A Comparison of Student Achievement in the Second Language Acquisition of Spanish in Both Total Online and Traditional College Level Courses

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A Comparison of Student Achievement in the Second Language Acquisition of Spanish in both total Online and Traditional College Level Courses

Presented by: Vanessa Paige Fox Crump
October 17, 2014
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Savannah, GA
Introduction

需要增加外语教育

- 在线教育正在使用，允许灵活性
- 部门的国防：国家安全和专业通信（Jackson & Malone, 2009）
- 现代语言协会（2011）：9/11/2001年本科生语言培训的扩展
- 乔治亚大学系统（2013）：31所机构提供在线课程；110门西班牙语课程
Purpose of Study

Students should have similar achievement levels in both the online and on-campus courses.

Research Questions Addressed:

Is there a difference between traditional and online course scores on the final oral exam?

Is there a difference between traditional and online course scores on the written final exam?
Equivalency Theory: Students in online courses can meet similar outcomes as the traditional classrooms (Lapsley, Knlik, Moody, & Arbaugh, 2008).


Computerized Assisted Language Learning (CALL):

- Used in multiple formats
- Primarily used to improve and build on skills being taught in on-campus classes.
- Total CALL classrooms are still fairly new
Research on CALL and foreign language:

- Specific skill(s) taught in foreign language courses (reading comprehension, grammar, cultural knowledge, and oral proficiency)
- Majority looked at hybrid or on-campus
- Variety of research styles and languages used

Gap in the literature

- Appeared to be no studies that addressed student achievement on final exams between on-campus and online courses
Description of Course Layouts

✦ SPAN 1001 and 1002 exist in on-campus and online formats

✦ Online was developed from materials and teaching styles of the on-campus courses and include necessary technological solutions for things to function correctly.

✦ Both types include sections on vocabulary, culture, grammar, writing, reading comprehension, and pronunciation.

✦ Both types also include quizzes, exams, discussion posts, oral exams, lecture, reading comprehension practice, and workbook assignments.
Description of Course Layouts
Continued

✦ Both utilize course materials, quizzes, discussion posts, reading comprehension practices, and workbook assignments in online/digital formats.

✦ The online courses perform electronic exams and audio recordings for oral exams, whereas on-campus courses take in-class paper and pencil style exams and complete oral exams in front of the professor.
Example of Vocabulary Lesson: On-Campus

**FOOD/ COMIDA**

The following chart is a list of common foods in the Spanish language. Sometimes there are multiple words to express the same thing. These differences are cultural and vary from country to country.

<table>
<thead>
<tr>
<th>Español</th>
<th>Inglés</th>
<th>Español</th>
<th>Inglés</th>
</tr>
</thead>
<tbody>
<tr>
<td>Las bebidas</td>
<td>Beverages</td>
<td>El agua</td>
<td>Water</td>
</tr>
<tr>
<td>El café</td>
<td>Coffee</td>
<td>El té</td>
<td>Tea (hot not iced)</td>
</tr>
<tr>
<td>La leche</td>
<td>Milk</td>
<td>El zumo</td>
<td>Juice. It varies from country to country as to which is concentrate and which is fresh.</td>
</tr>
<tr>
<td>El vino</td>
<td>Wine</td>
<td>La cerveza</td>
<td>Beer</td>
</tr>
<tr>
<td>Tinto</td>
<td>Red</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blanco</td>
<td>White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>La gaseosa</td>
<td>Carbonated drink</td>
<td>La botella de agua</td>
<td>Bottle of water</td>
</tr>
<tr>
<td>Los refrescos</td>
<td>Soft drink</td>
<td></td>
<td></td>
</tr>
<tr>
<td>La coca cola</td>
<td>Coca Cola</td>
<td></td>
<td></td>
</tr>
<tr>
<td>La copa de vino</td>
<td>Glass of wine</td>
<td>Las frutas</td>
<td>Fruits</td>
</tr>
<tr>
<td>La naranja</td>
<td>Orange</td>
<td>El banano</td>
<td>Banana. The gender depends on the country.</td>
</tr>
<tr>
<td>La manzana</td>
<td>apple</td>
<td>La cereza</td>
<td>Plantain (Spain)</td>
</tr>
<tr>
<td>La pera</td>
<td>Pear</td>
<td>La piña</td>
<td>Cherry</td>
</tr>
<tr>
<td>La fresa</td>
<td>Strawberry</td>
<td>La uva</td>
<td>Pineapple</td>
</tr>
<tr>
<td>La frutilla</td>
<td></td>
<td></td>
<td>Grape</td>
</tr>
</tbody>
</table>
Example of Vocabulary
Lesson: Online

Food (Comida)

The following chart is a list of common foods in the Spanish language. Sometimes there are multiple words to express the same thing. These differences are cultural and vary from country to country. It is important that you pay attention to definition differences that are listed as cultural country differences. Also, it is important that you group your words together by category as you study. You will need to be able to identify foods as fruits, vegetables, meats, dairy products, snacks, etc. It is also important that you pay attention to the article, accents if any, and spelling of the words -- since one small omission or change will cause the definition of the word to change.

Español  |  Inglés
---|---
Las bebidas  |  Beverages

Click the Spanish word to hear it pronounced.
Example of Culture/Reading Comprehension: On-Campus and Online

**Reading Assignment**

Read the following sections in the text on culture. Make sure you pay attention to the information presented in each section. You will have to answer questions on the unit exam based on the material. You may find a dictionary will be helpful.

- Pg. 183, *A la hora de comer*;
- Pg. 189, *Los bares de tapas*;
- Pg. 192, *Las costumbres en los restaurantes hispanos*.

**Discussion**

Answer the following discussion question:

*In this section, we are studying foods. After looking at the vocabulary and discussing types of foods and eating patterns, there are several questions that I want you to answer.*

1. What types of Hispanic foods have you tried?
2. What types of Hispanic drinks have you tried?
3. What was your impression of each one?
4. What types of foods and drinks would you like to try after the classroom discussion? Each question must be answered completely.
Example of Grammar Lesson: On-Campus

Students receive lecture and practices that are completes in class. The students complete an electronic quiz on the topic once the topic is covered and completed in class.
Students would work through lecture materials and practices. They would also take an electronic quiz on the topic. The audio lecture allows students to listen to lecture in Spanish while reading through the notes provided in the second link of the unit.
Methodology

- Quantitative, ex-post facto style study
  - Test scores were examined that had been previously given.
  - 375 Spanish students from a two-year associate degree offering college
    - SPAN 1001: 141 on-campus; 127 online
    - SPAN 1002: 44 on-campus; 63 online
  - On-campus and online versions were taught
  - Six-semester period
  - Varied in age, sex, race, background in the language, and outside school responsibilities.
Final oral exams and final written exams

Administered at end of each semester

Similar questions; usage of 3:1 for randomization.

All scores were factored stored in electronic grade-books

All outlying scores of 0 for non-submission were eliminated

The data were placed into SPSS

Coded per type of course and type of exam (1 on-campus; 2 online)

Analyzed using two-independent samples t-tests
Results of Research Question A

### Results of T-tests for the Final Oral Exam for SPAN 1001 Courses

<table>
<thead>
<tr>
<th>Outcome</th>
<th>On-Campus</th>
<th></th>
<th>Online</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Overall Score</td>
<td>17.29</td>
<td>1.92</td>
<td>136</td>
<td>16.94</td>
</tr>
</tbody>
</table>

* p < .05.

### Results of T-tests for the Final Oral Exam for SPAN 1002 Courses

<table>
<thead>
<tr>
<th>Outcome</th>
<th>On-Campus</th>
<th></th>
<th>Online</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Overall Score</td>
<td>17.82</td>
<td>1.21</td>
<td>39</td>
<td>16.84</td>
</tr>
</tbody>
</table>

*p < .05.
Results of Research Question B

### Results of T-tests for the Final Written Exam for SPAN 1001 Courses

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Course Type</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On-Campus</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>Online</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>t</td>
<td>df</td>
<td></td>
</tr>
<tr>
<td>Written Exam</td>
<td>84.78</td>
<td>15.75</td>
<td>141</td>
<td></td>
<td>86.67</td>
<td>12.9</td>
<td>113</td>
<td>-1.09</td>
<td>252</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p* < .05.

### Results of T-tests for the Final Written Exam for SPAN 1002 Courses

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Course Type</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On-Campus</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>Online</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>t</td>
<td>df</td>
<td></td>
</tr>
<tr>
<td>Written Exam</td>
<td>81.17</td>
<td>9.99</td>
<td>41</td>
<td></td>
<td>83.37</td>
<td>14.01</td>
<td>62</td>
<td>-0.87</td>
<td>101</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p* < .05
Discussions from the Results

- SPAN 1001 could reach similar levels of achievement
- SPAN 1002 could reach similar levels of achievement on the final written exam but not on the final oral exam.
- Unique in the fact that it addressed a gap in literature.
- SPAN 1001 did support the concept of equivalency theory, but SPAN 1002 only supported the theory in the written final exam.
Limitations to the Study

- Way students are tested: proctored vs. non-proctored exams
- Course equalization of students
- The inability to randomize final oral exams questions online
- Length of time each course had to prepare for the exam
- Students re-taking the course and in Learning Support/Remedial Courses (especially SPAN 1001)
Implications based on the Results

- SPAN 1001 should remain in both class formats
- Examine the SPAN 1002 online course in the area of the final oral exam, as it may be considered more/too difficult
- Address as many of the limitations as possible
Recommendations

- Develop and launch higher level online courses (ex. SPAN 2001)
- Provide more oral practice opportunities for SPAN 1002 online
- Repeat the study in multiple formats:
  - Review more semesters/course sections
  - Using different texts and curriculum for the courses
  - Analyze similar data for higher level courses
  - Identify and eliminate scores for re-takers and Learning Support and/or second/third attempts
Recommendations Continued

- Address the limitations that can be addressed
- May be impossible to make courses equal or change pre-exam study time
- Develop ways to randomize oral exam questions online
- All final written exams must be proctored
- Present findings at a state conference
- Present findings in publications such as journal articles
What has been done since this research?

- The consolidation of the school has changed the curriculum and the text. Both SPAN 1001 and 1002 have been re-written and updated to accommodate the changes in the courses.

- There are also new rubrics and criteria that the oral exams are graded on that came out of the consolidation.

- Desire to Learn Dropbox recordings have allowed us to create multiple random dropboxes that students are randomly assigned. Each dropbox group has specific questions that the students must answer. This has allowed some randomization of the oral exams as students receive the questions once they click on the dropbox to record.
What has been done continued

✧ I am currently working on building more oral practice activities for the online SPAN 1002 course to be embedded into the course.

✧ Many of the activities and media for the online course have been re-coded to function in multiple electronic formats and accommodate the usage of ipads, smartphones, tablets, and computers.

✧ SPAN 2001 is in the pipeline to be created. It is hopeful that it will have a Spring 2016 launch date.