

2019

## An Investigation of Three Approaches to Vocabulary Learning in High School Spanish Classes

Kathleen A. M. Jester  
*University of South Alabama*

Rebecca M. Giles  
*University of South Alabama*

Susan N. Ferguson  
*University of South Alabama*

Follow this and additional works at: <https://scholarworks.bgsu.edu/mwer>

[How does access to this work benefit you? Let us know!](#)

---

### Recommended Citation

Jester, Kathleen A. M.; Giles, Rebecca M.; and Ferguson, Susan N. (2019) "An Investigation of Three Approaches to Vocabulary Learning in High School Spanish Classes," *Mid-Western Educational Researcher*. Vol. 31: Iss. 4, Article 5.

Available at: <https://scholarworks.bgsu.edu/mwer/vol31/iss4/5>

This Article is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in Mid-Western Educational Researcher by an authorized editor of ScholarWorks@BGSU.

## **An Investigation of Three Approaches to Vocabulary Learning in High School Spanish Classes**

*Kathleen A. M. Jester*

*Rebecca M. Giles*

*Susan N. Ferguson*

**University of South Alabama**

*Three vocabulary learning approaches -- rote memorization; Cover, Copy, Compare (CCC); and Cover, Copy, Compare Adapted with picture (CCCA) – were examined for effectiveness in promoting long-term memory retention for productive vocabulary in foreign language learning. Pretest, posttest, and delayed posttest data were collected using Conjuguemos, an on-line Spanish program. Results indicated a significant increase in mean scores with each assessment for all treatments; however, there was no significant difference in recall among the three learning approaches. Students were also surveyed about their preferences in approaches. Although survey responses indicated a preference for CCC, most students reported abandoning use of this method after six months.*

### **Introduction**

Learning a second language is a multi-faceted process involving vocabulary, syntax, and pronunciation. “Vocabulary is a core component of language proficiency and provides much of the basis for how well learners communicate with each other” (Khoii & Sharififar, 2013, p. 99). Vocabulary knowledge can be separated into receptive knowledge and productive knowledge. Receptive knowledge, predominantly used during reading and listening, refers to the ability to recognize a word’s meaning while productive knowledge indicates the ability to create and correctly use a word during writing and speaking (Choi, 2017; Pignot-Shahov, 2012). In this study, three approaches to vocabulary learning – rote memorization; Cover, Copy, Compare (CCC); and Cover, Copy, Compare Adapted (CCCA) with picture - were analyzed and compared to determine if one was more effective in promoting long-term memory retention for productive vocabulary in high school Spanish classes.

While not a recognized strategy, rote memorization is an approach often employed to memorize vocabulary through the process of sheer repetition (Yang & Dai, 2011). Rote learning has a negative connotation for some and critics maintain that memorization does not allow for deep understanding while processing the information (Sagarra & Alba, 2006). Nonetheless it may be an essential step in the retention process (Zimmerman, 1997). Khoii and Sharififar (2013) found the use of rote memorization in a foreign language class to be as effective as concept mapping, inferring meaning from context, or looking up words in the dictionary.

Some experts in vocabulary learning promote the use of specific learning strategies instead of rote memorization. Vocabulary learning strategies may be defined as the actions taken by the learner to learn, or attempt to learn, a language; these actions may be deliberate or automatic (Griffiths, 2015). The use of learning strategies, and the degree to which they are used, seem to be the distinguishing factors between a successful and unsuccessful language learner (Cohen,

2014; Griffiths 2013). The successful learner tends to have a wider array of strategies to employ, while the unsuccessful learner tends to use the same strategy repeatedly, even if the strategy may have been proven ineffective (Barcroft, 2009; Cohen 2014; Griffiths, 2013, 2015).

It has been noted that more experienced multi-language learners have an easier time applying effective strategies in both their primary language and the target language, whereas less proficient bilinguals tend to rely heavily on the strategies in their primary language when encoding information in the target language (Marian & Fausey, 2006). Waldvogel (2013) suggests that the inexperienced language learner has not yet developed the metacognitive learning skills to evaluate their second language learning effectively, nor do they possess the vocabulary base necessary to apply strategies that use contextualization for deeper processing. Thus, although individuals may employ learning strategies in their native language, there may not be automatic transfer of those strategies when learning a second language (Bueno-Alastey & Agullo, 2015), making it necessary to teach vocabulary learning strategies in foreign language classes.

The Cover, Copy, Compare (CCC) strategy consists of three steps. First, the learner looks at a word. Second, the learner covers up the word and responds to a prompt. Finally, the learner checks his or her response by comparing the answer to the original word. If the response is correct, the learner moves on to the next word. If the response is incorrect, the learner performs a correction procedure (Skinner, Mclaughlin & Logan, 1997). Self-correction, such as writing incorrect responses, must be performed immediately after each word for maximum effect (Alber & Walshe, 2004; Morton, Heward, & Alber, 1998). Originally, CCC was used to aide with spelling and sight word rehearsal. It is, however, being increasingly applied to other subjects due to its success (Carter, Wong, & Mayton, 2013; Skinner, Mclaughlin, & Logan, 1997).

Self-evaluation is an important aspect of CCC. The teacher must refrain from correcting and allow the learner to develop the necessary self-monitoring skills to achieve self-efficacy. The teacher should also ensure that the self-correction task does not involve extensive overcorrection, which could lead to it being viewed as a punishment and, as result, create negative perceptions of the strategy (van Hell, Bosman, & Bartelings, 2003). Further, the learner should handwrite rather than type corrections, since the psychomotor action used in handwriting provides an additional context through multisensory response, thus, aiding memory (Smoker, Murphy, & Rockwell, 2009).

Cover, Copy, Compare Adapted with picture (CCCA) involves the learner creating a visual image of the word before beginning the three-step process used in CCC. Pictorial strategies use illustrations or drawings to connect students' prior knowledge of images to new words (Alqahtani, 2015). Such strategies assume that cognition uses two processing systems: verbal and nonverbal. When Paivio (2014) instructed participants to create images of words they encoded and used those images during recall, the memory performance went up significantly compared to non-cued recall. Carpenter and Olson (2012), however, found that pairing new vocabulary with pictures does not necessarily improve recall and that cued recall with pictures was not more effective than recall of verbal translations since the picture cues often promoted overconfidence. Further, according to the focal attention hypothesis (Sadoski, 2005; Samuels, 1970), when a learner is offered a picture and a printed label, the learner will concentrate only on the item that helps him produce a correct response with the least amount of effort during sight-word reading. As a result, pictures, which usually elicit a response more easily, may detract from the encoding

of the printed word. Since pictures are sensitive to such factors as culture, heritage, gender, and age, learners in this study created their own images in effort to provide more meaningful elaboration of the verbal cue to correctly name the non-verbal response (Farley, Ramonda, & Liu, 2012).

### **Purpose and Significance**

Since inexperienced foreign language learners may not possess the metacognitive skills necessary to effectively monitor and evaluate their progress, attaining an effective vocabulary learning strategy could facilitate their acquisition of a foreign language. Thus, the intentional teaching of vocabulary learning strategies may improve long term retention and prevent struggling students from abandoning their foreign language study altogether. It is also important that learners are satisfied with a particular learning strategy to ensure its continued application (Nies & Belfiore, 2006). The purpose of this study was to investigate the effectiveness of three approaches to vocabulary learning. The specific research questions were as follows:

1. To what extent does the use of rote memorization, CCC, and CCCA improve the retention of productive vocabulary in foreign language learning?
2. Which approach to vocabulary learning – rote memorization, CCC, or CCCA -- do students prefer?

### **Methodology**

A quasi-experimental design was used to investigate the relationship between vocabulary learning approach and the acquisition and retention of productive vocabulary. Quantitative data in the form of pretest, posttest, and delayed posttest scores were collected from non-randomized groups through the online program *Conjuguemos* during four phases - three treatment phases (rote memorization, CCC, CCCA) and a control phase in which no specific approach was used. A within-group design, which applies the same variations of conditions to each subject to observe the reactions, was used. Survey data regarding student preference were collected through Google Forms. The first survey polled students' opinions regarding strategy preference and was administered during the final (control) phase. The second survey inquired as to the continued use of the three vocabulary learning strategies introduced during the study and was administered six months after completion of the final phase.

### **Participants**

The participants ( $n = 121$ ) were mostly Caucasian students from a semi-rural K-12 school in the Southeastern United States enrolled in five high school Spanish classes--three beginning-level classes (Spanish 1) and two second-level classes (Spanish 2). All five classes had the same teacher, and all students participated in each of the four phases (rote memorization, CCC, CCCA, and control). In Spanish 1, there were 85 participants (mostly tenth graders): 36 males and 49 females, 6 non-honors and 79 honors students. In Spanish 2 (all eleventh graders), there were 36 participants: 14 males and 22 females, 4 non-honors and 32 honors students. When questioned about Spanish proficiency, all participants self-identified as having only beginner level skills. In Spanish 2, all students reported having one year of previous Spanish instruction at the high school level.

### Teaching and Learning Materials

The textbook for Spanish 1 was *¡Buen viaje!*, Level 1 (2007), and the textbook for Spanish 2 was *¡Buen viaje!*, Level 2 (2005). One chapter from each *¡Buen viaje!* text was covered during each of the four phases of the study. Spanish 1 classes used Chapters 3, 4, 5, and 6 of the Level 1 text. Spanish 2 classes used Chapters 2, 3, 4, and 5 of the Level 2 text. The study was delayed until Chapter 3 in Spanish 1 to avoid familiarity with beginner vocabulary (such as colors and numbers) presented in the first two chapters. In Spanish 2, the study began with Chapter 2 because Chapter 13 in the Level 1 text is identical to Chapter 1 in the Level 2 text. Beginning with Chapter 2 avoided recall of previously learned material.

A list of 35 pre-selected words consisting primarily of concrete nouns, adjectives, and verbs was used for each chapter. The vocabulary sheets copied and distributed to students during the rote memorization and CCC phase were provided by the publisher to accompany the course texts. The vocabulary sheets used during the CCCA were developed by the teacher-researcher as a Microsoft Word document that provided 35 sets of words with the Spanish word on top of an empty box and the English word on the bottom. Students were to draw their own pictures representing the words inside the boxes (see Appendix A).

### Procedures

The in-class application of the approaches occurred over ten consecutive weeks. Each strategy was examined for thirteen school days. The first two days were used for vocabulary introduction and pretest. Then, a ten-day practice period followed for the application of the specific approach. On day 13, the posttest was administered. In addition, a delayed posttest using identical administration procedures was given approximately thirteen days after completion of each phase to measure retention of vocabulary words.

For the rote memorization phase, students were given a vocabulary handout for Chapter 3 (Spanish 1) or Chapter 2 (Spanish 2) to study for five minutes at the beginning of class daily. At the end of each class, they took an on-line quiz that provided feedback upon completion of the quiz. For the CCC phase, students were given a vocabulary handout for Chapter 4 (Spanish 1) or Chapter 3 (Spanish 2) to study for five minutes at the beginning of class daily. At the end of each class, they completed an on-line practice activity that provided immediate feedback for each response, and students performed self-correction in the form of writing each word missed three times. For the CCCA phase, students were given a vocabulary handout at the start of the chapter, on which they drew a picture depicting each word for Chapter 5 (Spanish 1) or Chapter 4 (Spanish 2), and the paper was returned for their use each day. Students studied vocabulary with their pictures for five minutes at the beginning of class daily. At the end of each class, they completed an on-line practice activity that provided immediate feedback for each response and students performed self-correction in the form of writing each word missed three times. For the control phase, time for learning vocabulary from Chapter 6 (Spanish 1) or Chapter 5 (Spanish 2) was limited to the initial five minutes at the start of class with no instruction to use a specific strategy.

The survey on strategy preference for vocabulary learning approaches was administered during the final phase (control) after students had used all three approaches. A follow-up survey was administered six months after the completion of the final phase to investigate the continued use

of the vocabulary learning strategies. Both surveys were conducted through Google Forms and electronically distributed to the students through their school email accounts. For the first survey, students responded to seven yes or no questions regarding their opinions of all three approaches. Table 1 presents the survey questions adapted from a questionnaire by Nies and Belfiore (2006).

Table 1

*Student Preference Survey*

- 
1. Learning vocabulary words worked best for me with rote memorization? CCC? CCCA? (*drop down boxes with Yes/No option for each vocabulary learning approach*).
  2. I think I learned more when I corrected my mistakes by immediately writing the words missed.
  3. I think I learned more when I drew pictures of my words.
  4. It takes too long to learn my vocabulary words using the cover, copy, compare strategy.
  5. I am a better speller when I use the cover, copy, compare strategy.
  6. I would like to try the cover, copy, compare strategy to learn other materials in school.
  7. Did you find your drawings helpful in the memorizing of the vocabulary words?
- 

The second survey (see Table 2) asked about students' continued use of the vocabulary learning approaches introduced during the treatment portion of the study, which was completed six months earlier.

Table 2

*Follow-up Survey on Student Strategy Use*

- 
1. Do you still use any of the vocabulary learning strategies (rote memorization; CCC; CCA) that you learned during semester 1 on your own? (*drop down boxes with Yes/No option for each*).
  2. Do you use any other strategies, such as flashcards, quizlet, drilling w/other person, etc.?
- 

### **Data Collection and Analysis**

Data was collected through Conjuguemos, which is an on-line program produced by Alejandro Yergos that promotes the learning of vocabulary, grammar, and listening skills by using flashcards, interactive games, and quizzes in six languages. The program was used to administer the assessment of vocabulary knowledge and retention (pretest, posttest, and delayed posttest) throughout all four phases of the study and to practice vocabulary with each of the three approaches. The program allows vocabulary practice in different modes. The quiz mode was used for the rote memorization phase. Students were provided with a teacher-created quiz that was graded upon submission. The quiz showed the English word and students supplied the word in Spanish. The English words were given to every student in the same order. The program measured the number of correct student responses and kept a record for the teacher to review. In quiz mode, students could see the correct response for each word and were given a total number correct after completing the quiz.

In the CCC and CCCA phases, students practiced vocabulary using the guided practice mode in Conjuguemos program. In guided practice mode, the program provided the students with a word in English and they supplied the word in Spanish. This mode gave instant feedback on whether the response was correct or not after each entry and provided the correct answer in case of an incorrect entry. This gave an opportunity for self-correction. In guided practice mode, words were randomized.

This software was chosen over manual grading to ensure grading consistency among participants. The program also provided a record of missed words for each student. This feature allowed the worksheets used to rehearse incorrect entries during the CCC and CCCA phases to be collected daily and compared with the data stored by Conjuguemos to ensure that students were self-correcting as instructed. Although the program used students' names, data was transferred to an Excel file where all identifiers were deleted.

The surveys on strategy preference and continued use were distributed through the students' school email accounts and completed during class. The survey data was collected without identifying information other than Spanish level on the follow-up survey.

Upon completion of the data collection through Conjuguemos, paired-samples *t*-tests were conducted to examine growth within a phase for both Spanish level classes combined. An ANOVA was then conducted individually on data from each Spanish level to examine differences in growth between the four study phases. An ANOVA was also conducted on the delayed posttest data to examine retention of vocabulary from each phase for both Spanish levels combined.

## Results

### Growth and Retention

Paired-samples *t* tests were first conducted to evaluate the mean difference in scores from the pretest to the posttest for each of the four approaches in both Spanish level classes combined. The average growth and the *t*-test results are presented in Table 3. In all four phases, there was a statistically significant increase in scores from pretest to the posttest given after 13 days of instruction. This shows that each strategy was successful in increasing vocabulary knowledge, at least in the short term.

Table 3  
*Growth Between Pretest and Posttest by Approach for All Spanish Classes Combined*

	<i>M</i>	<i>SD</i>	<i>95% CI of Mean Difference</i>	<i>t</i>	<i>df</i>	<i>p</i>
Rote Memorization	25.30	5.70	26.37, 24.24	47.02	111	<.000
CCC	24.73	4.80	25.94, 23.51	40.58	61	<.000
CCCA	27.35	6.07	29.15, 25.55	30.55	45	<.000
Control	5.22	6.96	6.58, 3.87	7.65	103	<.000

An ANOVA was then conducted to evaluate whether or not there were significant differences in the amount of growth among the four approaches for the two levels of Spanish individually. For

both levels of Spanish, results indicated a significant difference in the average amount of growth among the four study phases. ANOVA results are in Table 4.

Table 4  
*ANOVA Results on Mean Growth by Study Phase*

	Mean Increase in Scores from Pretest to Posttest				ANOVA
	Rote Memorization	CCC	CCCA	Control	
Spanish 1	25.11	23.82	28.87	2.06	$F(3, 223) = 269.23, p < .00$
Spanish 2	25.48	26.69	24.65	9.03	$F(3, 93) = 2153.44, p < .00$

A Tukey post hoc test revealed that for Spanish 1, rote memorization and CCC both resulted in significantly less growth than CCCA, but they were not significantly different from each other. All three vocabulary learning strategies showed significantly more growth than the control phase. For the Spanish 2 course, again, all three vocabulary learning strategies showed significantly more growth than the control phase; however, at this level, there were no significant differences in growth among the strategies. Descriptive statistics by approach and Spanish level are presented in Table 5

Table 5  
*Descriptive Statistics by Approach and Spanish Level*

	Pretest			Posttest		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Memorization	5.07	2.85	112	30.38	5.90	120
Spanish 1	4.46	2.31	76	29.57	6.48	83
Spanish 2	6.36	3.43	36	31.84	3.30	37
CCC	4.89	3.85	64	29.61	3.73	78
Spanish 1	5.47	3.98	51	29.29	3.87	56
Spanish 2	2.08	1.26	13	28.77	6.41	22
CCCA	4.15	3.85	55	31.50	4.44	52
Spanish 1	3.91	5.04	33	32.78	3.90	32
Spanish 2	3.95	3.83	22	28.60	4.73	20
Control	8.06	5.56	108	13.28	7.64	113
Spanish 1	8.79	5.73	77	11.79	7.79	78
Spanish 2	6.91	5.42	31	15.74	6.77	35

Lastly, retention was examined by comparing growth from the pretest to a delayed posttest administered 13 days after the completion of each phase following the same procedures as the immediate posttest. Results of an ANOVA on both Spanish levels combined indicated a significant difference in retention between the control phase and each of the vocabulary learning strategies,  $F(3, 333) = 35.66, p < .001$ . Since group sizes were unequal, the harmonic mean of the group sizes was used. Among the three strategies, differences in retention were not evident.



### Preferences and Use of Vocabulary Learning Approaches

Immediately following the completion of the four study phases, an online survey regarding students' preferences on vocabulary learning approaches was taken by 114 students. This was a voluntary survey, and no distinction was made between the two levels of Spanish. Results indicated a preference for CCC over the other approaches. The majority noted they were better spellers with the approach and they would consider using it in other subject areas. This approach received the highest percent of students who responded positively that the approach worked best for them and they would continue using it; however, less than half of the students responded this way (see Table 6).

Table 6  
*Results of Student Survey on Strategy Preference*

CCC		
CCC worked best for me.	40%	60%
I will continue using CCC.	44%	56%
I think I learned more when I corrected my mistakes by immediately writing the words missed.	83%	17%
I am a better speller when I use the CCC strategy.	70%	30%
I would like to try the CCC strategy to learn other materials in school.	62%	28%
It takes too long to learn my vocabulary words using the CCC strategy.	33%	67%
Rote Memorization		
Memorization worked best for me.	31%	69%
I will continue using memorization.	26%	74%
CCCA		
CCCA worked best for me.	29%	71%
I will continue using CCCA.	26%	74%
Did you find your drawings helpful in memorizing the vocabulary words?	46%	54%
I think I learned more when I drew picture of my words.	35%	65%

Six months later, 120 students (Spanish 1 = 81 and Spanish 2 = 39) responded to the follow-up survey (see Table 6). Despite a good portion of students having previously responded positively

about CCC, less than a fifth reported still using that approach six months later. Results indicated that memorization was the most common strategy still used followed by CCC.

Table 6

*Results of Six-Month Follow-Up Survey on Continued Use of Vocabulary Learning Strategies*

	Yes	No
Do you still use any of the vocabulary learning strategies that you learned during semester 1?		
Memorization	33%	69%
CCC	18%	82%
CCCA	8%	92%
Do you use any other strategies?		
Flashcards/quizlet	37%	63%
Drilling with someone	8%	92%

### Summary

Results revealed statistically significant score increases on a posttest immediately follow a vocabulary unit with the application of all three vocabulary approaches -- rote memorization, CCC, and CCCA. The gains were much more than the control phase in which no approach was promoted. Thus, results support the use of a vocabulary learning approach to increase learning productive vocabulary in foreign language learning. Examining longer term retention also revealed the benefits of using a vocabulary learning approach. Retention was significantly greater for the units that employed a learning approach than for the control unit; however the retention was similar among the three approached.

While Waltvogel (2013) postulates that many foreign language teachers are not sufficiently familiar with the instruction of vocabulary learning strategies or their application at different proficiency levels to assist students in applying them, results suggest that rote memorization was as beneficial for the acquisition and retention of vocabulary as the application of the CCC and CCCA strategies. It appears that time for independent vocabulary learning should occur during foreign language class whether or not a specific strategy is used. Since providing time daily for vocabulary learning is not dependent upon teachers' familiarity with the instruction of vocabulary learning strategies, it is an apparently beneficial practice that can be easily implemented across foreign language classrooms.

The CCC strategy yielded a lower mean increase for Spanish 1 than CCCA. Perhaps, a learning curve to the new strategy was the cause. Students would have had more practice with the strategy in the CCCA phase, which was an adapted version of CCC that included drawing a picture of the vocabulary term. Ahmed (1989) determined that less successful learners tend to struggle with vocabulary learning strategies and often apply them inadequately. Students who fail in their initial attempt to learn vocabulary words will lose confidence and give up. According to Ji (1997), a learner's attitude greatly affects language learning. As such, most unsuccessful learners in Spanish 1 do not continue their language study into Spanish 2. While beginner level students have reported favoring strategies that focus on vocabulary and memorization (Griffiths, 2003), CCC may be an effective strategy for foreign language learners in their second year and beyond,

particularly since survey responses revealed that students prefer the CCC strategy over rote memorization and CCCA.

### **Limitations**

There are several limitations that should be acknowledged. First, a convenience sample of mostly honor students was used in this study, thus, limiting the generalizability of findings. Honors students may have reached their academic level by already having learning strategies to employ. Second, the number of participants greatly varied among vocabulary approaches for the delayed retention tests. Sample sizes decreased due to illness and conflicting school functions, which potentially limited power and the interpretation of results. Third, Conjuguemos is designed for computer use but was used on cell phones in this study due to large class sizes. The cell phones' touch screens caused initial issues with accent marks. Incorrect use of accents were marked wrong in the programs quiz mode. Finally, the strategy preference survey instruments were limited by a reliance on self-reported data (Sallis & Saelens, 2000). Participants' tendency to present a favorable image of themselves, known as socially desirable reporting, could also obscure the relationships between variables (van de Mortel, 2008).

### **Conclusion**

When learning a foreign language, building a basic vocabulary should be done deliberately and quickly to establish a realistic level of competence and, hopefully, contribute to further study. The results of this study show that devoting class time to learning vocabulary, regardless of approach, is essential to promoting the learning of productive vocabulary in foreign language learning. For Spanish 1 and Spanish 2 students, who are both considered beginning level learners, memorization strategies seem to be best suited. Perhaps, making the students write both the English and Spanish words during self-correction when using the CCC strategy would increase knowledge of the word's meaning rather than simply aiding its recognition and recall of correct spelling. A focus on teaching how, when, and why certain approaches should be applied may increase both the knowledge of meaning and spelling of new words for beginning foreign language learners. Regardless of the approach employed, however, the daily application of a vocabulary approach during class made a significant impact in both acquisition and retention.

Unfortunately, student feedback indicated that the continued use of vocabulary learning approaches outside of class did not occur. Novice language learners are either not aware of their necessity or lack the motivation to invest in the time and effort for the correct and persistent application of vocabulary learning approaches. Therefore, integration of a suitable strategy in the classroom is vital for more effective vocabulary learning in foreign language classes. Teachers and learners should supplement the use of memory strategies with integrated context to achieve knowledge of all aspects of language learning.

**Author Notes**

**Kathleen A. M. Jester** teaches Foreign Language at Faith Academy in Mobile, AL. She completed this study in partial fulfillment of the requirements for an Education Specialist degree in Teacher Leadership at the University of South Alabama.

**Rebecca M. Giles** is Professor of Elementary and Early Childhood Education at the University of South Alabama.

**Susan N. Ferguson** is an Associate Professor and Program Coordinator for Secondary Education at the University of South Alabama.

Correspondence concerning this article should be addressed to Rebecca M. Giles at [rgiles@southalabama.edu](mailto:rgiles@southalabama.edu).

### References

- Ahmed, M. (1989). Vocabulary learning strategies. In P. Meara (Ed.), *British studies in applied Linguistics: Vol 4. Beyond words* (3-14). London: British Association of Applied Linguistics/Center for Language Teaching.
- Alber, S. R., & Walshe, S. E. (2004). When to self-correct spelling words: A systematic replication. *Journal of Behavioral Education, 13*(1), 51-66.
- Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education, 3*(3), 21-34.
- Barcroft, J. (2009). Strategies and performance in intentional L2 vocabulary learning. *Language Awareness, 18*(1), 74-89. doi: 10.1080/09658410802557535
- ¡Buen viaje!* Glencoe Spanish 1. (2007). NY: Glencoe/McGraw-Hill.
- ¡Buen viaje!* Glencoe Spanish 2. (2005). NY: Glencoe/McGraw-Hill.
- Bueno-Alastuey, M., & Agullo, G. (2015). Explicit instructions and implicit use of L2 learning strategies in higher secondary EFL course books. *International Journal of English Studies, 15*(2), 17-39.
- Carpenter, S. K., & Olson, K. M. (2012). Are pictures good for learning new vocabulary in a foreign language? Only if you think they are not. *Journal of Experimental Psychology: Learning, Memory and Cognition, 38*(1), 92-101. doi:10.1037/a0024828
- Carter, S. L., Wong, C.-Y., & Mayton, M. R. (2013). Enhancing foreign language competency using the cover, copy, compare strategy: An exploratory evaluation. *Education and Treatment of Children, 36*(2), 105-116. doi:10.1353/etc.2013.0010
- Choi, Y. H. (2017). Roles of receptive and productive vocabulary knowledge in L2 writing through the mediation of L2 reading ability. *English Teaching, 72*(1) doi:10.15858/engtea.72.1.201703.3
- Cohen, A. D. (2014). *Strategies in learning and using a second language*. Abingdon, England: Routledge
- Farley, A. P., Ramonda, K., & Liu, X. (2012). The concreteness effect and the bilingual lexicon: The impact of visual stimuli attachment on meaning recall of abstract L2 words. *Language Teaching Research, 16*(4), 449-466. doi:10.1177/1362168812436910
- Griffiths, C. (2015). What have we learnt from 'good language learners'? *ELT Journal, 69*(4), 425-433. doi:10.1093/elt/ccv040
- Griffiths, C. (2013). *The strategy factor in successful language learning*. Bristol: Multilingual Matters.
- Ji, K. (1997). A study of factors that influence foreign language learning and some possible solutions. *ERIC, EBSCOhost*. Retrieved April 22, 2018.

- Khoii, R. & Sharififar, S. (2013). Memorization versus semantic mapping in L2 vocabulary acquisition. *ELT Journal*, 67(2), 199-209. doi:10.1093/elt/ccs101
- Marian, V. & Fausey, C. M. (2006). Language-dependent memory in bilingual learning. *Applied Cognitive Psychology*, 20(8), 1025-1047. doi:10.1002/acp.1242
- Medina, B. L. (2010). L2 skills and the use of compensation strategies: The case of adult learners. *Encuentro*, 19, 45-51.
- Morton, W. L., Heward, W. L., & Alber, S. R. (1998). When to self-correct?: A comparison of two procedures on spelling performance. *Journal of Behavioral Education*, 8(3), 321-335.
- Nies, K. A., & Belfiore, P. J. (2006). Enhancing spelling performance in students with learning disabilities. *Journal of Behavioral Education*, 15(3), 163-170. doi:10.1007/s10864-006-9017-7
- Paivio, A. (2014) Bilingual dual coding theory and memory. In Heredia R., Altarriba J. (Eds.) *Foundations of Bilingual Memory* (pp. 41-62). Springer, New York, NY. doi:10.1007/978-1-4614-9218-4\_3
- Pignot-Shavov, V. (2012). Measuring L2 receptive and productive vocabulary knowledge. *Language Studies Working Papers*, 4, 37-45.
- Sadoski, M. (2005). A dual coding view of vocabulary learning. *Reading and Writing Quarterly*, 21(3), 221-238. doi:10.1080/10573560590949359
- Sagarra, N., & Alba, M. (2006). The key is in the keyword: L2 vocabulary learning methods with beginning learners of Spanish. *The Modern Language Journal*, 90(2), 228-243. doi:10.1111/j.1540-4781.2006.00394.x
- Sallis, J. F., & Saelens, B. E. (2000). Assessment of physical activity by self-report: Status, limitations, and future directions. *Research Quarterly for Exercise and Sport*, 71(2), 1-14.
- Samuels, S. J. (1970). Effects of pictures on learning to read, comprehension and attitudes. *Review of Educational Research*, 40, 397-407. doi: <https://doi.org/10.3102/00346543040003397>
- Skinner, C. H., McLaughlin, T. F., & Logan, P. (1997). Cover, copy and compare: A self-managed academic intervention effective across skills, students, and settings. *Journal of Behavioral Education*, 7(3), 295-306.
- Smoker, T., Murphy, C., & Rockwell, A. (2009). Comparing memory for handwriting versus typing. *Sage Journals*, 53(22), 1744-1747. doi.org/10.1177/154193120900502218
- van de Mortel, T. F. (2008). Faking it: Social desirability response bias in self-report research. *The Australian Journal of Nursing*, 25(4), 40-48.

- van Hell, J. G., Bosman, A. M., & Bartelings, M. C. (2003). Visual dictation improves the spelling performance of three groups of Dutch students with spelling disabilities. *Learning Disabilities Quarterly, 26*(2), 239-255.
- Waldvogel, D. A. (2013). The relationship between vocabulary learning strategies and vocabulary size among adult Spanish foreign language learners. *Journal of Language Teaching and Research, 4*(2), 209-219. doi:10-4304/jltr.4.2.209-2019
- Yang, W., & Dai, W. (2011). Rote memorization of vocabulary and vocabulary development. *English Language Teaching, 4*(4), 61-64. doi:10.5539/elt.v4n4p61
- Zimmerman, C. (1997). Historical trends in second language vocabulary instruction. In J. Coady, & T. Huckin (Eds.), *A Rationale for Pedagogy* (pp. 5-19). Cambridge: Cambridge Press.

## APPENDIX

## Worksheet used during CCCA – Spanish 1

apples	bag	bananas	bill	can	carrot
<b>las manzanas</b>	<b>la bolsa</b>	<b>los plátanos</b>	<b>la cuenta</b>	<b>el bote, la lata</b>	<b>la zanahoria</b>
chicken	chocolate ice cream	dessert	egg	fish	free
<b>el pollo</b>	<b>el helado de chocolate</b>	<b>el postre</b>	<b>el huevo</b>	<b>el pescado</b>	<b>libre</b>
frozen	iced tea	lettuce	market	meat	milk
<b>congelado</b>	<b>el té helado</b>	<b>la lechuga</b>	<b>el Mercado</b>	<b>la carne</b>	<b>la leche</b>
oranges	peas	potato	rice	shellfish	sweet roll
<b>las naranjas</b>	<b>los guisantes</b>	<b>la papa</b>	<b>el arroz</b>	<b>los mariscos</b>	<b>el pan dulce</b>
table	to drink	to eat	to learn	to live	to read
<b>la mesa</b>	<b>beber</b>	<b>comer</b>	<b>aprender</b>	<b>vivir</b>	<b>leer</b>
to see	to sell	to understand	toast	waiter	
<b>ver</b>	<b>vender</b>	<b>comprender</b>	<b>el pan tostado</b>	<b>el mesero, el camarero</b>	BV1C5



## Worksheet used during CCCA – Spanish 2

shoe store	wrist	pocket	jacket	coat	raincoat
<b>la zapatería</b>	<b>la muñeca</b>	<b>el bolsillo</b>	<b>el saco, la chaqueta</b>	<b>el abrigo</b>	<b>el impermeable, la gabardina</b>
Long-sleeved	dress	belt	handkerchief	scarf	buttons
<b>mangas largas</b>	<b>el vestido</b>	<b>el cinturón</b>	<b>el pañuelo</b>	<b>la bufanda</b>	<b>los botones</b>
sandals	boots	heel	jewels	ring	earring
<b>las sandalias</b>	<b>las botas</b>	<b>el tacón</b>	<b>las joyas</b>	<b>el anillo</b>	<b>el arete, el pendiente</b>
watch	neck	finger	stand, market stall	bakery	butcher shop
<b>el reloj</b>	<b>el cuello</b>	<b>el dedo</b>	<b>el puesto</b>	<b>la panadería</b>	<b>la carnicería</b>
fish market	pastry shop	green grocery	fruit store	bread	pastries
<b>la pescadería</b>	<b>la pastelería</b>	<b>la verdulería</b>	<b>la frutería</b>	<b>el pan</b>	<b>los pasteles</b>
fresh	plastic bag	slice	jar	can	
<b>fresco</b>	<b>la bolsa de plástico</b>	<b>la tajada, la rebanada</b>	<b>el frasco</b>	<b>la lata</b>	BV2C4