In her verbalization she wrote: “indicativo-reporta” (indicative-it reports).

7.3.1.6 Differences between production and verbalizations: Participant #1

As can be seen below, participant 1 used a good amount of complex sentences in her texts (from T1 though Ex) (analyzed in chapter 6). Even though the number of
complex sentences she was able to identify was lower than the sentences she produced, her ability to identify complex sentences improved throughout tasks. Once the semantic, abstract and systematic verbalizations were identified, the number of complex sentence was further reduced. This allowed me to identify and to follow the quality of her verbalizations throughout time in specific clauses.

Table 7.2: Student identified complex sentences and semantic, abstract and systematic verbalizations

<table>
<thead>
<tr>
<th>Participant # 1</th>
<th>T1V</th>
<th>T2V</th>
<th>T3V</th>
<th>T4V</th>
<th>ExV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total use of complex sentences found by researcher in text</td>
<td>16</td>
<td>13</td>
<td>14</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total use of complex sentences identified and verbalized by student</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Total number of semantic, abstract and systematic complex sentences in verbalizations using subjunctive morphology</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

7.3.1.7 Student verbalizations: Participant # 1

The table below shows the categorization of the verbalizations provided by the students for the student identified complex sentences in each task. Some of these clauses were in indicative and some in subjunctive. The table below is meant to show changes between tasks in terms of the six features of generality, abstractness, systematicity, functionality, and significance.
Table 7.3: Categorization of verbalizations for participant # 1

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of clauses</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic (S)</td>
<td>S=2</td>
<td>S=5</td>
<td>S=7</td>
<td>S=5</td>
<td>S=3</td>
<td>S=22</td>
</tr>
<tr>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
<td>S/P=1</td>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
</tr>
<tr>
<td>P=0</td>
<td>P=0</td>
<td>P=0</td>
<td>P=0</td>
<td>P=0</td>
<td>P=0</td>
<td>P=0</td>
</tr>
<tr>
<td>b. functional (F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual (P)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y=0</td>
<td>Y=5</td>
<td>Y=2</td>
<td>Y=6</td>
<td>Y=3</td>
<td>Y=16</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Some=2</td>
<td>Some=0</td>
<td>Some=2</td>
<td>Some=0</td>
<td>Some=0</td>
<td>Some=4</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=0</td>
<td>N=0</td>
<td>N=3</td>
<td>N=0</td>
<td>N=0</td>
<td>N=3</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y=2</td>
<td>Y=5</td>
<td>Y=3</td>
<td>Y=6</td>
<td>Y=3</td>
<td>Y=19</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=0</td>
<td>N=0</td>
<td>N=4</td>
<td>N=0</td>
<td>N=0</td>
<td>N=4</td>
</tr>
<tr>
<td>No (N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y=2</td>
<td>Y=5</td>
<td>Y=3</td>
<td>Y=6</td>
<td>Y=3</td>
<td>Y=19</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=0</td>
<td>N=0</td>
<td>N=4</td>
<td>N=0</td>
<td>N=0</td>
<td>N=4</td>
</tr>
<tr>
<td>No (N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y=0</td>
<td>Y=1</td>
<td>Y=0</td>
<td>Y=0</td>
<td>Y=0</td>
<td>Y=1</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=2</td>
<td>N=4</td>
<td>N=7</td>
<td>N=6</td>
<td>N=3</td>
<td>N=22</td>
</tr>
<tr>
<td>No (N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall, the level of meaning based verbalizations, abstractness and systematicity was high in participant 1. Out of 23 complex sentences, 22 were semantically based. 16 were abstract, 4 somewhat abstract and 3 not abstract. 19 were systematic and 4 were not systematic. The same amount was considered functional for their level of abstractness and systematicity. As can be seen above, only once the participant acknowledged personal agency when expressed that it is her who is expressing specific meaning and not the verb alone. In order to observe conceptual development of Spanish modality, I further identified the verbalizations presented in the table above and identified only the complex sentences with subjunctive grammatical mood and whose verbalizations were semantic, abstract and systematic.
7.3.1.8 Emergence and evolution of the concept of verbal mood: Participant # 1

The clauses considered for the summary below were: 1- the ones which had appropriate use of subjunctive in written discourse, and 2- the ones whose verbalizations were semantic, abstract or somewhat abstract and systematic.

Table 7.4: Appropriate use of subjunctive in semantic, abstract and systematic verbalizations for participant # 1

<table>
<thead>
<tr>
<th>Participant</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A  (2)</td>
<td>A (3)</td>
<td>A (1)</td>
<td>A (1)</td>
<td>A (2)</td>
<td>A = 9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 (1)</td>
<td></td>
<td>1 (1)</td>
<td></td>
<td>I = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C   (1)</td>
<td></td>
<td>C = 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EC = 0</td>
</tr>
</tbody>
</table>

The concept of modality first emerged in Task 1 with use of the conceptual category of anticipation in the appropriate context in two instances in which the verb querer was used in the first clause. The level of abstraction was low in task 1 with short explanations such as “anticipation”. In Task 2, her verbalizations were characterized by more complete explanations. She clearly began by observing the category of meaning expressed (attitude or intelligence) and then identifying the conceptual category and then grammatical mood. In Task 2, she identified the concept of anticipation in an adverbial clause with para que (T2V1). Then with two nominal clauses: one with an omitted verb in the first clause (T2V2), and the other one with then with the verb querer (T2V5). The new conceptual category was the concept of influence in a nominal clause with the verb querer. Her verbalizations show that she is using her SCOBA with a top-down pattern. That is, she first identifies the type of information the text transmits, then the conceptual category, and finally the appropriate grammatical mood.

In Task 3, she provides written verbalizations that show that she first identified grammatical mood, then the conceptual category. In this Task, she had trouble identifying...
the correct morphology (subjunctive vs. indicative forms), and tense agreement (present subjunctive vs. past subjunctive). In T3V7* (A mis hijos yo les aconsejaría que estudien duro), she stated that the conceptual category was Anticipation (which she appropriately used in the last two tasks). However, it is not anticipation but influence. Nevertheless, in the adjectival clause T3V4, she appropriate used the conceptual category of anticipation in a new context (Busco amigos que).

In Task 4, she appropriately incorporated the conceptual category of commentary in T4V1, and appropriately identified the category of anticipation in T4V4. In T4V5, she appropriately identified the category of influence with the verb aconsejar in a similar context in which she had trouble identifying Influence before. In Task 4 she confirmed she had internalized the conceptual category of anticipation, by consistently using it in the four tasks before and in the last task twice.

It is important to note that in Task 1, 3 and 4 she provided written verbalizations. In task 3, by the order she follows in writing it seems that she may have changed the way to read her SCOBA. First, she identified grammatical mood and then the conceptual category. Nonetheless, even though she only provided one appropriate verbalization for a complex sentence using subjunctive in task 3, her conceptual understanding of modality improved in task 4. In task 4, participant 1 reaffirmed her understanding of the conceptual category of anticipation and influence and introduced the category of commentary.

It is interesting to note that participant 1 did not show awareness of the conceptual category of Evaluation of clause, according to her verbalizations, and she did not mentioned this category in her conceptual definition after CBT (see chapter 5). In her second definition after CBT, she wrote: “El subjuntivo expresa para mi lo que antico,
informo, influyo y lo que quiero expresar en una oración. El indicativo expresa para mí lo que quiero asegura con certeza y lo que estoy reportando por seguro y información verdadera” (the subjunctive expresses for me what I anticipate, inform, influence and what I want to express in a sentence. The indicative expresses for me what I want to assert with certainly and what I am reporting for sure and true information”. Nonetheless, her awareness and control of the conceptual categories of anticipation, influence and commentary emerged and developed from empirical to theoretical understanding.

7.3.2 Participant # 6

Table 7.5. Mood morphology categorization from student identified complex sentences in participant # 6

<table>
<thead>
<tr>
<th># 6</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>T1V</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>4/2*</td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Appropriate use of tokens</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Inappropriate use of tokens</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total use of tokens</td>
<td>13</td>
<td>---</td>
</tr>
</tbody>
</table>
7.3.2.1 Participant # 6. Discourse text and verbalizations in Task 1

T1V1*. Yo haría todo lo posible porque tu *tengas*…

I would do everything possible for you to have…

T1V2. […] todo lo que *deseas*…

[…] everything you want…

T1V3*. […] y *logres* todos tus sueños.

[…] and for you to achieve all your dreams.

T1V4. Trabajo muy duro para que tu *tengas* las oportunidades…

I work very hard for you to have opportunities…

T1V5. […] y *aproveches* lo que la vida te ofrecera.

[…] and take advantage of what life will offer.

T1V6. Yo se que tu *quieras* tener una educación superior en la universidad.

I know that you will want to have a higher degree from college.

T1V7. Yo quiero ahorrar mucho dinero para que tú *puedas* asistir a la universidad…

I want to save a lot of money so you can attend the college…

T1V8. […] que *quieras*.

[…] of your choice.

T1V9. Se que tu *deseas* estudiar medicina…

I know that you desire to study medicine…

T1V10. También, se que tu *quieras* un carro bonito y…

I know that you will want a pretty car to transport yourself and…

T1V11. […] te lo dare cuando ya *puedas* conducir.

[…] I will give it to you when you can drive.
T1V12. …te merecerás todas las cosas que todavía no puedes tener.

…you deserve all the things that you cannot yet have

T1V13. Pero, en muy pocos años tú tendrás lo que quieras…

But, in a few years you wil have whatever you want.

Participant 6 provided one explanation for the verbs identified in the clauses above. She wrote: “Yo use la mayoría de los verbos subjuntivos en este párrafo porque mi intención fue expresar una actitud mediante el significado del verbo en la primera cláusula de la oración. Quería anticipar hechos que no han ocurrido todavía. Solo son […] lo que quiero decir es que la mayoría de los verbos tarton de demostrar son como una anticipación del futuro, o algo que yo quiero que ocurra. También, trato de mostrar una influencia. Por ejemplo la palabra en aproveches, trato de darle una buena influencia a mi supuesta hija” (I used the majority of the verbs in subjunctive in this paragraph because my intention was to express an attitude through the meaning of the verb in the first clause of the sentence. I wanted to anticipate events that have not happened yet. They are […] What […] I want to say is that most of the verb try to show are like an anticipation of the future, or something that I want to happen. I also try to show an influence. For instance the word in to take advantage, I try to give a good influence to my supposed daughter). However, she failed to identify the verbs in indicative found in her text. These clauses are the following: T1V2, T1V6, T1V9, T1V10 and T1V12.

8 of the 13 verbalizations that had a subjunctive verb were based on meaning, and 5 of the clauses with indicative in the subordinate verb were considered to be based on perception, the lowest value in Generality. Only 6 (out of 8) verbalizations were considered systematic because of the lack of tense agreement in two of the items.
7.3.2.2 Participant # 6. Discourse text and verbalizations in Task 2

Participant 6 had technical problems with her verbalizations for task 2. She recorded her verbalizations for task 3 over her verbalizations for task 2. Therefore, I am not able to analyze her set of verbalizations for task 3 and will proceed to analyze discourse and verbalizations for task 3.

7.3.2.3 Participant # 6. Discourse text and verbalizations in Task 3

T3V1. [Lo que me molesta de mis amigos ahora es] que no tomen la iniciativa de llamarme...

[What bothers me about my friends now is] that they do not take the initiative to call me...

T3V2. [...] y que yo haga más esfuerzo para comunicarme con ellos.

[...] and that I make more effort to communicate with them.

T3V3. Antés, me molestaba que trataran de decirme lo que tenía que hacer...

Before, it bothered me that they tried to tell me...

T3V4*. [Lo que alegra mis días es] saber que tengo personas muy queridas que me apoyen en las buenas y las malas.

[What brightens my days is] to know that I have beloved people that support me in good and bad times.

T3V5. Antes me alegraba que no tenía tantas responsabilidades.

It made me happy that I did not have so many responsibilities before.

T3V6. Me atraen mucho las amistades sinceras, con las que pueda contar a la larga.

I am attracted by sincere friendships, with whom I can count on in the long run.

T3V7. Las amistades que tenía antes…
The friendships I used to have…

T3V8. Me da mucho miedo de que no pueda lograr todos mis sueños.
I fear that I may not make all my dreams come true.

T3V9. También que falle en algo…
Also that I fail in something…

T3V10. […] cuando me case…
[…] when I get married…

T3V11. […] y tenga hijos.
[…] and have children.

T3V12. Las personas que quieran ir a otro país…
People who want to go to another country…

T3V13. …no se puede juzgar las razones porque entren al país.
…one cannot judge the reasons for which they enter the country illegally.

T3V14. No, a mis padres no les disgusta de que tome bebidas alcohólicas.
No, my parents do not mind that I drink alcoholic beverages…

T3V15. Lo que me aconsejan mis padres es que siga estudiando en la universidad…
What my parents advise me is to continue studying in college…

T3V16. […] y que realice todos mis sueños.
[…] and to make all my dreams come true.

T3V17. Me aconsejan que sea más persistente…
They advise me to be more persistent…

T3V18. […] y no me deje vencer.
[…] and not to give up.
T3V19*. [Lo que le aconsejaría a mis hijos sería que siguieran en la escuela] y logren sus sueños también.

[What I would advise my kids would be to continue in school] and also to make their dreams come true.

Only 5 out of 10 items in Task 3 were semantically based. Within these 5, only 2 had verbalizations which were considered abstract and systematic. In the following four paragraphs, I present the verbalizations provided by participant 6 that had a subjunctive verb in the subordinate clause.

In T3V6, she identified the verb *pueda*. In her verbalization she said: “Los verbos que yo use aquí son pueda, que es un subjuntivo. Es algo que no ha sucedido todavía y es un deseo o una esperanza mía” (the verbs that I used here are to be able to, which is a subjunctive. It is something that has not happened yet and it is a wish or a hope of mine).

In T3V8, she identified the verb *pueda*. In her verbalization she said: “En esta oración usé pueda, que es un subjuntivo que no ha ocurrido todavía y es un deseo y una esperanza que yo tengo” (In this sentence I used to be able to, which is a subjunctive that has not happened yet and it is a wish or a hope that I have). Interestingly, only in T3V6 and T3V8 she acknowledged agency in her verbalization when saying “usé” (I used).

In T3V9, she identified the verb *falle*. In her verbalization she said: “Fallé es un… que falle, es un subjuntivo. Es una duda, no creer que algo ocurra y a la vez no ha sucedido todavía” (Failed is a […] that I fail, it is a subjunctive. A doubt. To not believe that something happens and at the same time it has not happened yet). In T4V10, she identified the verb *case*. In her verbalization she said: “Case es un subjuntivo, no ha
sucedido todavía y es un deseo y una esperanza mía” (to get married is a subjunctive, it has not taken place yet and it is a wish and a hope of mine).

In T4V11, she identified the verb *tenga*. In her verbalization she said: “*tenga* también es un subjuntivo es una petición y querer hacer algo. Algo que tampoco ha sucedido” (To have is also a subjunctive, it is a petition and to want to do something. Something that has not happened yet). In T3V12, she identified the verb *quieran*. In her verbalization she said: “*Quieran* que es un subjuntivo, es algo que no ha sucedido y es una esperanza y algo que uno espera que ocurra. Ojalá que ocurra” (To want to is a subjunctive, it is something that has not happened and it is a hope and something that one hopes will happen). In T3V13, she identified the verb *entren*. In her verbalization she said: “*Entren* es un subjuntivo que no ha ocurrido todavía. Es una recomendación o también puede ser una insistencia” (to enter is a subjunctive that has not happened yet. It is a recommendation or it can also be an insistence). In T3V14, she identified the verb *tome*. In her verbalization she said: “*Tome* que es un subjuntivo, es algo que no ha ocurrido y es una esperanza o una recomendación” (to drink is a subjunctive, it is something that has not happened and it is a hope or a recommendation). In T3V15, she identifies the verb *siga*. In her verbalization she said: “*Siga*, que es un subjuntivo. Algo que no ha ocurrido. Es una recomendación, deseo o esperanza” (to continue, which is subjunctive. Something that has not happened. It is a recommendation, wish or hope).

In T3V16, she identified the verb *realice*. In her verbalization she said: “*Relice*, es lo mismo. Un subjuntivo, algo que no ha sucedido y que es un deseo, una esperanza” (to accomplish, it is the same. A subjunctive, something that has not happened and it is a wish, a hope). In T3V17, she identified the verb *sea*. In her verbalization she said: “*Sea,*
es lo mismo” (same as her verbalization for T3V16). In T3V18, she identified the verb *deje*. In her verbalization she said: “Deje es subjuntivo, también. Que no ha ocurrido y se puede usar como una recomendación o también una insistencia” (to give up is subjunctive also. That it has not happened and it can be used as a recommendation or also an insistence). In T3V19*, she identified the verb *logren*. In her verbalization she said: “Logren, es también un subjuntivo. Algo que no ha ocurrido todavía y que usa uno como una recomendación o una esperanza, un deseo” (To accomplish, it is a subjunctive too. Something that has not happened yet and that one uses as a recommendation or hope, a wish). Although, the verb is indeed appropriate in subjunctive, because the verb in the main clause is conjugated in conditional, the verb in the dependant clause should be conjugated in past subjunctive (lograran), instead of present subjunctive.

The two clauses that were semantic, abstract and systematic were T3V5 and T3V7. In these clauses, the subordinate verb was in indicative morphology. In T3V5, she identified the verb *tenía*. In her verbalization she said: “Tenía es un indicativo que ya ocurrió y es algo cierto, es reportar que algo ya había sucedido o que yo había tenido, ya es el pasado” (had is an indicative that already happened and it is something true). In T3V7, she identified the verb *tenía*. In her verbalization she said: “Tenía es un indicativo que ya ocurrió. Algo cierto en la que estoy reportando algo” (had is an indicative that took place. Something true in which I am reporting something).

In T3V1, T3V2, T3V3 and T3V4, she misidentified the grammatical form of the verb in the subordinate clause. In T3V1, she identified the verb *tomen*. In her verbalization she said: “tomen es un indicativo que asegura que es algo cierto que ya ocurrió” (to take is an indicative that asserts that it is something true that happened). In
T3V2, she identified the verb *haga*. In her verbalization she said: “Haga es un indicativo que reporta o asegura algo que ya ocurrió” (to make is an indicative that reports or asserts something that already happened). In T3V3, she identified the verb *tenía*. In her verbalization she said: “Tenía es un subjuntivo. Es algo que no ha ocurrido y es una recomendación o algo para insistir que algo ocurra” (had is a subjunctive. Something that has not happened and it is a recommendation or something to insist for something to happen). In T3V4, she identified the verb *apoyen*. In her verbalization she said: “En estas oraciones usé los verbos apoyen que es un indicativo, es algo cierto que ya ocurrió y reporta y afirma algo que ya sucedió” (In these sentences I used the verbs to support which is an indicative, it is something true that already happened and it reports and affirms something that already happened).

7.3.2.4 Participant # 6. Discourse text and verbalizations in Task 4

T4V1. Espero que te *encuentres* bien.

I hope you are doing well.

T4V2. Voy a dejar que te *establezcas* bien allí primero.

I am first going to let you establish there well.

T4V3. Ojala que *recibas* mi regalo hoy…

I wish you get my present today…

T4V4. […] y me *digas* si te gusta.

[…] and that you tell me if you like it.

T4V5. [Te quería decir que no me gusto nada] lo que le *contastes* a Rosa…

[I wanted to tell you that I did not like at all] what you told Rosa…

T4V6. Espero que te *valla* bien en Venezuela …
I hope it goes well for you in Venezuela…

T4V7. […] y que formes un matrimonio y familia muy bonita allí.

[…] and that you have a nice marriage and family there.

T4V8. Yo te aseguraré de que tu esposo estara a tu lado.

I will assure you that your husband will be by your side…

T4V9. […] para que los dos se acostumbren.

[…] so that you two can get used to it.

T4V1 was the only item with subjunctive morphology in the dependant clause that was considred semantic, abstract and systematic. It was also the only item in which she used the conceptual category of anticipation. In T4V1, she identified the verb encuentres. In her verbalization she said: “Encuentres. Uso el subjuntivo porque estoy anticipando algo que no ha ocurrido todavía. Es una esperanza o deseo de mi parte” (to find. I use the subjunctive because I am anticipating something that has not happened yet). T4V5 was the only item with indicative morphology in the dependant clause that was considred semantic, abstract and systematic. In T4V5, she identified the verb contastes. In her verbalization she said: “Contastes. Uso el indicativo porque ya ocurrió, y estoy afirmando e informando” (Told. I use the indicative because it already happened and I am affirming or reporting).

T4V3, T4V6 and T4V7 were considered to be semantic/perceptual. Because of the understanding is perceptual, they are not coherent enough to be systematic and thus functional. Nonetheless, these clauses and their repetitive verbalizations have a low-level semantic basis. In T4V3, she identified the verb recibas. In her verbalization she said: “Recibas. Uso el subjuntivo porque no ha ocurrido y es una esperanza, o un quizas” (to
receive. I use the subjunctive because it has not happened and it is a hope, or a perhaps).

In T4V6, she identified the verb *valla* (*vaya*) [misspelling in original]. In her verbalization she said: “Valla. Subjuntivo, no ha sucedido, y es una esperanza o deseo” (To go. Subjunctive, it has not happened, and it is a hope or wish). In T4V7, she identified the verb *formes*. In her verbalization she said: “Formes. Subjuntivo, es una esperanza. Ojala que ocurra” (To form. Subjunctive, it is a hope. I hope that happens).

In the next paragraph, I present the items that have subjunctive morphology in the subordinate verb and whose verbalizations were considered perceptual followed by items whose morphologoy was misidentified and thus unsystematic.

In T4V2, she identified the verb *establezcas*. In her verbalization she said: “Establezcas. Uso el subjuntivo porque no ha ocurrido, y es un consejo o sugerencia” (Establish. I use the subjunctive because it has not happened, and it is an advice or suggestion).

In T4V4, she identified the verb *digan*. In her verbalization she said: “Digan. Uso el subjuntivo porque no ha sucedido y puede ser una recomendación o sugerencia. O tal vez esperanza también” (Tell. I use the subjunctive because it has not happened and it can be a recommendation or suggestion). In T4V9, she identified the verb *acostumbreren*. In her verbalization she said: “Acostumbren. Subjuntivo, no ha ocurrido, es un deseo” (Get used to. Subjunctive, it has not happened, it is a wish).

In T4V4 and T4V8 she misidentified the grammatical form of the verb in the subordinate clause. In T4V4, she identified the verb *quería*. In her verbalization she said: “Quería. Uso el subjuntivo porque no ha sucedido, y es una esperanza” (Wanted. I use the subjunctive because it has not happened, it is a hope of mine). In T4V8, she identified the
verb *estara* (estará). In her verbalization she said: “Estara. Subjuntivo, un deseo” (Will be. Subjunctive, a wish).

7.3.2.5 Participant # 6. Discourse text and verbalizations in Task Ex

ExV1. Es sumamente difícil para unas personas que *tomen* una posición.

It is extremely difficult for some people to take a position.

ExV2. También hay muchas personas que se *encuentran* en una situación…

Also there are many people who find themselves in a situation…

ExV3. […] en la que *creen* en la importancia de la vida de un bebe…

[…] in which they believe in the importance of a baby’s life…

ExV4*. […] pero también en el derecho que la mujer *tenga*.

[…] but also in the rights that women may have.

ExV5. Yo pienso que *hay* mujeres en situaciones…

I think that there are women in situations…

ExV6. Hay instantes en las que lamentablemente las *violan* hombres sin escrúpulos.

There are times in which unfortunately they are raped by unscrupulous men.

In ExV1, she identified the verb *tomen*. In her verbalization she said: “Tomen. Subjuntivo porque no es asegurado, y es una recomendación” (Take. Subjunctive, because it is not asserted. It is a recommendation). In ExV4*, she identified the verb *tenga*. In her verbalization she said: “tenga. Subjuntivo porque no es asegurado, y es una evaluación de cláusula” (Have. Subjunctive because it is not asserted, it is an evaluation of clause). However, this verb should be conjugated in present indicative (tiene) and not present subjunctive.
The two clauses that were considered semantic, abstract and systematic were ExV2 and ExV3, which used indicative morphology in the subordinate verb. In ExV2, she identified the verb *encuentran*. In her verbalization she said: “Encuentran. Indicativo porque es asegurado, ocurre, y esta dando información” (Find. Indicative because it is asserted, it occurs, and it is giving information). In ExV3, she identified the verb *creen*. In her verbalization she said: “Creen. Indicativo porque es verdad, y está dando información o explicando algo real” (Believe. Indicative, because it is true and it is giving information or explaining something real).

Participant 6 misidentified the morphology in clauses ExV5 and ExV6. In ExV5, she identified the verb *hay*. In her verbalization she said: “Hay. Subjuntivo porque no es verdad, es una evaluación de cláusula” (There are. Subjunctive because it is not true, it is an evaluation of clause). However the verb *hay* is conjugated in present indicative, not subjunctive. In ExV6, she identified the verb *violan*. In her verbalization she said: “Violan. Subjuntivo porque es un comentario” (Rape. Subjunctive, because it is a commentary). Nonetheless, this verb is not conjugated in subjunctive but in present indicative.

It is important to note, that even tough participant 6 was not able to base her verbalization on meaning in clause ExV4 or identify the appropriate morphology in ExV5 and ExV6, for the first time in all her verbalizations she used the conceptual categories of evaluation of clause (in ExV4 and ExV5), and commentary (in ExV6). We may then conclude that she was just beginning to acknowledge the conceptual categories that refer to the subjunctive grammatical mood in her SCOBA.
7.3.2.6 Differences between production and verbalizations: Participant #6

Participant 6 produced a high amount of complex sentences in her texts. Even though she was able to identify many complex sentences in her own text, her verbalizations were not completely semantic, abstract and systematic.

Table 7.6: Student identified complex sentences and semantic, abstract and systematic verbalizations

<table>
<thead>
<tr>
<th>Participant # 6</th>
<th>T1V</th>
<th>T2V</th>
<th>T3V</th>
<th>T4V</th>
<th>ExV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total use of complex sentences found by researcher in text</td>
<td>15</td>
<td>13</td>
<td>31</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Total use of complex sentences identified and verbalized by student</td>
<td>13</td>
<td>---</td>
<td>19</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Total number of semantic, abstract and systematic complex sentences in verbalizations using subjunctive morphology</td>
<td>6</td>
<td>---</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
7.3.2.7 Student verbalizations: Participant #6

Table 7.7: Categorization of verbalizations for participant #6

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of clauses</td>
<td>13</td>
<td>---</td>
<td>19</td>
<td>9</td>
<td>6</td>
<td>47</td>
</tr>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic (S)</td>
<td>S=8</td>
<td>---</td>
<td>S=5</td>
<td>S=2</td>
<td>S=5</td>
<td>S=20</td>
</tr>
<tr>
<td>b. functional (F)</td>
<td>F=0</td>
<td></td>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
</tr>
<tr>
<td>c. perceptual (P)</td>
<td>P=5</td>
<td></td>
<td>P=14</td>
<td>P=3</td>
<td>P=1</td>
<td>P=23</td>
</tr>
<tr>
<td>2- Abstractness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=0</td>
<td>---</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=6</td>
</tr>
<tr>
<td>Some (Some)</td>
<td>Some=8</td>
<td></td>
<td>Some=0</td>
<td>Some=3</td>
<td>Some=0</td>
<td>Some=11</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=5</td>
<td></td>
<td>N=17</td>
<td>N=4</td>
<td>N=4</td>
<td>N=30</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=6</td>
<td>---</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=12</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=7</td>
<td></td>
<td>N=17</td>
<td>N=7</td>
<td>N=4</td>
<td>N=35</td>
</tr>
<tr>
<td>4- Functionality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=6</td>
<td>---</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=12</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=7</td>
<td></td>
<td>N=17</td>
<td>N=7</td>
<td>N=4</td>
<td>N=35</td>
</tr>
<tr>
<td>5- Significance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=13</td>
<td>---</td>
<td>Y=2</td>
<td>Y=5</td>
<td>Y=0</td>
<td>Y=20</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=0</td>
<td></td>
<td>N=17</td>
<td>N=4</td>
<td>N=6</td>
<td>N=27</td>
</tr>
</tbody>
</table>

The level of abstraction of participant 6 was very low. In total, she provided 30 verbalizations that were not abstract, 11 that were somewhat abstract and 6 that were abstract. 20 of her verbalizations were semantically based, 3 were semantic/perceptual, 1 was functional/perceptual and 23 were perceptual. 35 of her verbalizations were not systematic, only 12 were systematic.

Although participant 6 began her verbalizations using her SCOBA in Task 1, after this she decided to use her OBA, which was based on empirical knowledge. As can be
seen in her verbalizations, her reasoning was following a bottom-up pattern in which she tried to explain modality on empirical knowledge.

### 7.3.2.8 Emergence and evolution of the concept of verbal mood: Participant # 6

Table 7.8: Appropriate use of subjunctive in semantic, abstract and systematic verbalizations for participant # 6

<table>
<thead>
<tr>
<th>Participant</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>A (5) I (1)</td>
<td>---</td>
<td>0</td>
<td>A (1)</td>
<td>0</td>
<td>A = 6 I = 1 C = 0 EC = 0</td>
</tr>
</tbody>
</table>

The concept of verbal mood first emerged in Task 1 with the use of the concept of anticipation in five instances (T1V4, T1V7, T1V8, T1V11 and T1V13) and influence in one instance (T1V5). The adverb in clause of T1V4 was *para* que, same as in clause T1V7, and *cuando* in T1V11. T1V8 was an adjectival clause (asistir a la universidad). T1V13 was a nominal clause with *lo que* (tendrás lo que quieras). T1V5 was also a nominal clause with *lo que* (aproveches lo que). After task 1, the only conceptual categorical concept that appeared in her verbalizations and was appropriately used was Anticipation with one instance in T4 (T4V1). The verb in the main clause of T4V1 was *espero*. The coherent use of present subjunctive in adverbial clauses using adverbial conjunctions revelas a high degree of control of the uses of modality from the very beginning.

As we can see in her conceptual definition after CBT (see chapter 5), Participant 6 shows understanding of grammatical and semantic mood when stating that the subjunctive is a conjugation that shows that something has not happened, it is not true or it is not real. However, by referring to the verbs *desear* (to wish), *esperar* (hope) and
querer (to want), she limits her understanding to an event that has not yet taken place.

The meaning of these verbs may refer to the conceptual categories of Anticipation and Influence (the only conceptual categories she mentioned in her verbalizations). However, meaning is not bound and can encompass many other contexts. As I mentioned in chapter 5, it seems that her understanding is still functional. Nonetheless, there is emergence of semantic understanding.

7.3.3 Participant # 2

Table 7.9: Mood morphology categorization from student identified complex sentences in participant # 2

<table>
<thead>
<tr>
<th># 2</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>T1V</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>1 / 1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>2 / 1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>1*</td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate use of tokens</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Inappropriate use of tokens</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total use of tokens</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

7.3.3.1 Participant # 2. Discourse text and verbalizations in Task 1

T1V1. Yo deseo que mis hijos graduen del colegio…
I hope that my children graduate from college…

T1V2. Si quieren que vayan al Universidad para terminar sus educaciones.

If they want to that they go to college.

T1V3*. Yo trabajaría para que ellos tengan todas las cosas.

I would work for them so they have…

T1V4*. Yo quiero que si mis hijos quieran tomar clases de bailar…

I want that if my kids want to take dance classes…

All the verbalizations provided by participant 2, including T1, T2, T3, T4 and Ex, were written. The verbalizations for clauses T1V1 and T1V2 are considered semantic, abstract and systematic. In the written verbalizations, participant 2 coherently identified the verb *graduen* in T1V1. Then she wrote: “transmite una actitud–anticipación” (it conveys an attitude–anticipation). In T1V2, she identified the verb *vayan* and wrote: “transmite una actitud–influencia y anticipación” (it conveys an attitude–influence and anticipation).

In T1V3*, she identified the verb *tengan* and wrote: “transmite una actitud–anticipación” (it conveys an attitude–anticipation). Nonetheless, the verb in the dependant clause in T1V3* should be conjugated in past subjunctive instead of present subjunctive. For this reason, the verbalization for this clause is considered incoherent (unsystematic).

In T1V4, she identified the verb *quieran* and wrote: “no transmite una actitud–no asegura” (it does not convey an attitude–it does not assert). This verbalization is incomplete. Eventhough I can infer by her verbalization that she is referring to the indicative, the verb is conjugated in subjunctive. This is contradictory and its general basis is considered perceptual.
7.3.3.2 Participant # 2. Discourse text and verbalizations in Task 2

T2V1*. El día de gracias es una día para que la familia esta junto.

   The perfect Thanksgiving day is a day for the family to be together…

T2V2. Espero que mi familia pueda olvidar las problemas y progresar.

   I hope that my family can forget problems and progress.

T2V3. No creo que haya dificultades para hacer esto.

   I don’t think there will be difficulties to do this.

   The verbalizations for clauses T2V2 and T2V3 are considered semantic, abstract and systematic. In T2V2, she coherently identified pueda and writes: “transmite una actitud–anticipación–usa el subjuntivo” (it conveys an attitude–anticipation–it uses the subjunctive). In T2V3, she identified haya and writes: “transmite una actitud–anticipación y comentario–usa el subjuntivo” (it conveys an attitude–anticipation and commentary–it uses the subjunctive).

   In T2V1, she identified the verb esta. In her written verbalization, she stated: “no transmite una actitud pero transmite inteligencia–indicativo” (it does not convey an attitude, but it conveys intelligence–indicative). However, this verb should be conjugated in subjunctive, not indicative.

7.3.3.3 Participant # 2. Discourse text and verbalizations in Task 3

T3V1. Siempre estan jodiendome que yo escoja otro amigos contra ellos.

   They are always bothering me that I choose other friends against them.

T3V2. Que me molestaba antes es que yo tuviera que ser la persona mas grande...

   What bothered me before was that I had to be the older person…

T3V3. Lo que alegra mis días ahora es que viva un otro día.
What makes my days now is that I live another day.

T3V4*. [Escojo gente que] saben lo que quieran.

[I choose people that] know what they want.

T3V5*. Mis amigos…no sabían que ellos quisieran.

My friends…did not know what they wanted.

T3V6. Que me da miedo en esta vida es que mis notas para mis clases sean malo este semestre.

What I fear in this life is that my notes for my classes are bad this semester.

T3V7*. Que me daba miedo antes fuera mi mama.

What I used to fear before was my mom.

T3V8*. Mis padres no tienen una problema que yo tome bebidas alcóhlicas ahora.

My parents do not have a problem that I drink alcoholic beverages now.

T3V9*. Cuando era joven bebiendo alcohol disgustara mis padres.

When I was young drinking alcohol bothered my padres.

T3V10. Mis padres me aconsejan que yo exija en mi vida.

My parents advise me that I demand in my life.

T3V11. Yo le aconsejaría a mis hijos que provechara su vida.

I would advise my children that they take advantage in their life.

The verbalization for clause T3V2 is considered semantic, abstract and systematic. In T3V2, she identified the verb tuviera. In her verbalization she coherently writes: “transmite una actitud–comentario–evaluación de cláusula–el subjuntivo pasado” (it transmits an attitude–commentary–evaluation of clause–past subjunctive). The verbalization for clause T3V6 was considered semantic, somewhat abstract and
systematic. In T3V6, she identified the verb *sean* and wrote: “anticipación–el subjuntivo presente” (anticipation–the present subjunctive).

The verbalizations for clauses T3V3, T3V7, T3V10 and T3V11 were considered semantic, somewhat abstract and unsystematic. In T3V3, she coherently identified the verb *viva*. In her verbalization she wrote: “transmite una actitud–anticipación–el subjuntivo presente” (it transmits an attitude–anticipation–the present subjunctive). In T3V7*, she identified the verb *fuera* and wrote: “evaluación de cláusula–comentario–el subjuntivo pasado” (evaluation of clause–commentary–the past subjunctive). However, this verb should be conjugated in past indicative, not subjunctive. In T3V10, participant 2 coherently identified the verb *exija* and in her verbalization she writes: “anticipación–el subjuntivo presente” (anticipation–present subjunctive). In T3V11, she identified the verb *provechara* and she wrote: “anticipación–el subjuntivo pasado” (anticipation–the past subjunctive). However, anticipation is not the appropriate conceptual category for T3V3, T3V10 or T3V11.

The verbalizations in clauses T3V1, T3V4, T3V5, T3V8 and T3V9 were considered perceptual. In T3V1, she identified the verb *escoja* and wrote: “el subjuntivo presente–no transmite una actitud y no transmite inteligencia” (the present subjunctive–it does not convey an attitude and it does not convey intelligence). Her verbalization is contradictory and this contradiction does not allow us to understand what she meant. In T3V4*, she identified the verb *quieran* and in her verbalization she wrote “transmite actitud–anticipación–el subjuntivo presente” (it conveys attitude–anticipation–the present subjunctive). However, this verb should be conjugated in indicative and not subjunctive. In T3V5*, she identified the verb *quisieran* and wrote: “transmite antitúd–anticipación–
el subjuntivo pasado” (it conveys attitude–anticipation–the past subjunctive). However, this verb should be conjugated in indicative and not subjunctive. In T3V8*, participant 2 coherently identified the verb *tomo* as indicative but her written verbalization is contradictory as it states: “no transmite una actitud–no transmite inteligencia–indicativo” (it does not convey an attitude–it does not convey intelligence–indicative). In T3V9*, she appropriately identified the verb *disgustara* as past subjunctive. However, this verb should be conjugated in past indicative. In her verbalization she said: “transmite una actitud–influencia–evaluación de cláusula” (it conveys an attitude–influence–evaluation of clause).

7.3.3.4 Participant # 2. Discourse text and verbalizations in Task 4

T4V1. Espero que *tengas* un buen día.
I hope you have a good day.

T4V2. Lo siento que no *estoy* contigo.
I am sorry I am not with you.

T4V3*. ¿Por que quieres que yo *dejara* de hablar mi mejor amigo?
Why did you want me to stop talking to my best friend?

T4V4. Espero que te *vayas* bien con tu nueva vida.
I hope it goes well for you in your new life.

T4V5. Ojalá que te *guste* su país nuevo…
I hope you like your new country…

T4V6*. [… ] y que te *acostumbra* su vida allí con tu esposa.
[…] and that you get used to your life there with your wife.
The verbalizations in clauses T4V1, T4V4 and T4V5 were considered semantic, abstract and systematic. In T4V1, she coherently identified the verb *tengas*. Her written verbalization states: “anticipación – subjuntivo presente” (anticipation–present subjunctive). In T4V4, she coherently identified the verb *vayas*. In her verbalization she wrote: “anticipación–subjuntivo presente” (anticipation–present subjunctive). In T4V5, she coherently identified the verb *guste*. In her verbalization she wrote: “anticipación – subjuntivo presente” (anticipation–present subjunctive).

The verbalization for T4V2 was considered perceptual. In T4V2 participant 2 coherently identified the verb *estoy* as indicative but her written verbalization is contradictory. It states: “no transmite una actitud–no transmite inteligencia–indicativo” (it does not convey an attitude–it does not convey intelligence–indicative). The basis for the verbalization of clause T4V3 was considered semantic and abstract but unsystematic. In T4V3*, she coherently identified the verb *dejara* as subjunctive. However it should be conjugated in present subjunctive and not past subjunctive. Her verbalization states: “influencia–anticipación–subjuntivo pasado” (influence–anticipation–past subjunctive). The basis for the verbalization of clause T4V6 was considered semantic but it was not considered abstract or systematic. In T4V6*, she identified the verb *acostumba* as present subjunctive, which was appropriate. However she conjugated this verb in present indicative. In her verbalization she wrote: “anticipación–subjuntivo presente” (anticipation–present subjunctive).

7.3.3.5 Participant # 2. Discourse text and verbalizations in Task Ex

ExV1. Hay bastante niños que *necesitan* una familia.

There are a lot of children that need a family.
ExV2. Espero que *pueda* adoptar un niño en el futuro.

    I hope you can adopt a child in the future.

ExV3. No es culpa de ellos que no *tienen* una familia.

    It is not their fault that they do not have a family.

ExV4. La adopción ayuda a la gente que no *pueden* tener hijos también.

    Adoption helps people that cannot have kids also.

ExV5. Deseo que todo las familias *puedan* estar juntos y alegre.

    I wish that all the families can be together and happy.

ExV6*. Es triste cuando *hagan* porque un bebé debe estar con su familia.

    It is sad when they do it because a baby must be with her/his family.

ExV7. Es un milagro para los que *quieran* hijos.

    It is a miracle for the ones who want children.

ExV8. Insisto en que la familia que adopta trate los niños bueno.

    I insist that the family that adopts treats children good.

ExV9. Ojalá que más *puedan* adoptar.

    I wish that more can adopt.

ExV10. Ruego que pienses en otros.

    I beg that you think in others…

The verbalizations for clauses ExV2 and ExV9 were considered semantic, abstract and systematic. In ExV2, she identified the verb *pueda*. Her written verbalization states: “anticipación–subjuntivo”. In ExV9, she identified the verb *puedan*. In her verbalization, she wrote: “anticipación–subjuntivo” (anticipation–subjunctive).
The verbalization for ExV1 was considered semantic, somewhat abstract since she didn’t get to identified the conceptual category, and systematic. In ExV1, she identified the verb *necesitan*. Her written verbalization states: “no hay actitud/influencia–indicativo” (there is no attitude/influence).

The verbalizations for ExV5, ExV7, ExV8 and ExV10 were considered semantic, somewhat abstract and unsystematic because the conceptual category provided was not appropriate for its context. In ExV5, she identified the verb *puedan*. In her verbalization she states: “anticipación, evaluación–subjuntivo” (anticipation, evaluation–subjunctive). In ExV7, she identified the verb *quieran*. In her verbalization she wrote: “evaluación–subjuntivo”. In ExV8, she identified the verb *trate*. In her verbalization, she wrote: “comentario, anticipación–subjuntivo” (commentary, anticipation–subjunctive). However, the appropriate conceptual category is not anticipation but influence. In ExV10, she identified the verb *pienses*. In her verbalization, she wrote: “anticipación–subjuntivo” (anticipation–subjunctive). However, it is not anticipation but influence.

The verbalization for clause ExV was considered semantic, not abstract and unsystematic. In ExV6*, she identified the verb *hagan*. In her verbalization she wrote: “evaluación, comentario–subjuntivo” (evaluation, commentary–subjunctive). However, due to the context the conjugation of the verb should be in present indicative.

The verbalizations for clauses ExV3 and ExV4 were considered perceptual, not abstract and unsystematic. In ExV3, she identified the verb *tienen*. Her written verbalization is contradictory as she writes: “no hay actitud/no reporta inteligencia – indicativo” (there is no attitude/it does not report intelligence – indicative). This is
contradictory. The same happens in ExV4 where she identified the verb *pueden* but provided the same verbalization she gave for ExV3 above.

### 7.3.3.6 Differences between production and verbalizations: Participant #2

Below we can see variation in mood morphology categorization between the complex sentences produced in written texts and the complex sentences identified by participant 2.

**Table 7.10: Student identified complex sentences and semantic, abstract and systematic verbalizations**

<table>
<thead>
<tr>
<th>Participant # 2</th>
<th>T1V</th>
<th>T2V</th>
<th>T3V</th>
<th>T4V</th>
<th>ExV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total use of complex sentences found by researcher in text</td>
<td>7</td>
<td>5</td>
<td>20</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Total use of complex sentences identified and verbalized by student</td>
<td>4</td>
<td>3</td>
<td>11</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Total number of semantic, abstract and systematic complex sentences in verbalizations using subjunctive morphology</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
7.3.3.7 Student verbalizations: Participant # 2

Table 7.11: Categorization of verbalizations for participant # 2

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of clauses</td>
<td>4</td>
<td>3</td>
<td>11</td>
<td>6</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic (S)</td>
<td>S=3</td>
<td>S=2</td>
<td>S=6</td>
<td>S=5</td>
<td>S=8</td>
<td>S=24</td>
</tr>
<tr>
<td>F=0</td>
<td>F=1</td>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
<td>F=1</td>
</tr>
<tr>
<td>P=1</td>
<td>P=0</td>
<td>P=5</td>
<td>P=1</td>
<td>P=2</td>
<td>P=9</td>
<td></td>
</tr>
<tr>
<td>b. functional (F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual (P)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=3</td>
<td>Y=2</td>
<td>Y=1</td>
<td>Y=4</td>
<td>Y=2</td>
<td>Y=12</td>
</tr>
<tr>
<td>Some (Some)</td>
<td>Some=0</td>
<td>Some=0</td>
<td>Some=5</td>
<td>Some=0</td>
<td>Some=5</td>
<td>Some=10</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=1</td>
<td>N=1</td>
<td>N=5</td>
<td>N=2</td>
<td>N=3</td>
<td>N=12</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=3</td>
<td>Y=4</td>
<td>Y=13</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=2</td>
<td>N=1</td>
<td>N=9</td>
<td>N=3</td>
<td>N=6</td>
<td>N=21</td>
</tr>
<tr>
<td>4- Functionality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=3</td>
<td>Y=2</td>
<td>Y=2</td>
<td>Y=3</td>
<td>Y=4</td>
<td>Y=13</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=1</td>
<td>N=1</td>
<td>N=9</td>
<td>N=3</td>
<td>N=6</td>
<td>N=21</td>
</tr>
<tr>
<td>5- Significance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>Y=0</td>
<td>Y=0</td>
<td>Y=0</td>
<td>Y=0</td>
<td>Y=0</td>
<td>Y=0</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=4</td>
<td>N=3</td>
<td>N=11</td>
<td>N=6</td>
<td>N=10</td>
<td>N=34</td>
</tr>
</tbody>
</table>

It is important to note that the level of abstraction seemed to remain steady throughout tasks. Out of 34 verbalizations, 12 were abstract, 10 somewhat abstract and 12 were not abstract.
Table 7.12: Appropriate use of subjunctive in semantic, abstract and systematic verbalizations for participant # 2

<table>
<thead>
<tr>
<th>Participant</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A (2) *</td>
<td>A (2) *</td>
<td>A (1) *</td>
<td>A (3)</td>
<td>A (2)</td>
<td>A = 10</td>
</tr>
<tr>
<td></td>
<td>I (1)</td>
<td>C (1)</td>
<td>C (1)</td>
<td>(1)</td>
<td>(2)</td>
<td>I = 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC (1)</td>
<td></td>
<td></td>
<td>C = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EC = 1</td>
</tr>
</tbody>
</table>

* In T1, T2 and T3 participant 2 provided two appropriate verbalizations for the same item and both verbalizations were counted.

The concept of verbal mood first emerged in Task 1 with use of the concept of anticipation in appropriate contexts in two instances (in T1V1 and T1V2). The first time with the verb desear (in T1V1), and the second with the verb querer (in T1V2). As we can see above, this conceptual category appeared in all the activities from beginning to end. In T1V2, she provided two conceptual categories: Anticipation and Influence. In Task 2, she appropriately identified the conceptual category of Anticipation twice (with the verb espero in the main clause of T2V2 and the verb no creo in the main clause of T2V3). In addition, she provided a second conceptual category for T2V3. The new conceptual category to be appropriately identified was Commentary.

In Task 3, she again used the conceptual category of Anticipation (in T3V6) with the main clause me da miedo, and the category of Commentary (in T3V2) with the main clause me molestaba, and in this same clause introduced the category of Evaluation of clause. In Task 4, she identified the conceptual category of Anticipation in T4V1, T4V4 and T4V5. The verbs in the main clauses were esperar in T4V1 and T4V4; and the phrase ojalá in T4V5. The verbs esperar and the phrase ojalá also appeared in the last
task (Ex), where she also appropriately identified these clauses with the concept of Anticipation in a different context.

The conceptual definition she provided after CBT (see chapter 5) was semantic and systematic. She wrote: “El subjuntivo significa cuando hay antipación o evaluación de cláusula o también cuando no transmite inteligencia. El indicativo significa cuando el verbo no transmite actitud pero transmite inteligencia” (the subjunctive means when there is anticipation or evaluation of clause or also when it doesn’t transmit intelligence. The indicative means when the verb doesn’t transmit attitude but it transmits intelligence). Her definition is based on meaning and it is systematic. However, it is not abstract enough. It does not include all the essential features in her definition. Nonetheless, as we can see in her written discourse and her verbalizations, she was able to base her decision on meaning, her verbalizations were mostly abstract and systematic.
7. 4 Summary tables

7.4.1 Group summary of verbalizations

Table 7.13: Group distribution of verbalizations

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>T1</th>
<th>T2*</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of clauses</td>
<td>41</td>
<td>27</td>
<td>72</td>
<td>43</td>
<td>29</td>
<td>212</td>
</tr>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic (S)</td>
<td>S=27</td>
<td>S=16</td>
<td>S=53</td>
<td>S=27</td>
<td>S=25</td>
<td>S=148 (70%)</td>
</tr>
<tr>
<td>P=13</td>
<td>P=2</td>
<td>F=0</td>
<td>P=19</td>
<td>P=0</td>
<td></td>
<td>S/F=1 (.5%)</td>
</tr>
<tr>
<td>S/F=1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional (F)</td>
<td>Y=10</td>
<td>Y=12</td>
<td>Y=24</td>
<td>Y=24</td>
<td>Y=16</td>
<td>Y=86 (41%)</td>
</tr>
<tr>
<td>P=2</td>
<td>P=12</td>
<td>F=0</td>
<td>F=0</td>
<td>F=0</td>
<td></td>
<td>S/P=4 (2%)</td>
</tr>
<tr>
<td>P=9</td>
<td>P=19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P=F=1 (6%)</td>
</tr>
<tr>
<td>c. perceptual (P)</td>
<td>Y=10</td>
<td>Y=12</td>
<td>Y=24</td>
<td>Y=24</td>
<td>Y=16</td>
<td>Y=86 (41%)</td>
</tr>
<tr>
<td>N=10</td>
<td>N=26</td>
<td>N=9</td>
<td>N=10</td>
<td>N=5</td>
<td></td>
<td>S/P=4 (2%)</td>
</tr>
<tr>
<td>N=13</td>
<td>N=26</td>
<td>N=9</td>
<td>N=10</td>
<td>N=5</td>
<td></td>
<td>N=66 (31%)</td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=20</td>
<td>N=12</td>
<td>N=44</td>
<td>N=21</td>
<td>N=12</td>
<td>N=109 (51%)</td>
</tr>
<tr>
<td>Some (So)</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>No (N)</td>
<td>N=20</td>
<td>N=12</td>
<td>N=44</td>
<td>N=21</td>
<td>N=12</td>
<td>N=109 (51%)</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=20</td>
<td>N=12</td>
<td>N=44</td>
<td>N=21</td>
<td>N=12</td>
<td>N=109 (51%)</td>
</tr>
<tr>
<td>No (N)</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=20</td>
<td>N=12</td>
<td>N=44</td>
<td>N=21</td>
<td>N=12</td>
<td>N=109 (51%)</td>
</tr>
<tr>
<td>No (N)</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
<tr>
<td>Yes (Y)</td>
<td>N=20</td>
<td>N=12</td>
<td>N=44</td>
<td>N=21</td>
<td>N=12</td>
<td>N=109 (51%)</td>
</tr>
<tr>
<td>No (N)</td>
<td>Y=21</td>
<td>Y=15</td>
<td>Y=28</td>
<td>Y=22</td>
<td>Y=17</td>
<td>Y=103 (49%)</td>
</tr>
</tbody>
</table>

*Neither participant 5 nor 6 provided verbalizations for Task 2.

The total amount of verbalizations produced was 212. 70% of these verbalizations were semantically based, 26% were based on perception, 2% were based on semantic/perceptual reasons, 1% of these verbalizations was based on functional reasons, and .5% were based on semantic/functional and functional/perceptual reasons. 41% of the verbalizations provided were considered abstract, 28% were somewhat abstract and 31% were not abstract. 49% were systematic, and 51% were unsystematic. The same number
of systematic verbalizations (49%) was also considered functional due to the ability of
the student to identify appropriate morphology (indicative vs. subjunctive), and to follow
tense agreement (present vs. past). 51% of these verbalizations were not functional. In
33% of the verbalizations provided, students emphasized intentionality by positioning
themselves as the authors of the meaning expressed in their complex sentences as in *usé*
(I used), instead of *Es* (it is).
## 7.4.2 Summary of conceptual categories across written tasks

**Table 7.12: Group distribution of interrelated conceptual categories**

<table>
<thead>
<tr>
<th>P**</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A (2)</td>
<td>A (3)</td>
<td>A (1)</td>
<td>A (1)</td>
<td>A (2)</td>
<td>A=9 (75%)  I=2 (17%) C=1 (8%) EC=0 (0%)</td>
</tr>
<tr>
<td></td>
<td>A (1)</td>
<td>I (1)</td>
<td></td>
<td>I (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I (1)</td>
<td>C (1)</td>
<td></td>
<td>C (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A (2) *</td>
<td>A (2) *</td>
<td>A (1) *</td>
<td>A (3)</td>
<td>A (2)</td>
<td>A=10 (72%) I=1 (7%) C=2 (14%) EC=1 (7%)</td>
</tr>
<tr>
<td></td>
<td>I (1)</td>
<td>C (1)</td>
<td>C (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A (5)</td>
<td>0</td>
<td>A (3)</td>
<td>A (4)</td>
<td>A (6) *</td>
<td>A=18 (75%) I=1 (4%) C=4 (17%) EC=1 (4%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I (1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EC (1)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>EC (1)</td>
<td>A (1)</td>
<td>A (1)</td>
<td>A (1)</td>
<td>A=3 (33%) I=1 (11%) C=2 (22%) EC=3 (33%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I (1)</td>
<td>I (1)</td>
<td>C (1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EC (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>A (2)</td>
<td>---</td>
<td>I (1)</td>
<td>A (1)</td>
<td>0</td>
<td>A=3 (50%) I=2 (33%) C=1 (17%) EC=0 (0%)</td>
</tr>
<tr>
<td></td>
<td>I (1)</td>
<td></td>
<td></td>
<td>C (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>A (5)</td>
<td>---</td>
<td>0</td>
<td>A (1)</td>
<td>0</td>
<td>A=6 (86%) I=1 (14%) C=0 (0%) EC=0 (0%)</td>
</tr>
<tr>
<td></td>
<td>I (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T ot a l s</td>
<td>A=16 (84%)</td>
<td>A=5 (62.5%)</td>
<td>A=6 (50%)</td>
<td>A=11 (61%)</td>
<td>A=49 (68%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I=3 (16%)</td>
<td>I=1 (12.5%)</td>
<td>I=2 (17%)</td>
<td>I=1 (5.5%)</td>
<td>I=8 (11%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C=0 (0%)</td>
<td>C=1 (12.5%)</td>
<td>C=1 (8%)</td>
<td>C=3 (28%)</td>
<td>C=10 (14%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC=0 (0%)</td>
<td>EC=1 (12.5%)</td>
<td>EC=3 (25%)</td>
<td>EC=0 (0%)</td>
<td>EC=5 (7%)</td>
<td></td>
</tr>
</tbody>
</table>

**Participants.**

*Participant 2 provided two appropriate verbalizations for the same item in tasks T1, T2 and T3. Participant 3 provided two appropriate verbalizations for six items in task Ex. In these cases both verbalizations were counted.
As can be seen above, the summarized distribution shows that the conceptual category that was most highly used was anticipation. Participant 1 had 12 semantic, abstract and systematic clauses. Among these 9 (75%) were appropriately categorized as anticipation. The next category was influence with 2 clauses (17%), and last it was commentary with 1 clause (8%). Participant 2 had 14 semantic, abstract and systematic clauses. Among these 10 (72%) were categorized as anticipation. 2 were categorized as commentary (14%), 1 as influence (7%), and 1 as evaluation of clause (7%).

Participant 3 had 24 semantic, abstract and systematic clauses. Among these, 18 of them were categorized as anticipation (75%), 4 as commentary (17%), 1 (4%) as influence and 1 (4%) as evaluation of clause. Participant 4 had 9 semantic, abstract and systematic clauses. Among these, 3 were categorized as anticipation (33%), other 3 as evaluation of clause (33%), 2 as commentary (22%) and 1 as influence (11%).

Participant 5 had 6 semantic, abstract and systematic clauses. Among these, 3 were categorized as anticipation (50%), 2 as commentary (17%), and 1 as influence (33%). Participant 6 had 7 semantic, abstract and systematic clauses. Among these, 6 were categorized as anticipation (86%), and 1 as influence (14%).

Individually and as a group, students appropriately used and recontextualized the conceptual category of anticipation (68%), next it was the category of commentary (14%), then influence (11%) and lastly evaluation of clause (7%). The only three participants who were able to appropriately apply the conceptual category of evaluation of clause were participant 2, 3 and 4. It seems that students needed more in-class or out-of-class support to help them abstract all the conceptual categories in synthesis.
It is interesting that the conceptual category of anticipation was the most highly used. Studies show that there is consistent use of subjunctive with a pattern of futurity in monolingual children (Gili Gaya, 1972; Blake, 1983) and bilingual children and adults as in structures with *para que* (Lynch, 1999) and *cuando* (Martínez Mira, 2009a).

### 7.5 Discussion

This work met its goal in following Gal’perin’s (1989) systemic-theoretical teaching approach in order to observe cognitive development taking place internally while the student was engaged in practical learning activity. Important observations at the pedagogical and research level follow. As we can see in the complex sentences in written tasks table, the level of production changed throughout task. The same happened with accuracy. Needless to say, the main reason for this change are the conditions created by the prompts. Task 3 seemed to be more challenging to students because they had to answer seven questions and also because they had to control tense agreement. However, as we can observe in student verbalizations above, the amount of clauses produced did not equal the quality of their verbalizations.

Verbalizations revealed the students’ cognitive transformation throughout tasks at the conceptual level. This includes theoretical awareness, abstraction, reflection, conceptual synthesis, and self-regulation. They also revealed students’ challenges in identifying complex sentences, the grammatical mood in verb conjugations, tense agreement variability, and low production of subjunctive in adjectival clauses. The study of accurate and inaccurate complex sentences produced by students along with their respective verbalizations is not within the scope of this study. Dynamic assessment (Poehner, 2008) may provide further insight into the origin and emergent development in
heritage language learners whose conceptual/linguistic restructuring follows concept-based teaching. Specifically, we need more insights into students’ potential development with meaningful assistance in moments of crisis (Vygotsky, 1978; Chaiklin, 2003).

In this study, even though the participants were asked to record themselves in order to verbalize their reasoning, students’ verbalizations were provided in two forms: written sentences accompanying the task, or verbalizations taped and later transcribed for analysis. As can be seen below, most students chose to provide written verbalizations.

<table>
<thead>
<tr>
<th></th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Written</td>
<td>Oral</td>
<td>Written</td>
<td>Written</td>
<td>Written</td>
</tr>
<tr>
<td>2</td>
<td>Written</td>
<td>Written</td>
<td>Written</td>
<td>Written</td>
<td>Written</td>
</tr>
<tr>
<td>3</td>
<td>Oral</td>
<td>Oral</td>
<td>Oral</td>
<td>Written</td>
<td>Written</td>
</tr>
<tr>
<td>4</td>
<td>Oral</td>
<td>Oral</td>
<td>Written</td>
<td>Oral</td>
<td>Written</td>
</tr>
<tr>
<td>5</td>
<td>Written</td>
<td>NA</td>
<td>Oral</td>
<td>Written</td>
<td>Written</td>
</tr>
<tr>
<td>6</td>
<td>Written</td>
<td>NA</td>
<td>Oral</td>
<td>Oral</td>
<td>Written</td>
</tr>
</tbody>
</table>

The reason students gave for choosing to write their verbalizations was that the voice recording devices they had to borrow at an office in the university were not always available, leaving them no other choice. According to DiCamilla & Lantolf (1994, p. 351), “like private speech, private writing is the written externalization of portions of one’s inner dialogue”. Both oral and written verbalizations were revealing. Nonetheless, written verbalizations had a shorter quality. This is an important consideration for future studies. A follow up to student recordings would have helped in two ways. As
retrospective data collected for the study in these interviews, and also as a guide to the student to help clarify questions, ask to expand on answers, identify confusions and provide scaffolding within the students’ zone of proximal development.

7.6 Conclusion

The high number of semantically based verbalizations alludes to the quality of a concept-based meaning orientation. The top down use of the SCOBA (Negueruela, 2003) used in this study seemed to be somewhat challenging for participant 6, a student with high level of empirical knowledge of modality. It is interesting to note that the only Spanish class taken prior to this course for Heritage speakers, participant 6 had only taken one conversation class. In her reflection of progress essay, participant 6 acknowledged her difficulty in using her SCOBA. She wrote “Sinceramente, los subjuntivos fueron más difíciles para yo aprender y todavía no los entiendo tan bien como el resto del material enseñado en clase” (Honestly, the subjunctives were more difficult for me to learn and I still do not understand them as well as the rest of the material taught in class). It is possible that she was not accustomed to using a psychological tool to mediate her understanding in Spanish and orient activity.

The rest of the participants of this study were able to transform their theoretical orientation with the help of their SCOBA, as observed in their verbalizations. Throughout a short period of time, they were able to abstract specific modal conceptual categories, such as anticipation, and generalize it as observed by its use in new contexts. Nevertheless, not all the conceptual categories were successfully synthesized. Considering the interface between syntax, morphology, semantics, and pragmatics mentioned in chapter 2, plus the interrelated concepts available in the SCOBA of
modality, it is sound to believe that the participants of this study may have benefitted from a longer conceptual learning and developmental teaching sequence within the unit of modality.
CHAPTER 8

CONCLUSIONS

8.1 Introduction

The present study researched the processes of development of Spanish modality during five different written communicative events in a formal setting involving six Heritage language learners who produced verbalizations as they completed the events (Vygotsky, 1998). Instruction was organized according to Gal’perin’s goal-oriented Systemic-Theoretical Instruction (1989) and its latest published modified version in a foreign language course using Concept-based instruction (Negueruela, 2003).

This chapter is structured as follows. Section 8.2 discusses the context and premise of the present study. Section 8.3 describes how this study has tried to fill a gap in past research and presents how the research questions were posed and in Section 8.4 how subsequently they were answered. Section 8.5 explains the contributions. Section 8.6 mentions the limitations of the study and provides suggestions for future research. Section 8.7 concludes the discussion with implications for instruction.

8.2 The study

This project was carried out in an intact heterogeneous classroom. Each participant drew on different background knowledge in formal and informal settings in addition to having different interests, goals and motives to use and formally study the language. One of the participants was first generation and arrived to the United States at the age of 9. Five of them were born in the United States and are considered second
generation. The Heritage language classroom in which this study took place was located at a large public suburban university in the Northeast part of the United States. This was the only course designed for Heritage language learners at this university and it is offered once a year. Students are generally referred to this course by their advisors, or when out of personal interest, their attendance is approved by the instructor. Access to academic literacy is critical in order to expand Heritage speakers’ use of registers in a variety of contexts outside of the family domain and expand communicative abilities that go beyond the interpersonal mode (National Standards in Foreign Language Education Project, 1999; Valdés, 2001), and include new contexts and purposes of communication. A responsive curriculum in a Heritage language class offers an important bridge between the linguistic practices carried out at home and theoretical-conceptual thinking aimed at school.

This project focused on Spanish modality. According to socio- and linguistic research (Lynch, 1999; Martínez Mira, 2009a, 2009b; Mikulski, 2010b; Montrul, 2007; Ocampo, 1990; Silva-Corvalán, 1990, 1994a, 1994b, 2003; Studerus, 1995), grammatical simplification in bilingual speakers is due to incomplete acquisition of Spanish, or to attrition and loss of an underused linguistic system. The result of the process of simplification is reduction or loss of forms or meanings. Monolingual and bilingual children’s acquisition and use of the subjunctive mood seem to be linked to their exposure to its semantic features and need to produce it in context. Studies in bilingual adults also show mood choice variability leading to non-contrastive uses of the subjunctive and indicative mood. Reduced exposure to Spanish modality minimizes context-rich environments where semantic features require such contrast.
8.3 Filling a gap

Studies focusing on modality in written data in heritage language learners are scarce. The data of existing studies analyzing linguistic production rely on sentence completion, grammatical judgment, and/or interpretation tasks, or all of the above (Lynch, 1999, Martínez Mira, 2009b; Potowski, Jegerki & Morgan Short, 2009). As Potowski, Jegerki & Morgan Short (2009) mentioned in their study, “judging the grammaticality of isolated sentences may not tap into whether students are aware of the different meanings that mood options convey”. Furthermore, past studies have not tried or have “not been able to address the cognitive processes that underlie linguistic development” (Potowski, Jegerski, and Morgan Short, 2009, p. 565).

In her 1995 seminal article, Valdés drew attention to the need for a pedagogy that is informed by a language learning theory in applied linguistics (Valdés, 1995). More recently, at the center of future research recommendations, Lynch (2003) suggested exploring existing SLA pedagogical paradigms in the HL classroom. Without a doubt, furthering research on pedagogical approaches and heritage language development has become crucial in the heritage language field (Mikulski, 2010b).

The present study tried to fill past gaps in research by: 1- using a pedagogy informed by a language learning theory in applied linguistics; 2- analyzing data that ties in theory and practice; 3- exploring an existing pedagogical paradigm based on Vygotskyan principles of situated learning that emphasizes agency and tool-mediated theoretical thinking, and applying it in a Heritage language classroom; 4-furthering research on pedagogical approaches and heritage language development.
Vygotsky’s legacy has provided many contributions across disciplines in studies where the main goal is understanding development and the role language plays in this development. In essence it is a holistic theory that could explain higher mental processes through the development of speech, thinking and consciousness (Haenen, 1996). The pedagogical and research approach followed in this study is based on Gal’perin’s (1989) Systemic-theoretical instruction approach. Gal’perin (1969) further extended Vygotsky’s cultural-historical theory and concept formation research in the area of classroom instruction. Exclusively at the action level, Gal’perin developed a research agenda that would provide a concrete basis for the study of the internalization process of mental actions, As Fariñas León (2001, p. 261) points out, the advantages of Gal’perin’s approach not only reside on its capacity to orient intellectual actions and delineate the teaching process (Haenen, 2001) but it is also a theory that helps explain the conditions that affect or enhance the learning process in heterogeneous classrooms. In the instructional setting, teaching approaches that promote the use of quality psychological tools to orient activity and promote conceptual development such as Gal’perin’s outline (which includes the stepwise procedure) may significantly impact the level of awareness and control of scientific concepts, its meaning and interrelated connections.

Concept-based teaching, a recent modification of Gal’perin’s Systemic-theoretical instruction (Negueruela, 2003) follows three tenets: 1- identifying a unit of instruction, 2- materializing that unit of instruction providing a complete orientations of the content of study, and 3- using verbalizations for internalization purposes. At the core of these approaches is to prioritize and promotes language awareness and control of scientific concepts in the language classroom. The theoretical basis relies on Vygotsky’s main
principles to help achieve and explain the development of higher thinking levels in students: mediation, inner and private speech, concept formation, and development. Following Vygotskian research on concept formation, one of the goals of this study is to analyze the process and nature of development of Spanish modality in Heritage language learners while the concept is used to orient action in practical activities.

Most Heritage language learners, due to lack of access to their L1 in academic settings have different levels of empirical knowledge of the language. Concept formation based on Vygotskian’s principles (1978) outline a developmental process that goes from general to abstract, and from abstract to concrete where it meets empirical knowledge. In this process with the aid of instructional cognitive tools that help him/her transform material to cognitive activity, the student reflects, solves contradictions and generalizes. Therefore, Heritage language learners would benefit from a pedagogical refocus in order to promote awareness and control of theoretically based grammatical concepts to be used as mediational cognitive tools. This instructional focus is in opposition to descriptive methods that do not require meaning-based theoretical abstractions in the true sense, but that are based on memorization of rules to guide students’ performance. This dissertation held the premise that concepts, their meaning and function, could not be appropriated through memorization or associative connections (Vygotsky, 1987) but by more complex, higher level thinking. Furthermore, it is assumed here that a linguistic system with its concepts, in the primary and/or secondary language (English or Spanish), is already in place. Therefore, through a Heritage language class the student will further generalize scientific concepts, which were already generalized to a certain extent, in a first or heritage language.
In this study, I applied Concept-based teaching in a Heritage language classroom in order to observe how this pedagogical approach would promote awareness, control and internalization of the concept of verbal mood in Heritage Language students. In addition, I set out to investigate how the concept of verbal mood would emerge and proceed as revealed in their verbalizations. Recall the questions posed by this study on pages 11 and 89-91.

8.4 Findings

Gal’perin’s Systemic-theoretical instruction promoted awareness in the following ways. First, from a pedagogical point of view, at the orienting stage students were able to orient their learning by relying in essential features represented by conceptual categories in their cognitive tool. These same conceptual categories were used for teaching, which in turn provided the same teaching-learning sequential and consequential goal of promoting theoretical understanding, awareness and control of modality.

By using their orienting tool in a top down fashion, students were able to strengthen their theoretical understanding in practical activity while still accessing empirical knowledge, and eventually generalizing its use in new contexts across nominal, adjectival and adverbial clauses. By focusing students’ attention on the conceptual categories of anticipation, influence, commentary and evaluation of clause, students were able to further their understanding of critical interrelated concepts in Spanish modality. As we can see in the changes of their verbalizations, conceptual awareness developed from perceptual to semantic. At the end of the course, 70% of their verbalizations were based on meaning and only 26% were perceptual. This is important since the quality of
their verbalizations reflects the emergence and progress of their conceptual understanding from empirical to theoretical.

As I hypothesized in Chapter 5, the SCOBA used by students promoted students gaining awareness and control of the concept of modality in specific ways in the participants of this study. When we look at student written definitions in Chapter 5, we can observe learner’s transformation of their definitions at three different times. By using the interrelated essential features in theoretical concepts, I was able to observe changes in their definition related to generality, abstractness, systematicity, explicability, functionality and significance. The second and last time after CBT, five of the students’ definitions were semantic and functional which means they had potential to orient execution. The definition of participant 6 was not sufficiently complete or coherent. Hence, its potential to orient execution was lower because it was not fully semantically based. A possible explanation could be that she needed a different type of orientation.

Students’ theoretically based semantic understanding of the concept of modality also had a positive impact on students’ discourse performance data. The summarized distribution of the appropriate use of all the participants’ tokens, found in Chapter 6, shows consistent development that clearly progresses throughout tasks. The performed discourse data analysis allowed me to observe an almost even production of subjunctive and indicative. 46% of the complex sentences produced were in indicative and 54% were in subjunctive. I noticed high production in nominal clauses with 57% of subjunctive and 43% of indicative. Overall, I observed low production in adjectival clauses and within the adjectival clauses produced, I noticed a minor use of subjunctive morphology. 77% of the
adjectival complex sentences produced were in indicative, 23% were in subjunctive. Among the adverbial clauses, 21% were in indicative and 79% in subjunctive.

These verbalization data gave me insight into the students’ emergence of awareness of the conceptual categories of modality. I observed how these conceptual categories emerged and how students applied such categories in context with the aid of their psychological tool of modality (SCOBA). I was also able to observe traces of control (or lack of) of specific categories and in some instances its subsequent internalization. The conceptual category of anticipation was appropriately verbalized and contextualized 68% of the time. The conceptual category of commentary was next with 14%, next influence with 11% and last evaluation of clause with 7%. The semantic, abstract and systematic consecutive use and recontextualization of the conceptual category of anticipation in at least three of the five tasks allows me to say that this was the conceptual category that was clearly strengthened and in which participants 1, 2 and 3 showed a developed awareness and control throughout the period of the study.

The presence of one conceptual category in semantic, abstract and systematic verbalizations in at least two activities allow me to state that the emergence of its meaning began its course even though I was not able to observe strengthening and expansion of its meanings in new contexts and thus internalization. This was the case with the conceptual category of commentary, influence and evaluation of clause. Participant 2 and 4 coherently applied the conceptual category of commentary more than once. Participant 1 and 5 coherently applied the conceptual category of influence more than once. Finally, Participant 4 coherently applied the conceptual category of evaluation of clause twice. The limited use of the latter categories shows emergence of its
conceptual meaning(s) in appropriate contexts, further appropriate recontextualization may provide full awareness and control.

The absence of semantic, abstract and systematic verbalizations referring to a specific conceptual category leads me to conclude that possibly students did not fully understand the meaning of that conceptual category within the concept of modality. This was the case with participants 1, 5 and 6 who were not able to coherently apply this category in context. This was the case with the conceptual category of evaluation of clause. The only three participants who were able to coherently apply the conceptual category of evaluation of clause were participants 2, 3 and 4.

8.5 Contributions

To my knowledge, this is the first project studying conceptual development in student verbalizations through the use of a psychological learning tool that included interrelated concepts of modality, and Systematic-theoretical instruction in a Heritage language classroom. In this study, the verbalizations have provided an insight into the meanings students’ meant to convey through the conceptual categories of modality found in their SCOBA. In addition, the verbalizations allowed me to follow development at the semantic and functional level.

In his study, Negueruela (2003) found that STI indeed promotes development and that development “proceeds as a conceptual process” (p. 462). In this work, I have further observed the path of development at six different times along the students learning process, and have identified the specific conceptual categories where meanings found forms in a dialectical unity, or where development seems to have taken place. Moreover,
I have differentiated the conceptual categories that emerged but which were not strengthened and the ones that did not seem to emerge in some participants.

### 8.6 Limitations of this study and future research

Verbalization data has provided insights into the emergence and progress of conceptual categories. However, the majority of student verbalizations were shorter in nature. Future research should consider immediate or retrospective feedback to follow up on student verbalizations in order to ask students to expand on their explanations and foster the use of the private speech that “emerges in the face of difficult tasks” (Appel & Lantolf, 1994, p. 439).

Verbalizations in this study were defined not only as oral but also written. In this sense, this needs to be studied more closely. As students who opted to write their verbalizations, they had more time than those who were orally recording themselves to monitor their thinking through the act of writing. The effects of oral versus written verbalizations are worth exploring further. Also, Heritage learners who were using the SCOBA could actually be learning metalinguistic terms, an area that also warrants further study.

In this same line of thought, in future research, dynamic assessment may provide further insight into students’ choices. Specifically, it would allow the researcher to observe students’ potential development in real time (Vygotsky, 1978; Chaiklin, 2003). Moreover, dynamic assessment (Poehner, 2008) may help identify the genetic source of accurate and inaccurate complex sentences produced by students along with their respective verbalizations. In the same way, it may allow future studies to investigate the stages of internalization (such as Gal’perin’s stages of abbreviation, generalization and
internalization) at the action level emerging in development as evidenced individually in student verbalizations.

A note on the pedagogical limitations of this study is in order. Past and current studies on Vygotskyan approaches to language learning and their focus on theoretical development of conceptual grammar call out for the pressing need of language textbooks based on SIT and CBT. This could potentially provide pedagogical consistency if it provided quality orienting tools for understanding and quality communicative tasks to promote emergence and development of conceptual grammar (Negueruela, 2003).

It is important to mention that teaching in a language program an only course designed for Heritage language learners entails constrains by nature. Among the implications are time limitations and lack of pedagogical sequences between courses. This context creates an enormous amount of pressure to instructors committed to meeting the wide range of pedagogical goals characterized in these classes due to the heterogeneity of the student audience. Drawing from the results of this study, development can be initiated in a short period of time but more exposure is needed in order to facilitate fostering interrelated conceptual understandings through the use of psychological tools in all relevant grammatical-pragmatic contexts mirroring situated practical activity.

Furthering studies focusing on developmental processes at the theoretic-conceptual level would inform the Heritage and second language field, and would allow for a better understanding on how to promote student development based on scientific concepts through organized instruction. In this study, we observed student awareness, control and development of specific conceptual categories at the micro genetic level.
Further research should study conceptual development based on Vygotskyan principles in heritage language learners longitudinally.

8.7 Conclusions

This study has investigated how Systemic-Theoretical Instruction promoted student conceptual development of Spanish modality in definition, discourse and verbalization data in six Heritage language learners. Definition data provided insights into students’ evolution from perceptual to semantic understanding. Discourse data displayed students’ written progress at the control level in written communicative activities promoting new contexts and purposes of communication. Verbalization data gave insights into students’ awareness of the meanings conveyed in the interrelated conceptual categories of modality as reflected in written discourse. As evidenced in semantic, abstract and systematic verbalizations, Systemic-theoretical instruction promoted conceptual development of the category of anticipation, and fostered awareness of the conceptual categories of influence, commentary and evaluation of clause.

This study is a new contribution in the Heritage language field. Through a Vygotskyan inspired teaching and research approach, it has provided evidence in empirical research that organized systemic instruction and concept-based teaching has lead development in six heritage language learners.
APPENDIX A

SYLLABUS

SPAN 354                  FALL 2006

SPANISH FOR NATIVE SPEAKERS

Elena García Frazier
Teaching Associate
Office: Hampshire House 209 or 4th floor in Herter
email: elenag@spanport.umass.edu
Office hours: Tuesdays from 2:30 to 3:30 p.m.
and by appointment

Dept. of Spanish & Portuguese
University of Massachusetts
Meeting time: Tu, Th from 1:00 – 2:15 p.m.
Place: Herter Hall room 225

Course Description:

This course is designed for the instruction of Hispanic bilingual students who speak Spanish at home but use English as a dominant and school language. The three primary objectives of this course are: 1- to build upon and further develop communicative abilities in Spanish, 2- to develop a sophisticated understanding of important issues pertaining Hispanic cultures in the United States, and 3- to study the Spanish language from orthography to dialectical variation. Span 354 is a communicative oriented program that aims at developing spelling, grammar, vocabulary and discourse skills in contextualized communication. The main focus is on developing communicative abilities through a thematic and interactive task-based approach. This course is not based on lectures, but rather on active learner participation in different tasks that require students to use Spanish for different purposes. The class will be conducted in Spanish in order to provide you with maximum exposure to the language.

Course Learning Objectives:

1. To speak and understand Spanish with sufficient fluency and accuracy so as to allow you to participate effectively in formal and informal conversations concerning a variety of topics.
2. To read in Spanish accurately enough to understand an array of genres: from newspaper articles to literature pieces.
3. To write appropriately and effectively descriptions, narrations and argumentative essays in Spanish.
4. To develop a sophisticated understanding of the diversity and richness of the culture and people of the Spanish-speaking world: from basic geographical knowledge to issues connected to cultural diversity and sensitivity.
Required Course Materials

- *Nuevos Mundos: Lectura, cultura y comunicación. Second Edition*


- A good dictionary. I recommend the *Harper Collins Spanish College Dictionary*.

Additional readings to supplement our discussions and learning will be made available to students.

GRADING SCALE

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100-94</td>
</tr>
<tr>
<td>A-</td>
<td>93-90</td>
</tr>
<tr>
<td>B</td>
<td>86-84</td>
</tr>
<tr>
<td>B-</td>
<td>83-80</td>
</tr>
<tr>
<td>C</td>
<td>76-74</td>
</tr>
<tr>
<td>C-</td>
<td>73-70</td>
</tr>
<tr>
<td>D</td>
<td>66-65</td>
</tr>
<tr>
<td>D+</td>
<td>69-67</td>
</tr>
<tr>
<td>F</td>
<td>64-0</td>
</tr>
<tr>
<td>B+</td>
<td>89-87</td>
</tr>
<tr>
<td>C+</td>
<td>79-77</td>
</tr>
</tbody>
</table>

Course Requirements:

1) Regular attendance and participation (10 %)

Careful reading of all assigned texts and active participation in all class discussions is expected. Active participation in collaborative group projects, both in and out of class, is also required.

2) Participation in on-line forum (10 %)

Students will contribute weekly in an on-line discussion forum run by WebCT (https://webct.oit.umass.edu/webct/public/home.pl). This on-line forum will act as a means of identifying and discussing issues in the course readings. There will be one moderator to lead a virtual discussion per class session. The moderator will pinpoint important matters and will post an initial comment, question, etc. on the given topic by Thursday night. The rest of the class will need to post two comments, one by Saturday night, and the other one by Monday night. We will bring the on-line virtual discussion to class, whenever appropriate.

3) Portfolio (5 %)

Students will keep his/her work in a three-ring binder (portfolio/carpeta) divided in working sections: tareas, ensayos, foro en línea, exámenes, reflexiones. This
portfolio will allow the instructor to assess written discourse progress. The primary aim of this portfolio is to show objective linguistic improvement throughout the semester. The portfolio will be turned in at the end of the course.

4) Reflection paper. (10 %)

Students will write two papers, one-page minimum three-page maximum, in which they will reflect on the progress of the work they have completed up until that moment. The first reflection will be done in the middle of the semester, the second one at the end. Students are to use their work in their portfolios. The primary goal of this reflection is having the opportunity to evaluate one’s own work and work-in-progress to be able to identify future learning goals. Moreover, this is an opportunity to assess past strategies used to achieve learning success.

5) 3 essays (10 %)

The essays will be written throughout the semester with different writing goals: description, narrative and argument. Each essay will consist of one draft and the final version. Essays should follow the format below.

José García
Español 354
Título

Borrador # 1 -o- Versión final
# de palabras
2 de octubre del 2006

6) Tape recording (10%)

7) Homework (5%)

Not all homework will be collected. Students must complete all assigned homework. The instructor will inform students if homework is being collected on the day when homework is to be due. Homework includes workbook exercises, handout sheets and small quizzes.

8) 3 exams (10 %)

Assessment is based on both your knowledge of Spanish language and Hispanic cultures, and on your ability to use the language in written and oral tasks.

9) Final research project (30%)

9.1 Research question and project outline (5%)

Students must turn in a research question guiding their investigation and thus the learning objective for their final project. The research question must be accompanied by the project outline. It is very likely, and expected, that this project outline will not identically reflect the organization of information of the final project. This outline will rather serve
as an initial visual organizer to help students identify essential information to include in their final project, as well as a research guide.

9.2 Literature review and bibliography (5%)

9.3 First draft (10%)

9.4 Final draft (10%)

Attendance

Students will be allowed two absences (one entire week of instruction). After the second absence, each absence will result in a deduction of 1 point from the final grade. To make up any work that counts towards the final grade (including the two allowed absences), requires written documentation. Being late to class repeatedly (three times) will also count as an absence. Extenuating circumstances will be left to the decision of the instructor.

Academic Integrity. Plagiarism, cheating, submitting work of another person or work previously used without informing the instructor, tampering with the academic work of others and other forms of academic dishonesty may lead to lowered course grades, failure of the course or more severe measures, depending on the gravity of the individual case.

Disability Services. During the first week of the course, students with disabilities are responsible for bringing official documentation from UMass Disability Services explaining the nature of the disability and specific arrangements the student will need to complete his/her work. This information will remain strictly confidential.
## Course schedule

IMPORTANT: This schedule is tentative therefore subject to change.

<table>
<thead>
<tr>
<th>Semana</th>
<th>Fecha</th>
<th>En clase</th>
<th>Tareas</th>
<th>Notas</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>7-sep</td>
<td>Inform consent</td>
<td>Imprimir el programa del curso</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cuestionario</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnóstico</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>12-sep</td>
<td>Intro al curso</td>
<td>El laberinto p. 17</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lección 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-sep</td>
<td>Lección 1</td>
<td>Mareo escolar p. 21 Inicia el foro en línea</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>19-sep</td>
<td>Lección 1</td>
<td>Las raíces mexicanas p. 41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21-sep</td>
<td>Lección 1</td>
<td>Mi acento p. 51</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>26-sep</td>
<td>Lección 1</td>
<td>Los puertorriqueños p. 75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28-sep</td>
<td>Lección 1</td>
<td>Ni te lo imaginas p. 89</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>3-oct</td>
<td>Repaso</td>
<td>Borrador de ensayo 1 para hoy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-oct</td>
<td>Examen 1</td>
<td></td>
<td>Este fin de semana no hay lecturas para el foro</td>
</tr>
<tr>
<td>VI</td>
<td>10-oct</td>
<td>Lección 2</td>
<td>Ensayo 1 final para hoy Articulo sobre la desaparición del inglés</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12-oct</td>
<td>Lección 2</td>
<td>Articulo sobre el inglés como lengua oficial Continúa el foro en línea</td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>17-oct</td>
<td>Lección 2</td>
<td>Los cubanos y cubanoamericanos p.105</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19-oct</td>
<td>Lección 2</td>
<td>Mi raza p. 110</td>
<td></td>
</tr>
<tr>
<td>VIII</td>
<td>24-oct</td>
<td>Lección 2</td>
<td>Borrador de ensayo 2 para hoy España ayer y hoy p. 137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26-oct</td>
<td>Lección 2 Proyecto final – planes – grupos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IX</td>
<td>31-oct</td>
<td>Repaso</td>
<td>Ensayo 2 final para hoy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-nov</td>
<td>Examen 2</td>
<td></td>
<td>Este fin de</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>7-nov</td>
<td>Lección 3</td>
<td>Reflección 1 para hoy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9-nov</td>
<td>Lección 3</td>
<td>Lectura para el proyecto - Entregar la propuesta del proyecto hoy (research question and project outline)</td>
<td></td>
</tr>
<tr>
<td>XI</td>
<td>14-nov</td>
<td>Lección 3</td>
<td>Lectura para el proyecto</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16-nov</td>
<td>Lección 3</td>
<td>Lectura para el proyecto</td>
<td></td>
</tr>
<tr>
<td>XII</td>
<td>21-nov</td>
<td>Lección 3</td>
<td>- Borrador de ensayo 3 para hoy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23-nov</td>
<td>Día de gracias – no hay clase</td>
<td>Lectura para el proyecto</td>
<td></td>
</tr>
<tr>
<td>XIII</td>
<td>28-nov</td>
<td>Lección 3</td>
<td>Lectura para el proyecto</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30-nov</td>
<td>Repaso</td>
<td>Ensayo 3 final para hoy</td>
<td></td>
</tr>
<tr>
<td>XIV</td>
<td>5-dic</td>
<td>Examen 3</td>
<td>Entregar el borrador del proyecto final hoy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7-dic</td>
<td>Diagnóstico Presentaciones</td>
<td>Reflección 2 para hoy</td>
<td></td>
</tr>
<tr>
<td>XV</td>
<td>12-dic</td>
<td>Presentaciones Evaluación del curso</td>
<td>Entregar versión final del proyecto junto con la carpeta y los cassettes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>semana no hay lecturas para el foro</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Continúa el foro en línea</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Último fin de semana del foro en línea</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>La última semana y media de clases no hay foro en línea</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B
INFORMED CONSENT FORM

Study title: Concept-based teaching and heritage language development

Person in charge:
Elena García Frazier
Teaching Associate
Graduate student
Spanish and Portuguese Department
Hampshire House 209
University of Massachusetts, Amherst
elenag@spanport.umass.edu

Eduardo Negueruela, PhD
Umass Adjunct Faculty
enegueruela@mail.as.miami.edu

Introduction to the study: The purpose of this study is to investigate how a concept-based approach to teaching heritage language may enhance heritage language learning. This approach is based on the work of P. Gal’perin and E. Negueruela. This instructional method is based on specific learning charts and on speaking to oneself during the learning process. If you decide to participate in this project you will become familiar with the learning techniques involved.

What will happen during the study: If you agree to take part in this research, you will give me permission to use all material you produce to meet the class requirements for research purposes. The class requirements include: an on-line forum, portfolio keeping, two reflection papers, three essays, tape-recordings, homework, three exams and a final project. You may also be asked to take two oral diagnostics that take about twenty minutes to complete.

Who to go to with questions: If you have any questions or concerns about being in this study you should contact Elena García Frazier, or the dissertation director, Professor Eduardo Negueruela.
If you would like to speak with someone not directly involved in this study you may contact the Human Research Protection Office via email at humansubjects@ora.umass.edu or telephone at (413-545-3428)

How participants’ privacy is protected: I will make every effort to protect your privacy. I will not use your name in any of the information I get from this study or in any of my research reports. Any information I get in the study that lets me know who you are will be recorded with a code number. During the study the key that tells me which code number goes with your information will be kept in a locked drawer. When the study is finished I will destroy the key that can link information to you personally.
**Risks and discomforts:** I do not know of any personal risk or discomfort from being in this study. The study will give you the opportunity to learn with an innovative learning approach to Heritage Languages, gained enhanced understanding of language learning, and contribute to a worthwhile research endeavor focused on improving the quality of Heritage Language education.

**Your rights:** Your participation is voluntary. You will not be treated any differently if you decide not to be in the study. If you do decide to be in the study, you have the right to tell me you do not want to continue with the study and stop being in the study at any time without penalty. This study is not connected to your grade in this language course in any way.

**Review Board approval:** The Institutional Review Board (IRB) at University of Massachusetts Amherst has approved this study. If you have any concerns about your rights as a participant in this study you may contact the Human Research Protection Office via email (humansubjects@ora.umass.edu); telephone (413-545-3428); or mail (Office of Research Affairs, 108 Research Administration Building, University of Massachusetts, 70 Butterfield Terrace, Amherst, MA 01003-9242).

---

**PLEASE READ THE FOLLOWING STATEMENT AND SIGN BELOW IF YOU AGREE**

I have had the chance to ask any question I have about this study and my questions have been answered. I have read the information in this consent form and I agree to be in the study. There are two copies of this form. I will keep one copy and return the other to Elena Garcia Frazier.

__________________________________________________________
Signature

__________________________________________________________
Date
# APPENDIX C

## TABLES OF MOOD MORPHOLOGY IN WRITTEN TASKS

Participant #1: Mood morphology in written tasks.

<table>
<thead>
<tr>
<th># 1</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>a, b, c</td>
<td>a, c, e, f, g, h, n*, o*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>d</td>
<td>j</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>b, d*, i, j*, k, l, m</td>
<td>b, c, f, g, i, j, k, l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>a, e, h, m</td>
<td></td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>h</td>
<td>e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>k</td>
<td>e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td>f</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coherent use of tokens</td>
<td>3</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Incoherent use of tokens</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total use of tokens</td>
<td>3</td>
<td>16</td>
<td>13</td>
</tr>
</tbody>
</table>
Participant # 2: Mood morphology in written tasks.

<table>
<thead>
<tr>
<th># 2</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td></td>
<td>Present</td>
<td>Indicative</td>
<td>Nominal</td>
<td>a, b*, c*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>d*</td>
<td>c</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>a*, b*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Present</td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>a, b, f*, g*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>c*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Past</td>
<td>Indicative</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>e</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>Past</td>
<td>Subjunctive</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coherent use of tokens | 1 | 4 | 3 | 15 | 5 | 10 |
Incoherent use of tokens | 3 | 3 | 2 | 5 | 2 | 3 |
Total use of tokens | 4 | 7 | 5 | 20 | 7 | 13 |
Participant # 3: Mood morphology in written tasks.

<table>
<thead>
<tr>
<th># 3</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>b, c, f, i, j, k, l</td>
<td>a, c*, g, i</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td>b *</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td>b*, g*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>a</td>
<td>a*, c, h, i, l</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td>e</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td>d, e, f</td>
<td>a, d, e, g</td>
<td>d, j, n</td>
</tr>
<tr>
<td></td>
<td>Infinitive</td>
<td>Nominal</td>
<td>m*</td>
<td></td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>j</td>
<td>b, k</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td>k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>d*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td>d</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td>f</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coherent use of tokens: 2 9 12 14 9 5
Incoherent use of tokens: 3 1 2 1 2
Total use of tokens: 2 12 12 16 10 7
Participant # 4: Mood morphology in written tasks.

<table>
<thead>
<tr>
<th>#</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td></td>
<td>Indicative</td>
<td>Nominal</td>
<td>c, e, e, f</td>
<td>c, d, e b</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>a, f</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>a, b, c, b</td>
<td>a, c, h, j, k</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>a, d, e</td>
<td>g</td>
</tr>
</tbody>
</table>

Appropriate use of tokens: 1 5 6 10 6 4
Incoherent use of tokens: 1
Total use of tokens: 1 5 6 11 6 4
Participant # 5: Mood morphology in written tasks.

<table>
<thead>
<tr>
<th>#5</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>a, c</td>
<td>c, f*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>b</td>
<td>a, i*, j</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>e, h</td>
<td>b</td>
</tr>
<tr>
<td>SUBJUNCTIVE</td>
<td>Nominal</td>
<td>b, d, e, h, k, l</td>
<td>b</td>
<td>m</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td>f</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td>g</td>
<td>g*</td>
<td>k</td>
</tr>
<tr>
<td>INFINITIVE</td>
<td>Nominal</td>
<td>d*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicative

<table>
<thead>
<tr>
<th>PAST</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td></td>
<td>Indicative</td>
<td>Nominal</td>
<td>c, f</td>
<td>e</td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate use of tokens | 3 | 10 | 6 | 10 | 10 | 4 |
Inappropriate use of tokens | 2 | 4 | 4 | 1 | 2 |
Total use of tokens | 3 | 12 | 10 | 12 | 11 | 6 |
Participant # 6: Mood morphology in written tasks.

<table>
<thead>
<tr>
<th># 6</th>
<th>Morphology</th>
<th>Type of clause</th>
<th>Before CBT</th>
<th>After CBT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>T1</td>
</tr>
<tr>
<td>PRESENT</td>
<td>Indicative</td>
<td>Nominal</td>
<td>a*, c</td>
<td>a, c, g, h, k, l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>e*, f*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjunctive</td>
<td>Nominal</td>
<td>o</td>
<td>b, e, f, g, h, i, k</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td>j</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td>b*, d*</td>
<td>b*, d*, e, f, i, m</td>
</tr>
<tr>
<td></td>
<td>Infinitive</td>
<td>Nominal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAST</td>
<td>Indicative</td>
<td>Nominal</td>
<td>d, g*</td>
<td>g, h, i</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td>j</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjunctive</td>
<td>Nominal</td>
<td>c, y</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjectival</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coherent use of tokens</td>
<td>1</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Incoherent use of tokens</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total use of tokens</td>
<td>6</td>
<td>16</td>
<td>11</td>
</tr>
</tbody>
</table>
APPENDIX D

FEATURES OF THEORETICAL CONCEPTS IN VERBALIZATIONS

<table>
<thead>
<tr>
<th>Features of theoretical concepts in verbalizations</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality Quality of reasoning</td>
<td>Semantic (It is based on meaning)</td>
</tr>
<tr>
<td></td>
<td>Functional (How it is used)</td>
</tr>
<tr>
<td></td>
<td>Perceptual (It describes specific properties)</td>
</tr>
<tr>
<td>2- Abstractness Completeness of explanation.</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>3- Systematicity Reasoning and justification coherently related to solution of task</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>4- Functionality Reasoning and justification orient activity and allow recontextualization</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>5- Significance Based on intentionality</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
### APPENDIX E

**VERBALIZATION TABLES**

Participant # 1: Student verbalizations in Task 1.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Participant # 1: Student verbalizations in Task 2.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>
### Participant # 1: Student verbalizations in Task 3.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Some</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

### Participant # 1: Student verbalizations in Task 4.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S/P</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
**Participant # 1: Student verbalizations in Task Ex.**

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

**Participant # 2: Student verbalizations in Task 1.**

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>P</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Participant # 2: Student verbalizations in Task 2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Verbalizations</strong></td>
<td>V1</td>
<td>V2</td>
<td>V3</td>
<td></td>
</tr>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>F</td>
<td>S</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant # 2: Student verbalizations in Task 3.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verbalizations</strong></td>
</tr>
<tr>
<td>1- Generality</td>
</tr>
<tr>
<td>a. semantic</td>
</tr>
<tr>
<td>b. functional</td>
</tr>
<tr>
<td>c. perceptual</td>
</tr>
<tr>
<td>2- Abstractness</td>
</tr>
<tr>
<td>3- Systematicity</td>
</tr>
<tr>
<td>4- Functionality</td>
</tr>
<tr>
<td>5- Significance</td>
</tr>
</tbody>
</table>
Participant # 2: Student verbalizations in Task 4.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Participant # 2: Student verbalizations in Task Ex.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Some</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Some</td>
<td>N</td>
<td>Some</td>
<td>Some</td>
<td>Y</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
Participant # 3: Student verbalizations in Task 1.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>N</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Participant # 3: Student verbalizations in Task 1 continued.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S/F</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Some</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
Participant # 3: Student verbalizations in Task 2.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
<td></td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>P</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>Some</td>
<td>Some</td>
<td>N</td>
<td>N</td>
<td>Some</td>
<td>N</td>
</tr>
<tr>
<td>3-Systematicity</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Participant # 3: Student verbalizations in Task 2 continued.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
<th>V11</th>
<th>V12</th>
<th>V13</th>
<th>V14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
<td>S</td>
<td>P</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>Some</td>
<td>N</td>
<td>N</td>
<td>Some</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3-Systematicity</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
Participant # 3: Student verbalizations in Task 3.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Some</td>
<td>Some</td>
<td>Y</td>
<td>Some</td>
<td>Y</td>
<td>Some</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

Participant # 3: Student verbalizations in Task 3 Continued.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
<th>V11</th>
<th>V12</th>
<th>V13</th>
<th>V14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
### Participant # 3: Student verbalizations in Task 4.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Some</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

### Participant # 3: Student verbalizations in Task Ex.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
Participant # 4: Student verbalizations in Task 1.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Participant # 4: Student verbalizations in Task 2.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
### Participant # 4: Student verbalizations in Task 3.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
<th>V9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

### Participant # 4: Student verbalizations in Task 4.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
Participant # 4: Student verbalizations in Task Ex.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Participant # 5: Student verbalizations in Task 1.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Some</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
Participant # 5: Student verbalization in Task 2 not provided by student.

Participant # 5: Student verbalizations in Task 3.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Some</td>
<td>Some</td>
<td>Y</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Participant # 5: Student verbalizations in Task 3 continued.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V7</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
<th>V11</th>
<th>V12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>Y</td>
<td>Some</td>
<td>Y</td>
<td>Y</td>
<td>Some</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
Participant # 5: Student verbalizations in Task 4.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>c. perceptual</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Participant # 5: Student verbalizations in Task Ex.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
</tr>
<tr>
<td>b. functional</td>
<td>N</td>
</tr>
<tr>
<td>c. perceptual</td>
<td>N</td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
</tr>
</tbody>
</table>
Participant # 6: Student verbalizations in Task 1.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- Systematicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Participant # 6: Student verbalizations in Task 1 continued.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V8</th>
<th>V9</th>
<th>V10</th>
<th>V11</th>
<th>V12</th>
<th>V13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td>P</td>
<td>P</td>
<td>S</td>
<td>P</td>
<td>S</td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
Participant # 6: Student verbalizations in Task 3.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>P</td>
<td>S</td>
<td>P</td>
</tr>
<tr>
<td>a. semantic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

Participant # 6: Student verbalizations in Task 3 continued.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V9</th>
<th>V10</th>
<th>V11</th>
<th>V12</th>
<th>V13</th>
<th>V14</th>
<th>V15</th>
<th>V16</th>
<th>V17</th>
<th>V18</th>
<th>V19</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>a. semantic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
Participant # 6: Student verbalizations in Task 4.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
<th>V9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td>S/P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>Y</td>
<td>N</td>
<td>Some</td>
<td>N</td>
<td>Y</td>
<td>Some</td>
<td>Some</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Participant # 6: Student verbalizations in Task Ex.

<table>
<thead>
<tr>
<th>Verbalizations</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Generality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. semantic</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. functional</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. perceptual</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Abstractness</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>3- Systematicity</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4- Functionality</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5- Significance</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
APPENDIX F

TASK SAMPLE

Tarea para el martes 14 de noviembre:

1. Actividad: Lee las dos situaciones de abajo (A y B) y escribe un párrafo para cada una.

2. Verbalización: Explicate a ti mismo la razón por la cual utilizaste el indicativo o subjuntivo usando el diagrama. Usa razones semánticas basadas en el SIGNIFICADO en base a lo que tú quieres expresar. Por ejemplo: “Uso el indicativo porque quiero asegurar, es decir, quiero expresar que la situación es verdadera y provee información nueva para mi interlocutor”, o “uso el subjuntivo porque estoy anticipando una situación que todavía no pasa”.

A. Tienes tres hijos pequeños, eres un padre/madre que quiere muchas cosas para sus hijos que ahora no tienen, pero tu deseo es grande y estás trabajando mucho para que en un futuro vivan mejor. Escribe un párrafo donde dirigido a tus hijos.

B. Tienes un hijo/a adolescente que está teniendo muchos problemas en la escuela. Tú fuiste un/a buen/a estudiante y crees que tienes las recomendaciones adecuadas para que tu hijo cambie. Escribe un párrafo dirigido a tu hijo/a.
BIBLIOGRAPHY


Davydov, V. V. (1984). Substantial generalization and the dialectical-materialist theory of thinking. In M. Hedegaard, P. Hakkarainen, & Y. Engstrom (Eds.), Learning and teaching on a scientific basis (pp. 11-32). Aarhus, Denmark: Aarhus University Press.


Draper, J. B., & Hicks, J. H. (2000). Where We’ve Been; What We’ve Learned. In J. B. Webb & B. L. Miller (Eds.), *Teaching Heritage Language Learners: Voices from the Classroom* (pp. 15-35). New York, NY: ACTFL.


