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EFFECTS OF DIRECT INSTRUCTION AND CORRECTIVE FEEDBACK ON SECOND LANGUAGE ACQUISITION

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ABSTRACT

This study compared the effectiveness of differing instructional approaches used within two units of study in Spanish classes at a suburban middle school. The purpose of this quantitative, pre-experimental study was to determine if direct instruction in grammar and vocabulary combined with a variety of corrective feedback types would facilitate higher levels of second language acquisition than an instructional approach that concentrated on student activity and task performance. The theoretical base of the present study focused on associative-cognitive second language theories and hypotheses that explained how second language learning occurs. The purposive convenience sample was comprised of 86 students aged 12 to 14 years enrolled in beginning-level Spanish classes. The assessment scores of the students after being exposed to the direct instructional approach were compared with the assessment scores of the students after being exposed to the student-centered instructional approach. Dependent-samples t tests were used to assess differences from pretest to posttest data collections, and to assess differences between the two posttest data collections. The analysis revealed a statistically significant result in favor of the direct instructional approach ($t(85)$, $p = .000$, $r = .01$). The findings led to a recommendation for further study with participants of more advanced language proficiencies. The results advise instructional practices that increase students' opportunities to develop higher levels of second language acquisition.

Introduction

In the past century, second language instruction has undergone several transitions. Richards and Rodgers (2001) explained that changes in language instruction and goals of language study have reflected the changes in the kind of proficiency learners need, as well as the changes in second language theories. According to Brown (2007), some researchers take the view that the field of second language acquisition is in its infancy, and is a developing discipline. Brown, Doughty, and Long (2003), and VanPatten and Williams (2007) recognized that there has been increased interest in second language acquisition by cognitive experts, who began to understand that language was a demonstration of cognitive ability. VanPatten and Williams explained that the associative-cognitive perspective is that second language acquisition occurs as does other human learning, through associative learning (often termed behaviorist), and through cognitive learning characterized by “conscious, explicit, deductive, or tutored processes” (p. 77). Further, functional levels of meaning are formed through social interaction (Brown, 2007; VanPatten & Williams, 2007). Thus, second language acquisition is a dynamic process in which the brain recognizes regularities and structures through interaction with others, through its own consciousness, and in using language to meet social and cultural needs.

Brown (2007) and Richards and Rodgers (2001) explained that as schools of thought in education have changed, language teaching trends have been influenced. Both Brown and Richards and Rodgers noted that there remain different approaches to second language instruction. For example, some course curriculums are focused on predetermined grammar, vocabulary, and pronunciation, whereas other course curriculums are designated completely for grammar focus. Brown viewed the greatest challenge of second language teachers as preparing students to move from knowledge about the language to authentic use of the language, and explained that there is no one method that is guaranteed to ensure success. Brown further elaborated that “the second language teacher, with eyes wide open to the total

picture, needs to form an integrated understanding of the many aspects of the process of second language learning” (p. 5). The purpose of this quantitative, pre-experimental study was to determine if direct instruction in grammar and vocabulary combined with a variety of corrective feedback types would facilitate higher levels of second language acquisition at the novice level than an instructional approach that concentrated on student activity and task performance.

Literature Review

Toward the end of the 20th century and the beginning of the 21st century, numerous second language studies were conducted to determine the effectiveness of direct instruction and several types of corrective feedback. Many of the studies that employed pretest/posttest designs provided evidence that direct instruction and corrective feedback facilitates second language acquisition (Ayoun, 2001; Dekhinet, 2008; Dodigovic, 2007; Lyster & Izquierdo, 2009; Nassaji, 2009). Several researchers (Brown, 2007; Doughty, 1991; Ishida, 2004; Lyster & Izquierdo, 2009; Sheen, 2008) highlighted the correlation between a learner’s noticing of language features and the internalization of the second language input. Swain (1985) hypothesized that a learner’s reformulation of their utterances after being pushed to be precise was beneficial to their second language development. Conversely, there were language researchers who contended that direct instruction is of little use to the second language learner. Krashen (2003) expounded that if a learner is provided with sufficient comprehensible input, then second language acquisition is likely to occur. Brown (2007) held that in the second language profession, task-based instruction has recently emerged in teaching practice worldwide. Brown further explained that task-based learning is an approach that teachers use to prepare learners with the communicative language needed to perform in situations that may occur in the world outside of the classroom.

The present study investigated the effect of direct instruction and corrective feedback when compared with student activity and

productive language use. The review of related research focused on three themes: (a) the usefulness of grammar instruction in affecting second language acquisition, (b) the usefulness of corrective feedback in affecting second language acquisition, and (c) how task involvement enhances second language acquisition. The research was compiled from recent book publications, journal publications, and by searching online databases for the most pertinent studies. The findings from the literature review aided in the formulation of the study design. This section will review some exemplary studies that explore the differing views.

Direct Instruction

Gibbons (2002) and Long (2007) conveyed that there are disagreements among second language researchers concerning the usefulness of direct instruction in grammar. However, Zhou's (2009) study with 15 university-level ESL learners (p. 36) exposed the learners' apprehensions about grammar, vocabulary, and mechanics. The learners desired more support through direct grammar instruction and direct vocabulary instruction, and they preferred more explicit rather than less explicit instruction. In a similar survey-type study, Sang-Keun (2008) also investigated second language students' views on the usefulness of error correction in writing with Korean second language learners at the university graduate level who were writing for their academic classes (p. 359). According to Sang-Keun, writing research findings suggest teachers' comments on early drafts should focus on ideas and organization, while feedback on later drafts should focus on grammar and word usage. Sang-Keun found through interviews that the students preferred more direct and specific comments related to grammatical errors even on early drafts, and thus concluded that some of the widely accepted second language research findings do not necessarily apply to students with lower second language competencies. Brown (2009) conducted a study to identify and compare teacher and student perceptions of effective instruction. Findings revealed that the students desired a grammar-based approach, while the teachers preferred to employ communicative approaches.

From the three studies it can be determined that teachers' views and students' views on the most effective methods of instruction do not align. The inconsistencies between teacher and student opinions highlight the need for further research regarding the usefulness of direct instruction.

Some quantitative studies produced results that favored direct instruction. A thorough investigation was conducted by Doughty (1991) with 20 international students who had little knowledge of English as a second language studying at a language institute in Philadelphia (p. 441). The purpose of the study was to determine if a group provided with meaning-oriented instruction and a group provided with rule-oriented instruction would perform better on language feature acquisition posttests than did an exposure-only control group. Both instructed groups demonstrated significant positive effects, while the non-instructed group showed small gains. Further, more explicit and redundant instruction produced a stronger effect on comprehension. The study highlighted the importance of focusing learners' attention on the language target to be acquired, and that it is not necessary for learners to comprehend all of the semantic content of the input in order for grammatical structures to be acquired. Carduner (2007) provided additional evidence over the course of several years through examination of a university-level Spanish grammar and composition course. The instruction was comprised of traditional exercises, practice using knowledge of rules, practice proofreading texts not written by the learner, practice editing one's own writing, and formative data tracking. Carduner upheld that when proofreading, grammar instruction, and corrective feedback were merged, student writing errors reduced and content and form improved. End-of-semester assessments established the effectiveness of explicit instruction, grammar instruction, and teacher feedback. Concurring, Pellicer-Sánchez, and Schmitt (2010) conducted a study with 20 university-level second language learners who had studied English for about 10 years (pp. 36-37). The researchers determined that learning occurred from reading an authentic novel, but did not equal the levels of learning that could be attained through explicit

instruction. In the three studies highlighted here, direct instruction was found more effective than exposure-only instruction.

However, other researchers provided different results when examining implicit learning. Rodrigo, Krashen, and Gribbons (2004) conducted a study to evaluate three instructional reading methods. The participants were 33 adult beginning second language students (p. 53). The reading only and reading with discussion groups did significantly better on vocabulary and grammar posttests than the participants in the traditional instruction group. Horst (2005) conducted a study with the objective to test a new method to determine how much growth in vocabulary takes place as a result of extensive second language reading. The participants were adult English learners at a community center in Canada (p. 366). Reading of books and graded readers at varying levels of difficulty was offered in addition to the regular three-hour, twice-weekly lessons. The pretest and posttest results revealed a strong connection between extensive reading and increased vocabulary knowledge. It is unclear how the direct instruction provided in the regular sessions may have influenced the results, and if the results could be attributed solely to student activity. The two studies highlighted that second language development can occur through student activity and productive tasks in the absence of direct instruction, and adds fuel to the debate on the usefulness of direct instruction.

Corrective Feedback

Since the 1990s the research and interest in the area of corrective feedback has grown substantially (Brown, 2007; Lyster & Izquierdo, 2009; Long, 2007; Nassaji, 2009; Sheen, 2004). Brown (2007) documented several types of feedback that included prompts, recasts, elicitations, clarification requests, and explicit correction as the most commonly used. The findings of Ammar's (2008) study of 64 primary school 6th grade ESL students enrolled in an English as a Second Language class in Montreal (p. 189) delivered evidence that learners provided with prompts and recasts made more improvement

than those provided no feedback, and prompts were found more effective than recasts. Lyster and Izquierdo (2009) conducted a feedback study with 25 undergraduate students enrolled in French at a university in Quebec (p. 466). Both feedback groups made significant gains after the treatments, with the recasts group outperforming the prompts group. Lyster and Izquierdo credited the salience of the recasts with allowing learners to more easily parallel the recasts to their own utterances. Nassaji (2009) examined the effects of feedback with 42 adult intermediate learners of English as a second language in attendance at a Canadian university (p. 425). Nassaji concluded that recasts were overall the most effective feedback type, and that explicit forms of feedback were more operative in both recasts and elicitations with a stronger effect of explicitness for recasts. Thus, a variety of corrective feedback types were found effective in the three studies reviewed here.

The use of technology has become commonplace in schools around the world. Ayoun (2001) conducted a study using three instructional approaches: implicit feedback through computerized written recasts, models, and grammar instruction. The participants were adult learners with much second language experience, either English native speakers or English-Spanish bilinguals. The posttest results revealed that the recasts group improved the most, followed by the models group. Dodigovic (2007) also conducted a study of computer-assisted error correction in the writing process. The participants were adult university students in several countries. An artificial intelligence program was used by the students for several months. Dodigovic reported an 83% reduction in writing errors at the completion of the study. In another study, Dekhinet (2008) conducted a case study to investigate online corrective feedback. The participants included 10 nonnative university students learning English and 10 native speakers (p. 414). The nonnative speakers responded to corrective feedback more than 93% of the time (p. 419). The results of the three studies provided evidence that computerized corrective feedback benefits second language learners. Corrective feedback does not have to be provided orally to aid in second language acquisition.

Some researchers (Brown, 2007; Long 2007; Swain, 1985) have noted the potential advantages of providing corrective feedback to second language learners. However, Lyddon (2011) contended that the issue needed closer examination. The participants in the Lyddon study were 136 adult English-speaking students in second-semester beginning French at a public university (p. 107). Four treatment conditions were explored: meaning-focused, implicit form-focused, explicit form-focused and metalinguistic explicit form-focused. No statistically significant differences were discovered between the treatments. Therefore, the researcher saw no benefit for corrective feedback or language explanation. Adams, Nuevo, and Egi (2011) also conducted a study to examine the effectiveness explicit and implicit feedback, and in this case interactions between learners were studied. The participants were 71 adult learners at an ELS school in the United States (p. 48). Based on the posttest results, the researchers determined that the effects of corrective feedback were dependent on individual learner characteristics. Although the researchers did find some evidence that some types of corrective feedback and learner responses were helpful in some instances, the overall finding was that learner-learner interactions were of little benefit. The researchers suggested that corrective feedback provided by a native speaker to learners may be found more effective. The Adams, Nuevo, and Egi (2011) and the Lyddon (2011) studies counter the findings of the previously referenced corrective feedback studies, and draw attention to the need for further study to determine the effectiveness of corrective feedback in a variety of forms and in a variety of situations.

Task Involvement

There is research evidence that learning is enhanced when students are engaged in productive tasks. According to Lai, Zhao, and Wang (2011), in task-based language teaching, communicative tasks are the sole elements of the curriculum, and the focus is on meaning. The Lai, Zhao, and Wang study was a semester-long experiment with online students of Chinese as a foreign language. The participants were 38 students aged 13 to 18 years (p. 85). Oral language

assessment combined with students' and teachers' perceptions suggested that the task-based language teaching was successful and well perceived. Laufer (2003) conducted an experiment with 10th grade high school students (p. 579) to compare the number of words retained after three tasks: reading a text and looking up unfamiliar words in a dictionary; a sentence-writing task using a list of words with their meanings and parts of speech; a sentence fill-in using the provided vocabulary words. Posttest results showed that words practiced in productive tasks were more likely to be recognized than if they were encountered through reading alone. Keating (2008) conducted a study that focused on using vocabulary tasks with reading and writing to increase vocabulary knowledge. The participants were university undergraduate students in third semester Spanish (p. 373). The study tested three different tasks that required different levels of learner involvement: a reading passage with a marginal gloss, an incomplete sentence fill-in, and writing original sentences vocabulary learned from the other two activities. The posttest results of participants involved in tasks 2 and 3 surpassed those of participants involved in task 1. Keating attributed the differences to the involvement level of the participants. Two similar studies (Laufer, 2003; Keating, 2008) affirmed that learning is enhanced by student activity and productive tasks. Perhaps there is less disagreement by researchers about the value of productive tasks, but it remains to be determined if the learning achieved through productive tasks can equal the learning achieved through direct instruction.

The most striking discovery from the literature review was that there remains much disagreement among researchers. The results of investigations on the same topic are often times divergent from each other. The inconsistencies in findings create a dilemma for instructors who look to the research for guidance when designing course curriculums and daily lessons. There are no clear answers as to which techniques may yield the best results for second language learners. Therefore, continued investigation is warranted.

Method

Research Questions

1. What is the relationship between direct instruction that includes corrective feedback and second language acquisition?
2. What is the relationship between engagement in productive tasks and second language acquisition?

Hypotheses

- H₁: There is a statistically significant difference between the pretest grammar and vocabulary test scores of a group who experienced a direct teaching approach that included instruction in grammar and corrective feedback and their posttest scores.
- H₂: There is a statistically significant difference between the pretest grammar and vocabulary test scores of a group who experienced an indirect teaching approach that included student activity and productive language tasks and their posttest scores.
- H₃: There is a statistically significant difference between the posttest scores of a group who experienced a direct teaching approach that included instruction in grammar and corrective feedback and the posttest scores of the same group who experienced an indirect teaching approach that included student activity and productive language tasks.

Participants

The participants were selected through purposive sampling based on their enrollment in beginning-level Spanish classes at a suburban middle school. The study originally began with 91

participants. However, 3 participants were eliminated because they did not complete all of the study activities. Two more were eliminated because of anomalies in their pretest scores, which will be explained in the data processing section. The sample that remained was composed of 86 participants ($n = 86$) enrolled in four sections. Thirty nine were females and 47 were males. The first language of all of the participants was English. All participants experienced formal second language instruction with the same teacher for 7 months prior to the study, and all were categorized as novice learners.

Implementation

The duration of the investigation was two units, approximately 4 weeks each, in the regular Spanish curriculum taught at the school where the study took place. Only one teacher provided the instruction during both units to assure consistency. The study began with a pretest given to all participants to assess prior knowledge in the first unit of the study. Next the participants experienced daily teacher-guided grammar and vocabulary lessons. The target vocabulary for the first unit was breakfast, lunch, and dinner foods, and the target grammar was conjugation of common regular and irregular *-er* and *-ir* ending verbs. Each lesson included the objectives for the lesson, and an anticipatory activity that reviewed material learned in previous lessons. Presentations of vocabulary and metalinguistic explanations incorporated visual components, and examples of how to use the grammar and vocabulary in context. Some of the lessons also included charts, audio clips, video clips that explained the grammar, and cultural perspectives related to language use. The participants practiced using the communicative skills of listening, speaking, reading, and writing during guided practice, group work, pair work, and individual practice activities. The practice activities were framed in the interpretive, presentational, and interpersonal modes of communication. As the students practiced, the teacher provided a variety of corrective feedback types that included recasts, prompts, elicitations, metalinguistic feedback, and direct correction. In addition to the teacher presentations, the participants completed vocabulary and

grammar practice activities that provided immediate behaviorist-style corrective feedback on spelling, correct choice of vocabulary, and correct choice of verb conjugations. Also included were critical thinking questions related to use of the target vocabulary and grammar, and individual homework options. To end the unit all participants took a posttest to assess their growth in grammar and vocabulary acquisition.

Before the second unit started, the participants took a pretest to assess prior knowledge of the target vocabulary and grammar. Rather than centering on teacher-guided lessons, the second unit centered on student activity and productivity with the language. The target vocabulary was places in the city, and the target grammar was conjugation of high-frequency irregular verbs in the present tense. First the participants were assigned two reading assignments, each one page in length. The target vocabulary and grammar structures were introduced in the context of the two stories. The participants were instructed to read the stories using any methods and resources, including books, dictionaries, electronic tools, and the vocabulary list, as they thought would help them to understand the stories. The participants were asked to write a summary in English about what they had read in Spanish. The reading assignments were framed in the interpretive mode of communication. The teacher did not provide corrective feedback, but rather provided positive feedback and encouragement toward the completion of the reading assignments.

Next the participants were given a vocabulary list and instructions for the completion of an individualized, project-based extended writing assignment in Spanish of at least five paragraphs in length. The participants were given much latitude in their approach toward the project, but were instructed to refer to the instructions and the grading rubric to assure that the requirements for the completed project would be met. Encouragement was given to use resources such as books, dictionaries, electronic tools, and the vocabulary list to aid them with the project. The participants made their own decisions about what form the final product would take. For example, some

participants chose to produce an electronic poster, some chose to produce a traditional poster, some produced a story in the form of a comic strip, while others wrote a story using a traditional story book format, and some created a travel journal. Thus, the project was framed in the presentational mode of communication. The teacher did not provide corrective feedback during the project, but rather provided positive feedback and encouragement for progress toward the completion of the project. Frequent reminders by the teacher to adhere to the instructions and grading rubric and about where to find resources were necessary throughout the project.

The final assignment was an oral partner skit using the same target vocabulary and grammar list as with the writing assignment. Much latitude was again given to the participants for the methods they chose to complete the assignment, as long as they followed the instructions and referred to the rubric before presenting the final product. Some students created a scene that was acted out as a face-to-face encounter in a restaurant, school, or other location. Some acted the scene out as a telephone conversation. Others said their lines without acting them out, and some turned their presentation into a puppet show. The skit was framed in the interpersonal mode of communication. The teacher again monitored progress toward the completion of the project, and gave positive feedback and encouragement toward that end. Corrective feedback was not given during the process of creating or presenting the project. The unit ended with the participants taking the posttest.

Instrumentation and Materials

An assessment that was used by the teachers in the world languages department of the school where the study was conducted served as the instrument for the pretest and the posttest. It had been used by the teachers for three consecutive years, and previous administrations of the assessment and analysis of the data derived from the assessment indicated that the tool was consistent and reliable. The individual questions on the assessment either required students to

identify the grammatically correct sentence from four choices, or required students to determine the correct choice of vocabulary to complete fill-in blanks in sentences. All of the same questions appeared in random order to each student as they completed the assessment, assuring that students would be unable to copy each other's answers. It also required only one answer per response to assure that all students would be evaluated under the same criteria. The data obtained was in the form of raw scores, on a scale that ranged from 0 to 100.

Data Collection and Analysis

The statistical analysis was accomplished using quantitative measures. Descriptive statistics were used to analyze the frequency, mean, standard deviation, and variability of the scores. According to Gravetter and Wallnau (2005), a normal distribution is symmetrical, the greatest frequency is in the middle, and relatively smaller frequencies exist in either extreme of the distribution (p. 43). The descriptive statistics determined that the requirements to proceed with parametric tests were met. Dependent-samples *t* tests were used to compare the pretest and posttest scores from each treatment. The results of the analysis determined if there were statistically significant differences from pretests to posttests, and between the posttests. It was expected that both treatments would affect growth from pretest to posttest. For the present study the $p < .05$ level was used to determine a statistically significant result. Pearson Correlation served as the post hoc test to determine the level of significance beyond chance.

Test Scoring, Coding, Data Entry, and Screening

The data were acquired from the administrations of a pretest and a posttest given to each of the participants before and after each of the two instructional units. A 100-point scale was used in scoring the tests. Individual scores for each participant on each of the tests were recorded on an Excel spreadsheet. The scores were coded with a numerical system that tied each individual to class 1, class 2, class 3,

or class 4. To ensure the anonymity of the individual participants no names were included. The Excel file was then loaded into SPSS for the statistical analyses. The data were screened for missing scores and extreme scores, and several were found. The scores of three participants were eliminated from the data analysis because they had not completed all four tests. Two extreme scores were found, one in each of the pretests. The extreme score on the first pretest was 96, and the extreme score on the second pretest was 100. The feasible explanations for the anomalies in the pretest scores of the two participants were: (a) chance; (b) they studied or were exposed to vocabulary and grammar topics outside of the regular class sessions; or (c) they were highly proficient in learning strategies, and thus were able to identify with a high level of accuracy the correct answers on the pretests. Regardless of possible explanations, their scores for all four test iterations were eliminated from the data analysis to prevent invalidation of the study.

Data Analysis

Analysis 1

This analysis tested for differences between the pretest and posttest of the first instructional unit. It was expected that the scores on the posttests would be significantly higher than those of the pretests if the teacher-directed methods were effective. The dependent-samples *t* test was used for this purpose because it allows researchers to study learning over time (Gravetter & Wallnau, 2005). Two assumptions underlying the *t* statistic are normality and homogeneity of variance (Gravetter & Wallnau, 2005, p. 262). No discrepancies were found in the data.

Table 1 provides the *t*-test results and the descriptive statistics. It can be seen that the mean posttest scores are appreciably higher than the mean pretest scores. A statistically significant result was achieved, thus the results provide confirmation for the hypothesis that direct

instruction in grammar and provision of corrective feedback would be effective.

The effect size indicates the practical importance of a difference. With *t* tests, Pearson Correlation is often the post hoc test used for this purpose. The effect size ($r = .01$, shown in table 1) suggests a significant effect.

Analysis 2

This analysis tested for differences between the pretest and posttest of the second instructional unit. It was expected that the scores on the posttests would be significantly higher than those of the pretests if the student-centered methods were effective. The dependent-samples *t* test was used for this analysis, for the same reasons it was used for analysis 1.

Table 1 provides the *t*-test results and the descriptive statistics for this analysis. The mean posttest scores are noticeably higher than the mean pretest scores. A statistically significant result was achieved, and statistical validation for the hypothesis that student activity and productive use of language would be effective was found. Pearson Correlation was again used to determine the significant effect size ($r = .01$, shown in table 1).

Analysis 3

Analysis 3 tested for differences between the posttests of the two treatments. It was expected that the unit taught with direct instruction and corrective feedback would yield higher scores than the unit taught with student activity and productive use of the language. The dependent-samples *t* test was used for this analysis. As with the previous analyses the scores were assessed for normality and homogeneity of variance, and no divergences were found.

Table 1 provides the *t*-test results and the descriptive statistics

for this analysis. The mean posttest scores of the first unit are markedly higher than the mean posttest scores of the second unit. A statistically significant result was achieved in favor of the direct instructional methods. The results provide statistical substantiation for the hypothesis that direct instruction in grammar and provision of corrective feedback would be more effective than student activity and productive use of language. The Pearson Correlation determined a significant effect size ($r = .01$, shown in table 1).

Table 1

Within Group Comparisons for Pretest, Posttest, and Posttest-Posttest Differences

Pair	M_1	M_2	Diff	SD	$t(85)$	p	Pearson
							Correlation
							r
Direct Instruction							
Posttest – Pretest	84.907	40.988	43.919	17.311	23.526	.000	.01
Student Activity							
Posttest – Pretest	69.442	45.834	23.608	21.854	10.026	.000	.01
Direct Instruction –v- Student Activity							
Posttest – Posttest	84.907	69.442	15.465	13.228	10.842	.000	.01

Notes. M = mean. SD = standard deviation. $Diff$ = the difference between the mean scores. t = the t statistic based on the degrees of freedom SPSS report. p = the probability of a result simply by chance. r = the Pearson Correlation report of effect size.

Discussion

This section provides a detailed review of the study that evaluated the effectiveness of two instructional approaches used with second language learners. It was hypothesized that the use of teacher-guided approach that included direct instruction in grammar and various forms of corrective feedback would result in increases in

second language vocabulary and grammar acquisition. It was also hypothesized that student-centered approach that focused on student activity and productive language tasks would result in increases in second language vocabulary and grammar acquisition. The final hypothesis was that the teacher-guided approach would result in higher amounts of acquisition than the student-centered approach. Following is the discussion of the researcher's conclusions and interpretations, what the researcher views as the implications of the present study, and the researcher's recommendations based on the results.

Interpretation of the Findings

Through the statistical analysis it was determined that the use of the teacher-guided approach that included direct instruction in grammar and various forms of corrective feedback indeed resulted in increases in second language vocabulary and grammar acquisition as evidenced by a statistically significant result from pretest to posttest scores. The statistical analysis also confirmed that student-centered approach that focused on student activity and productive language tasks resulted in increases in second language vocabulary and grammar acquisition, again evidenced by a statistically significant result between pretest and posttest scores. In addition, it was confirmed by a statistically significant result that the teacher-guided approach resulted in higher amounts of acquisition than the student-centered approach. Although it is possible that the scores and outcomes were influenced by the differences in the content of the two units, it is highly unlikely since the lists of target vocabulary were similar in length (115 in the direct-instruction unit, 104 in the student-activity unit). Based on the data, the conclusion was made that there is a significant difference between the two instructional approaches on second language acquisition in favor of the teacher-centered approach.

It must be noted that a higher level of variability, although not abnormal, was found in the pretest scores and in particular in the

pretest scores from the second unit. In the units prior to the present study, the students were taught language learning strategies. The strategies included use of cognates, word analysis, context guessing, identification of language features, and knowledge of grammar. The taught strategies were practiced with language input in reading and listening. Use of strategies was not the focus of the present study, however it is probable that some of the students internalized the previously taught strategies, and continued to use them during the activities in the present study. Some of the students may have increased their proficiency in strategy use throughout the course of the study, thus allowing them to better understand the second language as they read the pretest questions. Therefore, the variability in the pretests may be explained by the intervening variable of the learners' independent knowledge and employment of strategies. Nonetheless, in looking at the difference in means between the pretest and posttest data, it is evident that second language acquisition occurred as a result of the focus activities of the study.

Relation of the Findings to the Literature Review

The rationale for the instructional approach of the first unit was guided by the findings of several researchers identified in the literature review of the present study (Brown, 2009; Carduner, 2007; Doughty, 1991; Pellicer-Sánchez & Schmitt, 2010; Sang-Keun, 2008; Zhou, 2009), who found that grammar instruction was helpful to second language learners. The teacher-guided lessons used in the first unit included direct instruction in grammar, vocabulary, and sentence structure. Other researchers (Ammar, 2008; Ayoun, 2001; Dodigovic, 2007; Lyster & Izquierdo, 2009; Nassaji, 2009) found that various forms of corrective feedback were effective in increasing second language acquisition. Corrective feedback was provided to learners in the present study by the teacher, other students, and through use of a variety of practice tools. The direct approach allowed for building of background knowledge by provision of correct models of language in use, and provision of feedback on student use of target language

structures. The assumption was that the corrections would allow students to learn from their mistakes and thus would enhance their ability to identify and produce more accurate output in future attempts to use the language.

Some researchers (Horst, 2005; Rodrigo, Krashen, & Gribbons, 2004) found that second language acquisition can occur in the absence of direct instruction. Other researchers (Keating, 2008; Lai, Zhao, & Wang, 2011; Laufer, 2003) found that task involvement affected second language acquisition. The rationale for employing the student-based activities was determined by the dual lines of thinking. The reading and writing assignments included tasks that focused on search and need. The search activities (use of dictionaries and online tools, word lists, referencing the textbook) increased the students' involvement in the tasks. The needs to communicate their thoughts clearly in the writing assignment also lead students to high levels of involvement. The mandate of involvement in the language tasks aided in second language acquisition. The speaking assignment allowed the students to learn through productive output and creative expression, affirming Swain's (1995) assertions that learner output aids with second language acquisition.

The results of the present investigation agreed with the findings from the literature review. Both of the units studied in the present investigation included high levels of task involvement by the learners. It is clear that second language acquisition can occur in the absence of direct instruction, but it does not occur at the same levels as it does with direct instruction. The results thus added to the body of evidence related to which instructional approaches aid in second language acquisition.

Practical Applications of the Findings and Recommendations

The success of both approaches in producing second language acquisition in novice learners suggests that there may be multiple

successful ways of providing second language instruction. Perhaps instruction that combines approaches rather than implementing one or the other in isolation would be best. Second language instructors who strive for a less traditional approach but struggle with aiding their students to develop grammatical competency may find that an approach balancing teacher-centered activity with student-centered activity can facilitate language-structure competency. Future studies of a combined approach could provide further evidence to guide second language curriculum design and instruction. Since this study focused on adolescent aged novice learners, it is unclear whether the findings can be generalized to older or to more advanced learners. Further comparison of both approaches with older and with more advanced second language learners is suggested.

Conclusion

The study compared two instructional approaches by analyzing the scores from vocabulary and grammar assessments of beginning second language students. Both approaches were determined effective in producing second language acquisition. The teacher-guided approach that included direct instruction in grammar and various forms of corrective feedback was found more effective than the student-centered approach that focused on student activity and productive use of language. Important implications were found for educators in the field of second language learning. There is a need for researchers and educators to further monitor the effectiveness of both approaches. With continued demand for workers able to communicate in two or more languages, it is imperative to find successful methods of instruction in second languages.

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