

# Explicit Vocabulary Instruction in an English Content-Area Course with University Student Teachers: When Comprehensible Input Needs to be Comprehended<sup>1</sup>

Héctor Manuel Serna Dimas<sup>2\*</sup>  
*Universidad del Rosario, Colombia*

## Abstract

This action research study explores explicit vocabulary instruction in an L2 (English) content-area course with a group of university student teachers. The study reviews several positions on the treatment of vocabulary in L2 contexts. The researcher takes up the teaching of explicit vocabulary through class activities and the students' completion of vocabulary entries in a Word Study notebook. The data collection procedures included the teacher's lesson plans, the students' Word Study entries, and their opinions on both their vocabulary learning and their notebook completion through a final interview. Research findings reveal that the Word Study notebook did contribute to students' learning since they had a grasp of the vocabulary used in the class in terms of participating in the instructional conversations led by the professor and doing the class activities.

Key words: explicit vocabulary instruction, word study notebook, instructional conversations

## Resumen

Esta investigación acción explora la enseñanza explícita de vocabulario, en un curso de contenido en segunda lengua (inglés), con un grupo de docentes en formación. La investigación analiza varias perspectivas en la enseñanza de vocabulario en contextos de segunda lengua. El investigador asume la enseñanza explícita de vocabulario a partir de actividades de clase y las anotaciones de vocabulario en un cuaderno de estudio de palabras realizadas por los estudiantes. Los procedimientos de recolección de datos incluyeron los

<sup>1</sup> Received: January 12th, 2011 / Accepted: July 21st, 2011

<sup>2</sup> Email: [hectormanuel68@hotmail.com](mailto:hectormanuel68@hotmail.com)

planes de clase del docente, las anotaciones en los cuadernos de los estudiantes y una entrevista final con las opiniones de los mismos en cuanto a su aprendizaje del vocabulario y su diligenciamiento del cuaderno. Los resultados de la investigación revelan que el cuaderno de vocabulario contribuyó al aprendizaje de los estudiantes en cuanto ellos se apropiaron del vocabulario empleado en la clase en las conversaciones guiadas por el maestro y participación en la misma.

*Palabras claves:* enseñanza explícita de vocabulario, cuaderno de palabras de estudio, conversaciones de clase

#### Resumo

Esta pesquisa ação explora o ensino explícito de vocabulário, em um curso de conteúdo em segunda língua (inglês), com um grupo de docentes em formação. A pesquisa analisa várias perspectivas no ensino de vocabulário em contextos de segunda língua. O pesquisador assume o ensino explícito de vocabulário a partir de atividades de classe e as anotações de vocabulário em um caderno de estudo de palavras realizadas pelos estudantes. Os procedimentos de coleta de dados incluíram os planos de classe do docente, as anotações nos cadernos dos estudantes e uma entrevista final com as opiniões dos mesmos em quanto a sua aprendizagem do vocabulário e seu preenchimento do caderno. Os resultados da pesquisa revelam que o caderno de vocabulário contribuiu à aprendizagem dos estudantes em quanto eles se apropriaram do vocabulário empregado na classe nas conversações guiadas pelo maestro e participação na mesma.

*Palavras chaves:* ensino explícito de vocabulário, caderno de palavras de estudo, conversações de classe

Scholars who have worked in the teaching and learning of L2 vocabulary have used a variety of approaches which James Coady (1997) summarized in four main positions. The first position has to do with the contextual acquisition of vocabulary. This view is based upon the claim that individuals' vocabulary learning will be a spin-off of extensive reading. The second perspective is strategy instruction whose proponents doubt the context alone approach and advocate for the teaching of explicit strategies to students in their vocabulary learning. A third view maintains that learners need the explicit teaching of certain vocabulary through various activities making an emphasis on word lists at the early stages so that eventually learners will rely more on context. The fourth position pays special attention to the explicit teaching of vocabulary through specific classroom activities. In this view of vocabulary instruction, teachers use vocabulary handbooks so that learners use textbooks as guides of their vocabulary development which can also be divided in levels from beginners to advance.

In this action research project, I argue that L2 learners in content-areas at university level require explicit vocabulary instruction. My claims are also in favor of those scholars who have taken the position that input, in this study vocabulary, actually requires to be comprehended by students so that learning takes place. I do not think it is enough to list key vocabulary for students to memorize or to talk about words as part of reading comprehension sessions in content area classrooms. On the one hand, teachers working in content in L2 need to make vocabulary part of their lesson plans and instructional conversations (Cazden, 1988) so that students actually have opportunities to encounter concepts in their contexts. On the other hand, students learning content need to develop a very good command of the concepts they are learning because many of them are not just words they need to recognize to guarantee their successful reading comprehension; they are notions they need to know so that they can develop further elaborations on a concept or a network of concepts to really grasp the theoretical foundation of a particular subject.

I address the issue of explicit vocabulary instruction in an L2 content-based course with a group of student teachers at *Institución Universitaria Colombo-Americana, Única* in Bogotá, Colombia. First, I briefly describe the background to the study and my area of focus in order to help readers establish an idea of the context where I conducted my research. Next, I review some empirical studies on the nature of both L2 vocabulary acquisition and learning. The theoretical tenets for my study stem from social interactionism, sociocultural theory, activity theory, and theories of second language vocabulary acquisition. In the following section of the article, I deal with the action research methodology displayed in this specific classroom exploration, the data collection procedures and the data analyses. I offer some findings on the role of explicit vocabulary instruction and learning in L2 a content-based area. I end the article by establishing both the limitations and the conclusions of the study.

### Background

*Única* is a private university founded by a group of business people concerned with the present and future of Colombian education. One of the main goals of the university is to integrate professional bilingual teachers in different walks of society so that they contribute to improving the quality of instruction in English as well as to spreading bilingual education in different strata in Colombian society.

*Única* students receive instruction on a variety of subjects that are clustered around some fundamental elements of their preparation

such as language, culture, research, administration, linguistics, second language acquisition and identity. The course on Phonetics and Phonology is part of the linguistics component of the student teachers formation; it intends to explore both the theoretical and practical aspects of English Phonetics and Phonology in both language learning and teaching.

One of the main goals for Única professors is to work with their students using the most recent approaches to teaching L2 learners. One of such approaches is the Sheltered Instruction Observation Protocol (SIOP), both a methodology and a protocol to work with L2 learners in content-areas. Echevarría, Short, and Vogt (2004) coined the acronym and developed a methodology based on empirical research with L2 learners in the educational system in the United States. The research findings that support the SIOP helped these scholars to create a teaching cycle with eight components: lesson preparation, building background, comprehensible input, strategies, interaction, practice/application, lesson delivery, and review and assessment. Each one of the components is meant to help both teachers and students to develop sheltered instruction-that is, instruction whose main goal is to make content accessible to students at all times.

The SIOP component on building background establishes that teachers need to pay explicit attention to the vocabulary demands that the course or a particular class may impose on students. Echavarría, Short, and Vogt consider that the SIOP needs to address academic language regarding vocabulary in three key elements “content words, process/function words and word parts that teach English structure” (p.59).

### **Area of Focus**

This study of explicit vocabulary instruction started as an exploration on the nature of students’ oral language use for academic settings. The initial investigation was on the levels of language elaboration students demonstrated in class. A preliminary gathering of data, their analyses, and further academic discussions in the SIRP (Sheltered Instruction Research Project) at Única helped me to focus my inquiry on the area of vocabulary.

Única students seem to perform in both spoken interaction and production at a B1 grade level according to the Common European Framework of Reference for Languages (CEFR) (Council of Europe, 2001). Nevertheless, the analyses of some of their speech samples showed that they had difficulties in both recalling and using concepts in

their attempt to articulate their ideas in academic English. The above situation allowed me to hypothesize that students would improve their oral language production in academic content classes if they received explicit vocabulary instruction in this area. I further hypothesized that students would widen their word knowledge in the content areas if they committed themselves to self-assess their own class participation. I tested this second hypothesis by having students make a Word Study notebook for their Phonetics and Phonology class. The notebook was also meant to give students the opportunity to articulate their ideas orally by participating actively in the professor's instructional conversations. The formulation of two research questions is the result of articulating my particular line of inquiry into the role of explicit vocabulary instruction in an English content-based course in tertiary education.

### Research Questions

1. What is the influence of explicit vocabulary instruction in students' oral language production for academic English at Única?
2. How do students self-assess their own vocabulary learning and oral participation in academic activities through their keeping of a Word Study notebook?

### Literature Review

Arnaud and Savignon (1997) conducted a study entitled *Rare Words, Complex Lexical Units and the Advanced Learner*. The researchers' goal was to see how the learners' level of language may parallel that of native speakers as they increase their study of "passive" knowledge of rare words and complex lexical units. The test results among several groups of both native and nonnative specialists showed that native-like performance was achieved in the case of rare words, but not in the handling of lexical complex units. Part of the explanation has to do with the constant exposure to these words; nevertheless, there are other causes for this situation to happen; one of these causes is that there is not an accurate way to measure the amount of language exposure that French teachers got in English prior to the study.

Reading has also been one of the most common scenarios to enact L2 vocabulary acquisition; this particular setting was chosen by Grabe and Stoller (1997) who analyzed the relationship between reading and vocabulary development in a personal case study conducted by William Grabe, one of the researchers. The intention of the study was to explore reading and vocabulary development in an L2 by using a case study

methodology. Reading was a good scenario for the improvement of the researcher's reading abilities in the second language. This positive experience very much aided the researcher's learning because he had the chance to read from a variety of genres and had the support of a good bilingual dictionary. The researcher had a good grasp of specific words which may have to do with the fact that he was a constant dictionary user, so the improvement was notable. The researcher experienced difficulties with words he could not relate to any reading experience. The word family association did not always work for the researcher encountered words whose meaning he could not figure out based on a possible association. There was a connection between the improvement of both listening and reading abilities. The exposure to particular genres also made a difference in the levels of language development since the researcher was more familiar with conversations, dialogues, and lectures during his five-month stay in Brazil.

Regarding oral production and vocabulary development as another setting related to vocabulary acquisition and development, the research study entitled *Oral Production of Vocabulary by Altman* (1997) demonstrated that there are important contextual factors such as opportunity and need to practice language items which support vocabulary development.

Some of the researcher's answers stated that the confluence of opportunity and the need to produce in terms of both instruction and language itself were made noticeable to the learner. The more awareness was raised on language forms, the more they became imprinted on the learners' language repertoire. It is worth adding that both the confluence of opportunity and the need to practice have to do with the actual encounters that the learners had with words which triggered one another.

Snellings et al. (2002) carried out a study whose purpose was to see the effects of written lexical retrieval enhancement in classroom settings. The study wanted to determine if the experimental treatment of fluency in lexical retrieval in an L2 could be effectively increased in an educational context. The findings demonstrated that there was a speedup in the lexical access of words by learners when they were asked to retrieve words in exercises oriented towards detection, correction, and translation. The study also demonstrated that training focusing on both speed and immediate feedback could change effectively the L2 cognitive word processing in production. The researchers concluded that their study allowed them to see that it was possible to develop a methodology to train learners in a specific skill in the classroom setting.

The next two research studies have to do with the use of notebooks to promote students engagement in vocabulary learning. Fowle (2002) conducted a study entitled *Vocabulary Notebooks: Implementation and Outcomes*. The researcher wanted to study the introduction of vocabulary notebooks in a high school in Thailand in order to help students increase their lexical competence as well as to promote their learning autonomy. Even though the results regarding vocabulary learning were not calculated thoroughly, the students were more actively involved in the learning of vocabulary as a result of the notebooks use. The use of the notebooks also promoted in students the use of self-management strategies as they took active part in designing their notebooks as well as selecting their entries.

Another study on the use of notebooks was conducted by McCrostie (2007). The author wanted to look into the vocabulary notebooks kept by 124 first year English majors at a Japanese university. The study found that students selected most of their words from their textbooks but they paid special attention to certain parts of speech over others. They had difficulties finding high frequency words, and they considered that the words they did not know were equally important. The researchers obtained information on how the uses of notebooks do not always match with the learning needs that learners may have as it appears in one of their conclusions.

### Theoretical Framework

Language is fundamental in helping people to build their social worlds. It is at the heart of this social world that the ideas of both Vygotsky and Feuerstein gave rise to social interactionism. One of the key concepts developed by both theoreticians is the idea of mediation—that is, the active role that significant people have in learners’ lives through symbolic activities. These people have the ability to shape experiences in order to help learners make sense of their own learning. Vygotsky’s take on this idea is called the Zone of Proximal Development (ZPD) which Williams and Burden (1997) define as “working together with another person, either an adult or a more competent peer at a level that is just above a learner’s present capabilities is the best way for the learner to move into the next layer” (p.40).

Feuerstein’s views of mediation, on the other hand, are based on the learner’s abilities to cope with the demands of the context, as he believed in the individual’s capacity to learn in the notion of structural cognitive modifiability. In other words, each individual has the potential to modify his cognitive structures over time. Another

key notion in Feuerstein's thinking is the idea of mediated learning experiences. These experiences are the ways in which learning can be shaped so that learners get the most of the learning experience. The idea of mediation also has to do with giving learners appropriate skills and technologies to deal with life in a changing society; it also implies the active participation of the learner in the process with the intention to reciprocate the interaction. Moreover, mediation entails that one of its outcomes is the learner's progression towards self-direction.

It is important to add to the idea of mediation the notion of artifact which does not only carry the idea of an object per se. An artifact according to Lantolf and Thorne is "both the material and the conceptual aspect of a human-directed activity in which this artifact contributes to the activity and it is constitutive of it" (p.62). The scholars emphasize the importance of debunking the material aspect of artifact for a human mediated activity in which agency is essential in determining the nature of the artifact.

A third constituent of this theoretical framework is activity theory as an alternative to understand human activity. Lantolf and Thorne state that the theory intends to resolve the constant dichotomy between the biological aspects of cognition, and how this cognitive capacity allows the individual to take part in culturally organized activities (p.210). The theory provides a framework to understand the relationships among a community and its conditions to regulate relationships as well as the actions of the individuals and the artifacts in creating activities for the collective.

Social interactionism, sociocultural theory, and activity theory conceptualize a series of elements that are very relevant for the particular context of my action research study. First, they all theorize about the relationship among individuals around the negotiation of meanings through symbolic activities and technologies whose ultimate goal is the construction of collective activities. Second, this negotiation of meaning around the production of cultural artifacts is oriented towards rendering outcomes in terms of teaching and learning for the parties involved namely teachers and students. Last, the explicit vocabulary instruction through classroom activities position both teachers and students as active participants in the mediation of cultural artifacts oriented towards the conceptualization of ideas in a course on academic content.

Vocabulary has been recognized as an area of important work for L2 learners in their processes of second language acquisition and learning. The distinction between social and academic uses of language



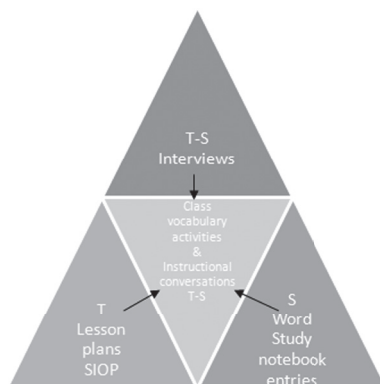
also applies for vocabulary since the repertoire of words that learners need to command match different communicative purposes. On the one hand, learners need to have a good grasp of function words that are highly productive in the language use and are mainly used in spoken English; some of these content words correspond to what grammarians would call parts of speech. On the other hand, there are sets of words that only occur in academic settings and are mainly used in written English. Many times these words are part of what most academic fields define as their particular registers which usually call for special meanings of words in specific contexts.

In these circumstances the study of vocabulary in a content-area requires from teachers explicit treatment since these words will be the building blocks for teachers and students to negotiate meanings and ultimately reach the course learning objectives. Nation and Newton (1997) in an article on the teaching of vocabulary argue for an approach that uses both direct and indirect vocabulary teaching. The former in the sense of explicit attention to words and the use of vocabulary exercises of various types. In the latter the teacher's concern will be to include rich vocabulary activities so students get exposure to words. Nevertheless, vocabulary will not be the entire focus of the class. Some of the guidelines that these scholars suggest have to do with the use of familiar vocabulary to introduce the targeted vocabulary so that learners are not overloaded with information. Another aspect to consider is the inclusion of unfamiliar vocabulary where it appears to be meaningful in order to maximize the learner's independence from both dictionaries and the teachers; the authors add that the task level difficulty should not defeat the purpose of vocabulary learning.

### **Research Design**

I elicited data from my own teaching by means of my lesson plans, instructional conversations, and explicit vocabulary activities. I also obtained information from my students' actions in their writing of a Word Study notebook together with their participation in class vocabulary activities and instructional conversations. Students' thoughts were included in the data collection through their participation in a final interview based on their personal making of the Word Study notebook (Freeman, 1998).

I illustrate my sources of data and research instruments for classroom research with the following diagram:



*Figure 1.* Sources and instruments of data collection

This pyramid intends to show how the sources of data and the instruments of data collection are closely intertwined, so the trustworthiness of the present study is based on how each one of the participants in the research process contributes to enacting the class vocabulary activities and instructional conversations from the perspectives of what each brought to the classroom namely the teacher's lesson plans and the students' Word Study notebook entries which are the most talked about activities in the present study.

The lesson plans were developed following the SIOP templates which have a specific section for both content and language objectives as well as key vocabulary. Most lessons addressed content words that were essential for understanding the material being studied. A moment of the class was also devoted to developing a vocabulary activity that worked to build background knowledge and eventually to initiate the instructional conversations between the professor and the students. Students had to come prepared with their notebook entries for each one of the lessons. They usually had the task to either complete the vocabulary activity for the class or share their particular entries of the key vocabulary in order to be part of the instructional conversations.

Table 1 . Sample SLOP Lesson and Vocabulary Activity

|   |
|---|
| <b>Topic:</b> Phonetics and phonology <b>Class:</b> Aspiration <b>Date:</b> 04-13-2010  |
| <b>Content objectives:</b> SWBAT determine some regularities for the production of consonant aspiration in English.   |
| <b>Language objectives:</b> SWBAT identify some rules on the production of aspirated consonants in English.   |
| <b>Key vocabulary:</b> aspiration, release, sounds, phoneme, allophone, positional variation, environment.  |
| <b>Materials:</b> book, Word Study notebook entries, class handout on consonant practice for aspirated sounds, CD with listening and pronunciation exercises.   |
| <b>Activities:</b> 1-Students will be given a cloze procedure in order to complete a paragraph whose main idea is positional variation in consonant production in English. 2- Students will share their notebook entries for the day. 3- Students will clarify their ideas about positional variation based on their word entries. 4- Students will develop some listening exercises to determine the positional variation of sounds that are either aspirated or non-aspirated depending on the context of their occurrence. |

Table 2. Sample class activity: Cloze procedure.

**COMPLETE THE PARAGRAPH WITH SOME CONCEPTS FROM THE STUDY OF PHONETICS**

Positional variation happens when \_\_\_\_\_ are pronounced differently in different \_\_\_\_\_. The variation is not so obvious for native speakers produce \_\_\_\_\_ of the same phoneme. Two examples of positional variation are the production of \_\_\_\_\_ sounds, and the incomplete \_\_\_\_\_ of stop consonant sounds.

Table 3. Positional variation

**Positional variation**

The same phoneme is pronounced differently in different environments.

**Positional variation**

It happens when a phoneme is produced in different contexts.

|           |     |            |       |
|-----------|-----|------------|-------|
| /p h/     | -p/ | /p=/       | _____ |
| aspirated |     | unreleased |       |
|           |     |            |       |
|           |     | /p/        |       |
|           |     | phoneme    |       |

**Interviews: The Use of the Word Study Notebook**

At the end of the semester, eight out of the nine students participated in an interview whose purpose was to reflect upon the use of the Word Study notebook. They were asked the following questions:

- How did you use your Word Study notebook?
- How did it help you in the course?
- In what ways did the Word Study notebook not help you in your learning?
- Will you use the Word Study notebook for future courses?

**Data Analysis and Interpretation**

The data collection exercise allowed me to keep track of students' individual work with the class activities and their completion of the Word Study notebook. The number of students in the course was rather

small, so I could pay attention to their class progress regarding their use of their notebook and their class participation with both the vocabulary activities and instructional conversations. All nine students gave their consent for their information to be used in the project, yet their names are pseudonyms to safeguard their confidentiality.

### Explicit Vocabulary Activities

Each class had a moment to work on a specific vocabulary activity as it was exemplified earlier in the cloze procedure. Students had to complete definition exercises, to answer specific questions, or to provide the definition for a particular concept. The instructional conversations used to start with the concepts that were not understood at all, or concepts whose definitions were conflicting in the students' vocabulary activity or Word Study entries. The conflicting concept definition was aimed at letting students articulate their ideas so that a class conversation would give the most plausible answer in the students own words. I think this aspect became relevant since many students claimed that their levels of participation were aided by the possibilities to moderate their approximations to the course concepts by correcting their vocabulary activities or sharing their entries. These two opportunities allowed vocabulary to be an important part of the instructional conversations developed in the class sessions.

Pedro and Rosa were perhaps the students whose vocabulary activities matched both their class participation in the instructional conversations and their actual Word Study notebook entries. Their work was consistent in both keeping their notebook and participating actively in exercises that intended to conceptualize key ideas in class as we can see in the following excerpts from the class exercises.

### Pedro's class exercises on vocabulary ideas.

Table 4

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| Read the following concepts and define them as accurately as possible. |  |
|--|--|
| 1. Vowel sound   | It is a system to pronounce vowels, according to the NAE there are fifteen sounds. |
| 2. Consonant sound   | It is the system to pronounce consonants.  |
| 3. Phoneme   | It is the sound which is possible identify words.                                  |
| 4. Allophone   | It is about when words have the same pronunciation but different spelling.         |
| 5. Tense vowel   | It is a vowel pronounced with more force.  |
| 6. Lax vowel   | It is a vowel pronounced more relaxing.  |
| 7. Place of articulation   | It is referent about where a sound is produced.                                    |
| 8. Phonetics   | It is the system of symbols used to study the sounds and pronunciation.            |
| 9. Phonology   |  |
| 10. Manner of articulation   | It referent about the way used to produced pronunciation.                          |

Table 5

Answer the following questions. Be concise and write complete ideas.

1. What is stress?  
it is the stronger accent in a word.
2. What is the relationship between stress and derivational grammar (affixation)?  
Dependent of affixation the place of stress change there are two origins: German and Latin
3. What is stress shift in words? When does it happen?  
When the function of words is different, the place of stress change.

**Rosa's class exercises.**

Table 6

Read the following concepts and define them as accurately as possible.

1. Vowel sound
2. Consonant sound
3. Phoneme - the same word but with different pronunciation in different dialects. There is no change in the meaning of the word.
4. Allophone = the same pronunciation of different words, with different meanings.
5. Tense vowel = long sound (uː)
6. Lax vowel = short sound (ʌ)
7. Place of articulation where the sound is produced, the position of the jaw, mouth.
8. Phonetics Study of sounds and their properties, characteristics.
9. Phonology Sounds understood in environments, the grammar of phonemes.
10. Manner of articulation The way a sound is articulated.

Table 7

Answer the following questions. Be concise and write complete ideas.

1. What is stress?  
It is longer vowel duration and higher pitch.
2. What is the relationship between stress and derivational grammar (affixation)?  
Suffixes: They are unstressed when generic and stressed when form specific. Generally the affix is stressed or lightly stressed.
3. What is stress shift in words? When does it happen?  
It is different depending on the function of the word. If it is noun, verb, or an adjective.

Both Pedro's and Rosa's vocabulary activities show their levels of elaboration. In some cases they understood the concept, yet the ways of expressing their ideas were not that clear. In other cases, they tried to look for a phrase or an example to clarify their concepts in written form. Pedro and Rosa also seem to be responding to the instructions in the exercises that asked them for concise ideas, complete sentences, or accurate ideas. Usually instructional conversations tried to shape students articulation of class concepts so that their notions were clear in their own terms regardless of what either the class readings or the professor stated.

### **Final Interview on the Use of the Notebook**

This personal interview allowed students to share their own ideas on how they kept their word study notebook. The questions were oriented towards disclosing students' views on this artifact as well as its contribution in their learning processes regarding their vocabulary learning and their participation in the class activities. Students were also asked if they would use the notebook in other courses in the future.

### **How did you use the word study notebook?**

Some of the students in the course agreed that their use of the Word Study notebook was to keep track of important key concepts that appeared in both the readings and the class discussions. Some others used the notebook to prepare for their evaluations as it was the case for students such as Emma and Luisa whose comments appear here below:

Emma: I used the Word Study notebook to check concepts before reviewing for the class materials for an evaluation.

Luisa: I checked concepts, but did not study them in depth. That made a big difference between the grades from my first and second quiz.

Only one student found it useful just for the class purposes since he did not use it that much beyond the class sessions.

### **How did the word study notebook help you in the course?**

The class participants agreed that the use of Word Study notebook worked well for most of them since it helped them keep track of the course and take active part in the class activities such as the explanations and the exercises. However, the uses they gave to it varied from some class annotations as a class dictionary to a record of the class proceedings. One student recognized that the notebook replaced the actual class readings. These various ways students exploited the Word Study notebook seem to agree with Lantolf and Thorne's idea of the use of artifacts as mediated classroom activities in which individual agency is fundamental in determining the purpose and the use of the artifact itself.

I think this particular question and the students' answers may motivate further research in terms of how students conceptualize and use learning artifacts for the purposes of working in different class scenarios such as instructional conversations, class activities, and evaluations.

I consider that some sources of conflict in teaching and learning happen because of the mismatches between the mechanisms of mediation pursued by teachers and students in classrooms. Nevertheless, the teacher is responsible for finding and solving the sources of contradiction so that students have the best resources to learn the class materials.

### **In what ways did the word study notebook not help you in your learning?**

The answers to this question varied as well. For some students the notebook did not work since it did not match their learning style, or it was not enough as a source for outside practice of concepts. For instance, Pedro considered that the vocabulary was not part of their daily use of words, so it was difficult to retrieve their meanings in terms of conversational topics. Nevertheless, he added, it did help him to be prepared for the class activities. Pedro's remarks support the idea of exploring the suitability of relationships among the classroom activities intended to bring together teaching and learning.

### **Will you use the word study notebook for future courses?**

All students will use the Word Study notebook again in future courses. Nevertheless, some of them gave some answers that are worth citing because they are related to the sociocultural concept of mediation and the use of artifacts in the teaching-learning process. Some students do identify the use of the notebook beyond the here and now in order to have it as a tool for their learning. Some these answers are presented as follows:

María: I used it in other classes such as Second Language Pedagogy, English and Communication. I used it to choose important words that I consider key concepts from the readings.

Jorge: I am teaching a course at the moment. I am asking my students to keep some sort of mini-dictionary where they write new words with their transcriptions and some pictures to go with them.

María acknowledges the fact that the keeping of a Word Study notebook contributes to establishing key concepts from class readings; moreover, she seems to be using it as a learning artifact for other courses. Jorge, on the other hand, encourages his students to keep some sort of dictionary for their English classes. Each student had a different use for the Word Study notebook based on their own ideas about its advantages as a learning tool.



### Findings

Allocating specific class time and activities for exercises on vocabulary instruction helped students to pay attention to key concepts that were part of the class instructional conversations. In fact, they all could follow the instructional activities designed by the professor. Nevertheless, some students used their notebooks to write down ideas without much elaboration, so they were not really willing to engage in the actual class discussions where many of these concepts were studied beyond their mere definitions. Consequently, it is difficult to establish realistically how much they improved in their oral language proficiency for academic English. I consider that this idea of language elaboration does provoke more research in the area of students' oral abilities in content-based English. I believe researchers can pursue the crossroads of areas such as pragmatics and rhetoric for academic purposes which will be instrumental for ESL learners and scholars who would be interested in presenting their ideas in professional conferences.

The use of the Word Study notebook helped students assess their own learning in various ways. First, they admitted the notebook helped them keep track of the class progress. Second, it was clear to them that keeping their notebooks updated contributed to their class participation. Again this idea becomes very important since it supports that both the explicit exposure and constant encounters with vocabulary assure learning. Third, some students claimed the notebook was a valuable source to prepare for their evaluations. Perhaps one of the most important findings was the fact that some of the students were keeping a notebook for other classes in which they were either students or teachers. Furthermore, this idea adds to the notion of self-direction as one of the outcomes of mediation in sociocultural theory. Fourth, all students claimed the notebook became an important source to help them face the class readings and instructional activities. Moreover, all participants considered the Word Study notebook a device where they could determine some possible scenarios for learning. For some of them, it was merely vocabulary; for some others, it actually became an element they could use for other classes as a mechanism to help them learn.

### Limitations of the Study

One of the difficulties of the present study was to determine the real improvement of students' oral language proficiency due to the technical nature of the words they studied. Even though students had the chance to engage in all of the instructional conversations, the levels of participation showed the same individuals participating most of the time. Another element that may become a pitfall is the completion

of the Word Study notebook; some students might have taken it as a requirement which granted them another grade for their course individual progress. Consequently, they just updated their concepts prior to the class or the semester terms when the professor collected their notebooks for revisions.

### **Conclusions**

The study contains some findings for university professors and students who are involved in content-based instruction in tertiary education. I show that students require explicit instructional activities guided by the teacher in order to help them contextualize class concepts and articulate them. I also illustrate how students need to invest in their own ideas and time to determine artifacts that help them with their learning. The making of these artifacts demonstrates the idea of mediation operating in the learners' conscious attempts to study either words as vocabulary words or concepts in theoretical courses.

Second language vocabulary learning is still a complex task that requires careful planning and serious commitment on both teachers and students in order to see their long term benefits not only cognitively but also linguistically. This study also suggests an interesting research avenue in the way teachers and students take part in instructional conversations and the role of vocabulary in oral language proficiency in L2 academic settings.

The research findings and the conclusions of the investigations reviewed together with my own intervention suggest that L2 vocabulary development has a fundamental rather than instrumental place in L2 content-area learning. They also seem to point in the direction of specific attention and explicit treatment of vocabulary closely associated with another language skill such as reading, writing, or speaking. In all the studies vocabulary was at the heart of classroom activities which indicated that these activities needed to be part of teachers' lesson plans and instructional conversations.

The research analyses and findings also indicate areas of future research in vocabulary learning from the perspectives of pragmatics and academic English rhetoric. Another area of work in content area instruction has to do with the sources of match and/or mismatch between what both teachers and students make of their artifacts as the result of the classroom mediation.

Finally, explicit vocabulary instruction in academic settings poses several challenges for both teachers and students. On the one hand,

it is the teachers' job to find the most plausible activities to promote vocabulary learning beyond lists of words or key concepts that aid reading comprehension. On the other hand, students need to figure out the most suitable means for vocabulary use and learning.

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#### **The Author**

\* **Héctor Manuel Serna Dimas** is a doctoral candidate in Composition and TESOL at Indiana University of Pennsylvania. Professor Serna has worked in Bilingual Education in K-12 Schools and at college level for over 16 years. He has been a lecturer in English at Universidad Pontificia Bolivariana, Universidad Nacional de Colombia, Institución Universitaria Colombo Americana -ÚNICA, and more recently Universidad del Rosario where he is the Coordinator for the Center of the Study of Languages and Cultures. Professor Serna has published books and articles in teacher education and classroom practice in Journals such as Universitas Científica, Universidad Pontificia Bolivariana; IKALA, Universidad de Antioquia, and the Colombian Applied Linguistics, Universidad Distrital Francisco José de Caldas. Currently, he is working on his doctoral dissertation on bilingual literacy processes with elementary school children. Professor Serna's research interests are bilingualism, academic literacy, and teacher development. E-mail: [hectormanuel68@hotmail.com](mailto:hectormanuel68@hotmail.com)