

## STUDENTS' VIEWS OF TIME AND TENSE REPRESENTED IN CONCEPT MAPS

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**Abstract.** The uses of verb tenses and its connections with the concept of time represent one of the major difficulties to EFL students who are native speakers of Portuguese. This study addresses the possible relevance of establishing linkages between the concepts of time students already have in their cognitive structure to concepts of verb tense. The author believes that the lack of opportunities granted to students to think about what constitutes time and how this is related to the use of verb tenses may engender many of the problems students have in this area. Students were invited to think about the concept time, and then they discussed it and represented their ideas of time in concept maps. After sharing their meanings expressed in their concept maps about time, they proceeded to the final stage of the experiment: they drew group maps in which they established linkages between/among concepts of time associated to the use of verb tenses. Interactions among students, groups and the teacher were promoted spontaneously during maps presentation and the interaction among groups, students, and teacher. Key words: Time; verb tenses; usage; relations; meanings; concept map.

### 1 Introduction

This paper addresses an issue that has concerned teachers of English as a Foreign Language<sup>1</sup> for years, and it is related to the understanding of how EFL students deal with their conceptions of time while they use verb tenses in their English language tasks. The research questions that underlie this study are: How do students understand the concept TIME? and Do students relate the concept TIME to concepts linked to the use of VERB TENSES? In this study, which occurred along the first semester of 2003, 40 college students majoring in languages (Portuguese with a minor in EFL and majors in EFL) and already familiar with the use of concept maps in their Literature and/or English Language classes, answered two questions: What is TIME? Can you represent TIME and its relations to verb tenses in a concept map? The focus here concerns the way students conceptualize time and whether or not they can establish linkages between the use of tenses and the concept(s) of time they have in their cognitive structure expressed here in their concept maps. The framework here has been the theory of meaningful learning and concept mapping (Novak and Gowin, 1984; Novak, 1977) and the ideas of Celce-Murcia & Larsen-Freeman (1983) and Moreira (1994) about language teaching.

The springboard for this article was an experiment carried out in 1990<sup>2</sup> with 82 college students from different fields of study aiming at verifying the ways those students understood concepts of time and their linkages to concepts of verb tenses. Findings from that experiment suggested that most students presented difficulties in establishing linkages between their concepts of time with the use of verb tenses since, for most of them, time was unchangeable in meanings (either perceived as a straight line that went from the past to the present and future, or as a circle containing those verb tenses), so it seemed that they could not think of possibility of choices for the use of verb tenses in relation to time. As in that study research findings suggested that students seldom related the use of verb tenses to the concept(s) of time and that this lack of linkages probably hindered their understanding of meanings underlying the choice of verb tenses, this paper is as an attempt to verify, in 2003, what students think about time and tenses. The 40 students who participated in this 2003 study were all college students of languages (Portuguese/English and EFL), at different levels of the course: twenty students were in their last semester of their EFL course; ten students were taking disciplines at an intermediate level; ten students were in their initial semesters. Except for the students in their last semester of EFL, the others could present their views, explain their drawings/representations, and answer the question about TIME either in Portuguese or in English. However, although they had this choice, most of them responded in English.

<sup>1</sup> English as a Foreign Language, which means that English is taught and learnt in an environment in which it is not needed for communication and interactions in the community. English is seldom used outside the classroom.

<sup>2</sup>“Students’s misconceptions of time/relativity in language learning” a paper presented at the Third International Seminar on Misconceptions, 1993, Cornell University, Ithaca, USA, organized by Prof. Dr. J. Novak.

It seems relevant to state that these subjects were enrolled in two different disciplines (twenty in American Literature and twenty in Teacher Training Practice) with the same teacher, who is the author of this paper. Data yielded by answers, representations of these answers, concept maps and their explanations were shared by the whole group (the 40 students), who received copies/transparencies of what their peers had done. Knowledge constructed along the semester encouraged them to further comments, suggestions, concept map constructions that, in turn, would be shared again among the participants.

These students had been informed beforehand that their answers, representations, and explanations would not be graded in a traditional way (with number or letter grades), but that they would be evaluated considering their willingness to learn, expressed through collaboration with peers, participation in brainstorming and discussions, construction of maps until they felt satisfied with what they had expressed in their maps. They were told that they could, if they wished, reconstruct the map and re-write their explanations until they felt confident about them.

## 2 Methodological remarks and the research issue

After more than two decades of EFL college teaching, the author expected the difficulties students presented with when trying to learn how to use different verb tenses in English. These learning problems just do not emerge from a vacuum<sup>3</sup>: students have brought them along elementary and high school English classes, in which facts and patterns are quite often linked to verb tenses, rather than the choices<sup>4</sup> that underlie the use of one tense<sup>5</sup> instead of another. Usually students have memorized verb patterns (e.g. infinitive form + S for the third person singular of the simple present regular verbs) and facts (e.g. the present tense is used for actions that happen now). Teachers sometimes do not emphasize the role choices play in the actual use of a language, although students enter college with years of practice in the skills of reading, listening, comprehension, and speaking. Students, in many of their schooling experiences, have not been granted opportunities to think about how and/or why<sup>6</sup> language functions the way it does. Students, in general, have not been prepared for learning autonomy<sup>7</sup>, but rather to follow rules established by a teacher who is at center of the teaching event.

The students here often stated that they did not know how to select the verb tense that could more adequately express the point they wanted to make. Ten of these students also informed the teacher that, as native speakers of Portuguese, they thought the most difficult grammar item to master was the use of verb tenses since they considered the grammar of the two languages absolutely different. Whereas 20 students replied that the two languages were not that different at all, and that time could be expressed in both languages quite similarly. However, the biggest hardship for them was that they had never given much thought to the meanings underlying the available choices for the use of tenses to represent, even in their own language, an event within a time framework, although they had memorized facts/rules and patterns related to verb tenses. The twenty students in their last semester of the EFL course complemented what others had said and stated, from their own practice—experiences in the discipline Teacher Training Practice—that the high school students they had observed seemed far from having been encouraged to construct meanings in relation to verb tenses and their connection to concepts of time.

In Portuguese, meanings of verb tenses are quite similar to the ones in English, though tense and time are both translated into Portuguese with the same word: tempo. Students in the 1990 study pointed out that could be a source of problems for Brazilians in EFL courses. Students, in 2003, did not seem at ease either when they were supposed to use the perfective aspect of verbs, though the meaning this verb aspect adds to the utterance in English is much similar to the one in Portuguese. When we say in Portuguese “Tu tens estudado muito” or “You have studied a lot”, in both languages the meanings attached to the sentences is that you started studying sometime in the past + you are still studying+ it seems that you will continue studying. These are commonalities shared by the two languages.

Notwithstanding, almost 70% of these students reported that they had never thought about these meanings when speaking and writing in Portuguese. For them, thinking about meanings attached to verb tenses constituted something new since, as they had stated, many of their former teachers seemed to believe that teaching a language was teaching about the language.

<sup>3</sup> Ausubel, 1968; Novak, 1977; Novak & Gowin, 1984.

<sup>4</sup> Ellis and Sinclair, 1989.

<sup>5</sup> Celce-Murcia & Larsen-Freeman, 1983.

<sup>6</sup> Gowin, 1981.

<sup>7</sup> Moreira, M.M., 1994.

### 3 Students' reports on their class observations

The twenty students taking Teacher-Training Practice at UNISINOS (Universidade do Vale do Rio dos Sinos), reported, at the end of their compulsory observations of English classes in public and private schools that:

- a) It seemed that neither teachers nor students demonstrated any specific concern with relations that could be established in the choice of an adequate use of verb tenses with particular context of time.
- b) Verb tenses are taught as if they have been put away inside different and independent *drawers*.
- c) Students seem to be encouraged to believe that facts and patterns are crucial to learn verb tenses.
- d) Many teachers seldom deal with verb tenses in their relation to a speaker/narrator and to a reader/listener considering the time of the narrator/speaker and of the reader/listener.

#### 3.1 The teacher researcher asked students about what seemed to be the problem

Student teachers felt frustrated with the teaching situations they had witnessed, and brainstormed about the problems. They discussed the issue with their peers and came up with some possible answers: a) The way to improve students' learning linked to the use of verb tenses seemed to be to emphasize the close relation between what students already knew about the concept time and the use of verb tenses<sup>8</sup>. b) One of the major drawbacks in teaching was that most of the observed teachers followed the textbook. c) Instead of stressing the relevance of thinking and relating what they already knew about time to what they were learning about the use verb tenses, teachers seemed to favor rote learning. d) There were teachers, however, who confessed they had started the school year planning on contextualizing grammar items, specially the use of tenses, but they realized that most students seemed not willing to think and hypothesize<sup>9</sup> about what they were studying in their classes, then they went back to the so-called 'traditional'<sup>10</sup> mode of teaching.

These 40 college students agreed upon what might be one the major causes for this issue concerning the teaching of the use of verb tenses was that teachers usually taught the way they had been taught, while those observed students seemed averse to any changes because they could mean an increase in their workload. They stated that, as teachers-to-be, they would be responsible for changes to improve teaching and learning through thinking and knowledge construction. The teacher-researcher encouraged by these statements, suggested them two tasks related to the use of verb tenses and the concept *time*. Students were highly receptive and willing to participate. They were told that answers and concept maps would integrate their evaluation and that they could repeat the construction of their maps, as well as the answers to the questions until they felt confident about what/how they had done. Students worked in small groups and teacher emphasized cooperation among students. They were encouraged to interact with their peers in the last twenty minutes of a two-hour class period. Those who worked individually would participate in discussions and in the representation of their thoughts in concept maps.

### 4 Questions and answers

#### 4.1. What is TIME?

The students' answers can be summed up as follows: a) Time is like a line that starts at some point way back in the past and goes on to an unknown point in the future. b) Time can be thought as a line that is marked by events in the past and the present and it ends in a future with unknown events. After discussing their answers, these groups expressed their thoughts and interactions about time in these concept maps, as shown in Figures 1 and 2.

Students shared the map with their peers and explained (and expanded) it as follows: "TIME really runs as a straight line, and once it starts, there is no way it can go back, because it goes and goes from past (yesterday, last year, the time of dinosaurs) to our days (this morning, now), and from today/now to the future (tomorrow, tonight, next month, ten years from now) up to something that for us stands as a huge question mark, representing what lies ahead in the future. Death? Afterlife? Eternity? (Group 1, 2003)".

<sup>8</sup>Novak & Gowin, 1984.

<sup>9</sup>Gass & Selinker, 2001.

<sup>10</sup>Traditional teaching here means having the teacher at the very center of the teaching/learning event as the controller of everything that he/she has planned to happen inside the classroom ( according to Novak, 1998).

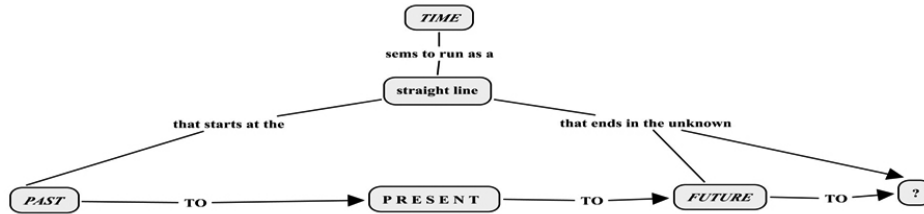


Figure 1. The forwardness of the line of TIME leading to unknown

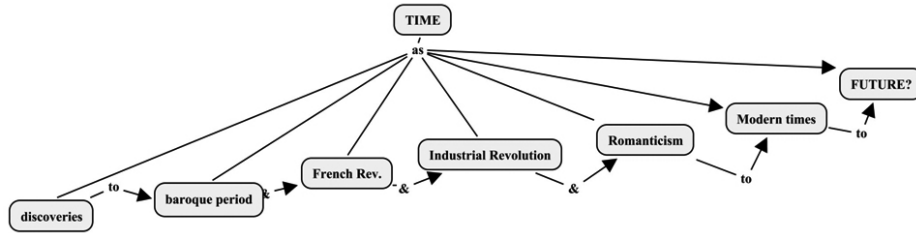


Figure 2. TIME marked by events in history with an unknown future

Students explained their representation of time in this map to their classmates. “TIME is puzzling, and we thought time in terms of historical and/or literary events and although we know that there were many events before the great discoveries (15th and 16th centuries) we decided not to go much further on into the past. We represented time as happenings from the periods of discoveries, the baroque in literature and history, the French Revolution, the Industrial Revolution that modified human life; Romanticism brought new life styles that led to new ways of expressing feelings and describing the world. Well, Modern Times historically has started in the past but we infer their relation to NOW. And the future belongs to God, our actions, and/ or to fate, since we do not know what will happen there (Group 2, 2003)”.

c) Time is a line that goes round and moves from the past to the future, but it continues into something we call “infinite”, and then it starts all over again in its encounter with TIME, and the circle never ends. This group represented time as shown in Figure 3:

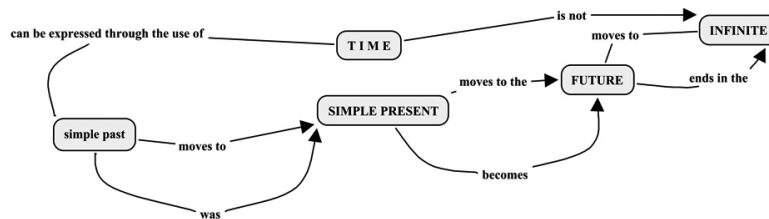


Figure 3. A concept map for Time as a line moving from simple past to simple present and to the future

In their explanation for their expression what they thought and felt about time, they stressed that time never ends whereas human beings do, although their life cycle might continues in the memories of those who have loved them. The “simple past tense” can express a period that is over and done with, though time moves and becomes now, as it moves on to the “simple present tense”. Then, the simple present, with the passing of time, becomes the future. The future moves on to the infinite where it ends. We expressed in the map the infiniteness of time when the circle is closed with the never-ending repetition of these stances with generations and generations of human beings. For us, however, TIME IS NOT INFINITE (Group 3, 2003)”.

d) TIME comprises a flow of moments in the past, present, and future.

This group shared with peers the concept map drawn to sum up their thoughts about TIME, as shown in Figure 4.

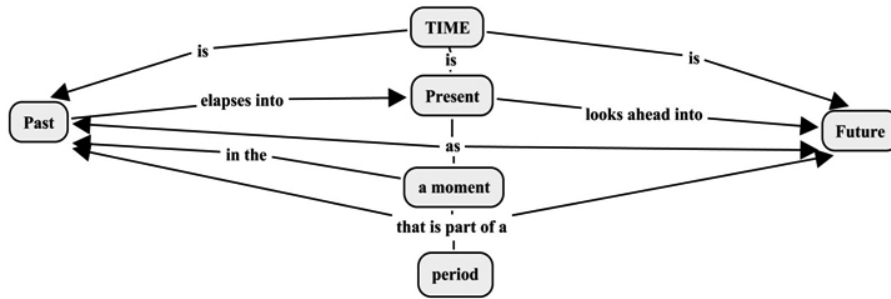


Figure 4. A representation of Time as marked moments and periods in the past, present, and future

The group explained their standpoints as shown in Figure 4. “We did not make explicit the most important concept—TIME—because we thought this would not be necessary since the map was part of our answer linked to our ideas about it. The concept time was positioned at the very top of our map: TIME is the concept that comprises all the others. We perceive the different instances of time, that is, past, present and future, as a moment, or a sequence of moments, that looks back into the past, as the present will surely become the past, while the past elapses into the present, while the present becomes/looks ahead into the future. Time is quite complex because it encompasses looking back and forward from a given point—though we have not let this clear in the map. But examining it now (a moment in the present, which right after having it said or written, becomes part of the near past), we can notice that the point in time in which we stand, while looking at moment that forms a period of time, is relative to back or forward movements. So, if we are in a moment in the past, the present is the future; if we are in a moment of the present, this single moment becomes past in less than a fraction of second. We agree with what we have represented in the map, though now, at the time we are explaining it, we are able to perceive important things we have left out of it. The map we have in our minds at this period, which is made of moments, is different and much more comprehensive than the ones when we have drawn the map (Group 4, 2003)”.

e) TIME is an idea that encompasses past, present and future. Students in this group used their concept map—shown in Figure 5—to justify and elaborate a bit more on their answer.

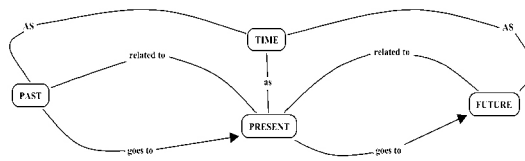


Figure 5. TIME as an idea that encompasses past, present, and future

“As you may notice, our map reminds us—a bit roughly—of a pair of spectacles. Actually there has been another group before our presentation that did something quite similar although nobody has been aware of this resemblance. We realized this when we thought the map could be adequate enough to represent our positions and thoughts about TIME. Then we started thinking that, though not consciously, we look at TIME through spectacles of past, present and future, which are interrelated. TIME is present, past, and future depending on the way we look at it, think about it, feel it, and remember it. The present is at the nose bridge of the goggles because we, usually, see or look at things/events from the perspective of the present. This, however, might shift, as we get older so that the past might be in this position later in life. Thus, Einstein was correct with his relativity stuff! (Group 5, 2003)”

f) TIME is life. “It is the sequence of events that have marked my life up to now and that will continue to do it in the future. I did the map by myself because I could not attend last class, but I showed it to my peers and they offered suggestions that were quite enriching.”

This is an individual answer, though some groups have interacted with this student about the point he/she was trying to make. After brainstorming and argumentation, he/she has slightly modified it. Here is the concept map, shown in Figure 6.

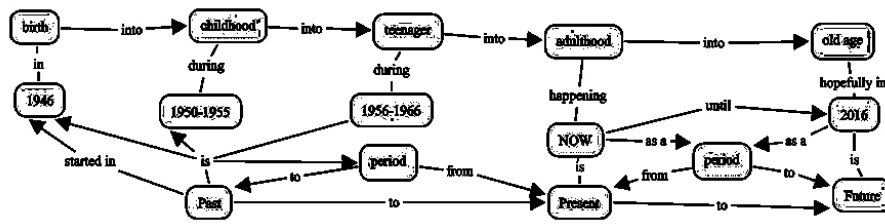


Figure 6. A representation of TIME as moments in life

The student explains his/her construction:

“In this map the most important concepts are at the very bottom: I should have rotated it, but I have not. I will redo it and will include at the top the concept TIME, which is so embedded in the ideas presented here that I have forgot to do it, but I have it in my drafts. LIFE should have been also included right below TIME, and the linking word would be “as my”(TIME as my LIFE). Everything is connected and there is interaction because past, present and future interact as each one of hem leads to the other, and as each one of them has effects on the different periods of time in my life. Because I am a bit afraid of what awaits for me in the future, my present/past has been affected. We cannot go back in TIME, but we can relive periods of our past as we can pre-live future moments with our imagination. TIME moves as we move and, as we look at it changes as we move from now to yesterday or tomorrow (Student C., 2003)”.

g) Time can be defined as cycles in overlapping circles. Again this answer comes from an individual student who used the concept map shown in Figure 7 to explain his/ her way to conceptualize time.

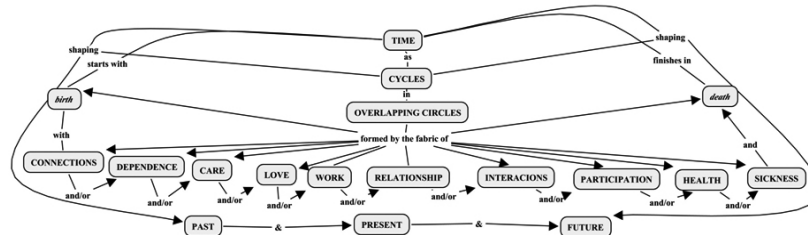


Figure 7. TIME as cycles similar to overlapping circles starting with birth and ending in death

He/she explained the map as follows. “For me, TIME has many cycles that shape past, present, and future. The cycles overlap, meaning that one cycle has bits of the other cycle(s), and they weave the fabric of life, with feelings, emotions, and physical/emotional states. TIME starts at the birth of a person and ends at his/her death. Time weaves everything together (Student D. 2003)”.

#### 4.2 Can you represent TIME and VERB TENSES in a concept map?

The students, after having participated in the presentation of maps with a discussion on the elements of TIME, answered this question by presenting and explaining a concept map. The students worked in groups and they shared ideas and meanings about all maps presented. The concept maps shown here were selected by the students as representatives of various ways of looking at TIME and VERB TENSES. The ones in Figures 8, 9 and 10 were collective maps, and students considered them the most complete ones, although they stated that, based on these maps, they would be able to come up with new interrelated concepts and with new The linkages/propositions. Maps in Figures 8, 9 and 10 were drawn collectively after meaning negotiation and sharing of these meanings among the various groups that included the 40 students participating in this study. Actually, Figures 8 and 9 present concept maps that, according to the students, complete each other, not by super-posing them but by using them side by side, because there are concepts in Figure 8 that expand concepts in Figure 9, and vice-versa.



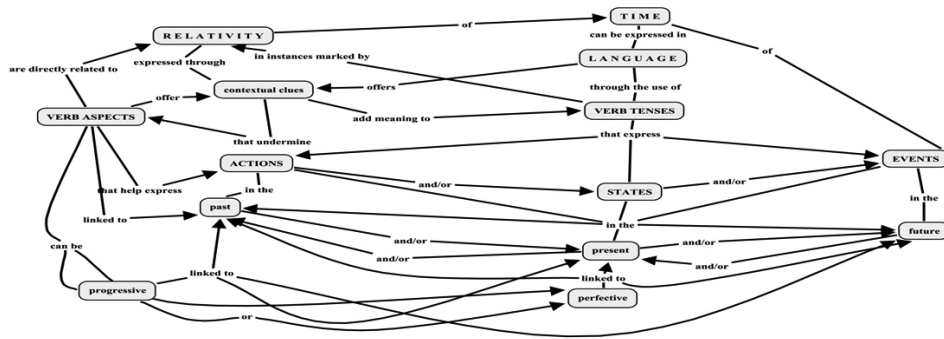
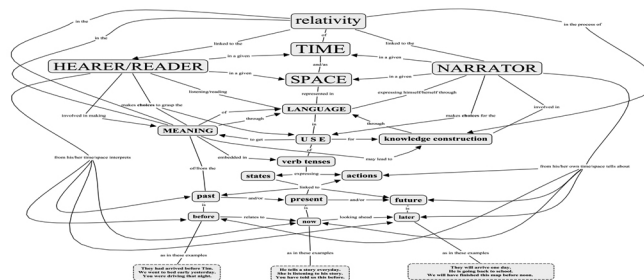


Figure 8. Relativity and time as expressed in verb tenses and aspects

Students explained these two maps emphasizing their many points in common and that they kind of complemented one another. “In the map—Figure 8—we came up with the concept TIME that is comprised in RELATIVITY since the use of verb tenses/aspects depends on contextual clues that add meanings to what we want to express when we use a given tense. TIME and its RELATIVITY are expressed through language and they are directly correlated to the use of the progressive and perfective aspects of verbs, as well as any tense. It seems quite impossible for a speaker/writer/reader/listener not to establish linkages between TIME/RELATIVITY and the USE OF TENSES (Representatives of the 40 students who constructed collaboratively this map, 2003)”.

“The second map (Figure 9) is quite similar to the previous one drawn last week, although it adds the concept SPACE to the picture, together with an explicit stress on MEANING, DOING (in the previous one we used the concept name ACTIONS), and on the concept FORESIGHT linked to the future. RELATIVITY underlies SPACE the same way TIME implies SPACE and RELATIVITY, whereas CONTEXT is very close to SPACE. MEANING is crucial since it can provide additional clues to CONTEXT. We repeat that the awareness that there is relativity in TIME has helped us in perceiving it as something that can move in many directions. As one of the groups explained about the map that reminded us of goggles, we can say that by realizing this might help us teach our own students in a more meaningful way. Furthermore, these interactions among groups for sharing maps and ideas have been very enriching and we will use concept maps and their explanations with our students. (Representatives of the 40 students who constructed collaboratively this map, 2003).”

#### 4.3 Students summed up their ideas on TIME and VERB TENSES in a CONCEPT MAP



This map tries to look at concepts students have used in their other maps taking into account all the maps, but mostly the last two ones, shown in Figures 10 and 11. For the first time they have resort to examples (in blue at the bottom of the map) attempting at clarifying what they have understood as BEFORE, NOW, LATER. “This map represents the thoughts constructed this semester about this important language issue: the use of tenses in English. We have also thought about our own language and we have “discovered” meanings behind the use of each tense/aspect, and we might say that we have learned a lot about the use of tenses in Portuguese after school, when we have had many a-ha experiences<sup>11</sup> for being suddenly aware of the linkages between TIME and the USE OF TENSES/aspects. We have had conversations about the way we could help other EFL students understand meanings embedded in tenses because

of the different meanings of time depending on the context of the participants in an interaction. What we mean to say is that TIME depends on the eyes of the beholder (Representatives of the 40 students who constructed collaboratively this map, 2003)".

## 5 Concluding remarks

The initial questions about the reasons why students have problems concerning the use of verb tenses in general, and of the perfective aspects of tenses in particular, seem to have as possible answers, according to what was expressed by them in opinions, answers and drawings, follows:

a. Students seem to be led by teachers to memorization of rules without any connection to what they already have in their cognitive structure. That is, verbs are taught through fixed sets of rules with examples and applied to an artificially designed use, in which the element 'choice' is not considered.

b. Verbs are studied without any link to time-space, so that facts and patterns of verb tenses are completely outside a framework of context, content, narrator/writer, listener/reader, author. c. In general, teachers and students see time as a line that moves forwards so that they have difficulties understanding the perfective aspects.

d. Student's difficulties in associating TIME with the USE OF TENSES may determine most of their problems concerning their exercise of choice and autonomy linked to verb tenses in a real situation.

e. EFL textbooks seldom aim at constructing knowledge based on concepts and besides many teachers feel safer when using a textbook<sup>12</sup>.

f. Students seemed to have learned the use of verb tenses more meaningfully through the use of concept maps.

These forty students seemed motivated to construct their concept maps throughout the study. Cognitively speaking, their previous knowledge seemed to have improved their ability to handle grammar items—verb tenses more specifically here—both as students and teachers-to-be. The awareness of their autonomy in learning how to learn seemed to have been built with the help of concept maps based on the knowledge that resulted from peer interaction, sharing of meanings, group cooperation, brainstorming, collective drawing of maps, as well as classroom observation. Working collaboratively with their peers and the opportunity to draw the maps until they felt satisfied with the way they had represented the thoughts and feelings they wanted to express, as well as the freedom from the dichotomy "right"/"wrong", might have granted them autonomy for making their own choices after thinking, individually and collaboratively, and for sharing and negotiating meanings.

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<sup>11</sup> Richards, 1996.

<sup>12</sup> The comments on textbooks come from observations but they do not mean to state that textbooks are bad. In fact, most of them are quite good and some teachers really know how to use them, creating opportunities for meaningful learning.



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