

3. Chapter three: Research Methods

As mentioned in chapter one, the purpose of this study is to determine the extent to which bilingual International Relations college students transfer reading strategies when reading texts in both their native language Spanish and their L2 English. The study also attempts to determine whether this transfer aids or hinders the reading comprehension process; if students are aware of using reading strategies, and finally, if students are aware of their comprehension monitoring process.

3.1. Participants

The present research study included 10 bilingual International Relations college students between the ages of 19 and 23 at the University of the Americas Puebla (UDLAP). This academic program was chosen because all International Relations students have been enrolled at least once in English content courses belonging to their academic department. They are also constantly encouraged to read different texts in this foreign language. In addition, students were placed at levels 4 or 5 of English according to the placement test applied at the UDLAP. Level 4 corresponds to level B2.2 of the Common European Framework of Reference for Languages, and level 5 corresponds to level C1.

3.2. Instruments

In order to collect the data analyzed later, the present research project consisted of the following materials:

- a. Reading texts.** Students read four texts, two in Spanish and two in English. All four readings were academic documents related to two courses in the International

Relations major. The subject of the first two readings was ‘Political Science as an Academic Discipline,’ while the other two readings were about ‘Ethics for Sustainable Development.’ The political science texts had a 20-minute time limit, while the Sustainable Development texts had a 30-minute limit.

1. The first reading was in Spanish: *La Ciencia Política en México: Papel y Desafíos*. This five-page academic article was written by Carlos Sirvent in 1985. To see the original text go to Appendix I.
2. The second reading, on the same topic, was in English: *Political Science in Canada*. This seven-page chapter was written by Burton Keirstead and Frederick Watkins in 1950. The chapter appeared in the book *Contemporary Political Science: A Survey of Methods, Research and Teaching* by UNESCO. To see the original text go to Appendix II.
3. The third reading was in Spanish: *Dimensión ética del desarrollo sostenible de la agricultura*. This twelve-page academic article was written by Juan José Pérez in 2005. To see the original text go to Appendix III.
4. The fourth reading, on the same topic as the third text, was written in English: *Reinterpreting the Definition of Sustainable Development for a More Ecocentric Reorientation*. This eleven-page academic article was written by Sophia Imran, Khorshed Alam and Narelle Beaumont in 2014. To see the original text go to Appendix IV.

b. Reading comprehension questionnaires. Students answered a number of reading comprehension questions after having read the four Spanish and English academic texts. The questionnaires for the four readings included four types of questions taken from Nuttall’s taxonomy as explained in chapter two (2005, as cited in Ehara,

2008). The types of questions used were linguistic, literal or textual comprehension, evaluative, and personal response questions. These questionnaires assessed students' understanding of the texts. The answers to the thematic questions, that is to say, the answers to the evaluative and the personal response questions served as a basis to learn how weak or strong students' metacognition was.

The comprehension questionnaires for the Political Science reading texts comprised twelve questions. The Spanish text had one linguistic question, seven textual questions, and four thematic ones, while the English text had three linguistic questions, six textual questions, and three thematic ones.

In contrast, the comprehension questionnaires for the Sustainable Development reading texts included fifteen questions. Both the Spanish and the English text had two linguistic questions, nine textual questions, and four thematic ones. To see the reading comprehension questionnaires go to Appendices V to VIII. Political science questionnaires had to be answered in a time limit of 25 minutes, while the texts of Sustainable Development in a time of 35 minutes.

- c. **Reading strategies materials.** In order to observe which strategies were used while reading the academic texts students were provided with materials to aid comprehension: highlighters, pens, plus monolingual and bilingual dictionaries. Students were encouraged to do whatever they thought appropriate with the readings.
- d. **Systematic observation rubric.** While the participants were reading, the researcher observed. For this purpose a systematic observation rubric was developed in order to determine what to observe. The rubric was written in both Spanish and English. The Spanish version was used to observe the participants and report the

observations when reading the Spanish texts, while the English version was used for the English texts.

Nine items were included in the Spanish rubric, while ten were included in the English variant. The statements were: 1) 'asks for help,' 2) 'which strategy is used after having heard options?' 3) 'asks for a monolingual Spanish/English dictionary,' 4) 'asks for a bilingual dictionary,' 5) 'asks for a highlighter,' 6) 'wanders away while reading,' 7) 'wanders away while answering,' 8) 'time taken to read Spanish/English text,' 9) 'time taken to answer Spanish/English questionnaire,' and 10) 'other observations.' To see the observation rubric go to Appendix IX.

As Cohen (1998) explains, not all language and strategy use is observable; most of these behaviors occur only in the mind. However, there are certain strategies and actions that can be explicitly observed and that can be reported. Cohen (1998) suggests that an observation checklist be created for those observable performances. Therefore, the present systematic observation rubric was developed as a semi-structured time-saving resource.

- e. **Reading strategies inventory.** In order to assess more explicitly the kind of strategies that students used when reading, the participants answered the "Metacognitive Awareness of Reading Strategies Inventory" developed by Mokhtari and Reichard in 2002. This inventory was translated into Spanish for the convenience of the participants. The original list consisted of 30 statements; however, it was modified to meet the needs of both the reading texts and the reading comprehension strategies. At the end, 27 of the most significant items remained, after adding one more taken from the "Survey of Reading Strategies" developed by

Mokhtari and Sheorey (2002). In addition, the Likert scale used to evaluate the use of strategies in the inventory was replaced by two columns: 'Spanish' and 'English.'

The statements of the original inventory invite the reader to reflect on general strategy use. Nevertheless, Cohen (1998) says that instruments should assess as promptly as possible specific tasks which have been already carried out. Following this recommendation, the items of the inventory were modified to evaluate the specific use of strategies in the readings of the present study. The instrument was answered twice by the participants at the end of each pair of readings and comprehension questionnaires. To see the reading strategies inventory used to assess the International Relations participants go to Appendix X.

- f. Interview.** To complete the data collection, a 15 minute semi-structured interview was conducted with each participant. The interview contained questions related to students' experience regarding their English language acquisition, their acquisition of literacy skills, their reading habits, their monitoring process, and their use of strategies in both general readings and specifically in the Political Science texts of this research study. To see the format of the interview go to Appendix XI. Each conversation was recorded and its information later encoded in an Excel table with all of the interrogative statements. To see an example of participants responses go to Appendix XII.

Before conducting the research with the ten International Relations participants, the previous instruments were piloted with other students at the UDLAP to test their effectiveness. The four questionnaires were answered by five undergraduate Linguistics students. The questionnaires were modified after noticing a number of issues. While the

Linguistics students were reading, the researcher reported her observations in the systematic rubric. The rubric seemed fine and modifications were not needed. Finally, the interview was conducted with twelve other students. The interview was modified after its very first application and had little or no modifications after that.

The instruments were provided to the participants in the following order: First, the researcher presented them with the highlighters, pens, and dictionaries. Then, the first Spanish text was given, and immediately after reading, the corresponding comprehension questionnaire was answered. Later, both procedures were repeated with the first text in English. While students were reading and answering, the researcher was reporting her observations in the systematic rubric.

After finishing answering the English comprehension questionnaire, students answered the metacognitive strategies inventory. Some days later the interview was conducted. In a final session, students read the last two texts, one in Spanish and the other in English, and answered the corresponding questionnaires. The researcher observed and reported, and students answered the metacognitive strategies inventory once again.

Each reading used in the study had a different purpose. The goal of the first two readings was to observe how readers normally behave when encountering academic articles, this is, how they read and the kind of strategies they use to overcome difficulties. Reading strategies were explicitly shown to students in three different moments: in the strategies inventory, in the interview and after the interview when students were handed a copy of the strategies inventory. Therefore, the purpose of the Sustainable Development

texts was to see how aware students were of these strategies and how many of them they used more than in the first two readings.

3.3. Data Analysis

Chapter four of this research project will analyze the kind of strategies that the participating International Relations students used while reading in their L1 and L2, the possible presence of reading strategy transfer, the level of awareness of both reading strategy use and the comprehension monitoring process, and within the limits of this project, their reading comprehension process.

The results will be analyzed in the following order:

- a. Results from the researchers' observations along with the evidence from the readings will be analyzed qualitatively only by reporting what was observed. The report will consist of the most relevant data of the systematic rubric of the observations and of the most important evidence of what students did with the readings. This description will be given in order to analyze the kind of strategies students use and the possibility of strategy transfer.
- b. Results from the comprehension questionnaires will be analyzed both quantitatively and qualitatively. The quantitative description will provide the number of correct answers in the questionnaire and will also be analyzed through charts; the questions analyzed by this method are linguistic and textual. The qualitative description will provide a report of the generalized answers students gave in the thematic questions. Both methods will analyze students' comprehension level.

- c. Results from the metacognitive awareness inventory will be analyzed quantitatively by reporting and making charts of the number of strategies used per person, the average of strategy use, the most used strategy type and the most used strategy within each strategy type.
- d. Answers from the interview will be analyzed qualitatively by reporting the generalizations and the most important data. Some quantitative analysis might also be used when reporting the number of students who were truly aware of their use of strategies and of their reading comprehension monitoring process.

Chapter four will also present the most relevant results obtained from the implementation of the materials described above in this chapter, as well as the analysis of these data.