



Enhancing the Use of the Spanish Language in a Service-Learning Environment

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Abstract

The primary purpose of this study was to assess the effectiveness of teaching Spanish to Physical Therapy students while on service learning trips in Peru and Mexico. The study focused its attention on practical uses of Spanish while delivering Physical Therapy services. A secondary purpose was to enhance students' cultural competency during service learning projects. By implementing the Spanish program, we hoped to improve the exchange of information between student and patient, ideally leading to overall improved cultural competency of the students. Researchers hypothesized that students, subjectively, will report to exhibit a better command of Spanish at the end of their trip as opposed to their performance at the beginning of the service project.

Methods: Doctor of Physical Therapy students and medical personnel who participated in service learning trips to Spanish speaking countries were asked to engage in an intensive, practical application language program throughout the trip. They participated in 20-minute language modules at the beginning of each day and each evening. In order to assist students in remembering the vocabulary and phrases, a number of reminders were provided to participants. Participants were asked to rate themselves on his or her ability to speak the language and interpreters tested the participants by quizzing them on common words and phrases both at the beginning and end of the trip. The scores were compared.

Results: Fifty-five DPT students and medical personnel met the inclusion criteria, and averaged 31-years of age. The average intake rating on the participants ability to speak Spanish was 1.73 out of 10; and at the end of the program, the average outcome rating was 4.25 out of 10. This demonstrated a significance between the pre and post-test scores ($p \leq 0.05$) on the participants ability to communicate in Spanish. After instructors completed the objective analysis of the participants' ability to speak Spanish, the mean difference was 14.67 ($p \leq 0.05$). Researchers also found no difference between different interpreters' ability to teach by comparing the different groups' pre and post-test scores. Participants reported a common appreciation regarding the repetitions of the newly acquired words and sentences, the practicality of the information taught, and group interactions throughout the language program.

Conclusion: Learning modules were found to be an effective tool of acquiring Spanish in a Physical Therapy setting. By the end of the week, students increased their communicative proficiency and required less assistance from the interpreters. This demonstrated that the program significantly improved results objectively as well as subjectively.

Keywords: Language acquisition, service-learning, proficiency, full immersion, Physical Therapy.

Introduction

Doctor of Physical Therapy (DPT) students all around the United States are participating in service learning trips to provide Physical Therapy services and gain cultural competencies. During the trips, students often encounter language barriers which not only alter patient-therapist communication, but also may negatively affect the functional outcomes of the patients [Bowman & Cook, 2011]. This trend is not isolated to DPT students, but rather healthcare students as a whole. Since patients and DPT students in these situations do not speak each other's language, it is also common that they are not familiar with each other's culture, which may disconnect the relationship even further.

Statement of the problem

As students travel to perform service-learning, interpreters are often required to aid in communication between the DPT students and patients. In the vast majority of the cases, patients and DPT students do not speak each other's language or are unfamiliar with each other's culture, thus requiring the mediation of interpreters. However, the assistance of interpreters requires time and money that is not readily available, especially in the circumstances of the often-underserved population receiving therapy. In turn, this leads to the even bigger issue of establishing rapport;



consequently, patients in underserved populations may experience feelings of detachment from therapists.

Objectives

The primary purpose of this study was to look at the effectiveness of teaching Physical Therapy students Spanish to facilitate the delivery of Physical Therapy services. A secondary purpose was to enhance students' cultural competency. By implementing the Spanish program, we hope to improve communication between student and patient, ideally leading to overall improved cultural competency of the student. While this research is conducted in Spanish-speaking regions, ideally this program could be applied to all languages.

Hypothesis

Researchers hypothesize that students, subjectively, will report having a higher command of the language at the end of their trip, compared to their performance at the beginning of the service project. Researchers also hypothesize that lessons and practice of language skills will create a statistically significant difference in communication abilities in those students who complete a one-week course of intense language training in Spanish.

Methodology

After approval from the IRB committee, using a sample of convenience, Doctor of Physical Therapy students and medical personnel were recruited based on the location of the international service trips they attended, Mexico or Peru. Each trip had a duration of 9 days. Included were healthcare personnel which consisted of students and other volunteers, who did not speak the language fluently. Exclusion criteria, included individuals who were already fluent in Spanish. At the beginning of the trip, the participants completed an intake questionnaire and an oral exam regarding their knowledge of the language, as well as an informed consent form. At the start and end of each day, participants were offered a 20-minute Spanish language class, for a total of 10 sessions. During the morning lessons, participants would learn vocabulary and high frequency phrases used in clinical settings. They would role play common scenarios used in therapy. The evening sessions were used to apply the morning session's content, and to introduce additional terminology collected during actual patient-therapist exchanges. Prior to sessions, the students received Airdrop (picture message) images of the day's lesson. In addition to the images provided, hard copy lists of words and phrases used were taped on the clinic walls which were intended to aid the healthcare personnel during therapy sessions. At the end of each service learning trip, an exit questionnaire and oral exam were completed, similar to the ones completed at the beginning of the trip. The exit questionnaire provided subjective data relating to participants impressions of the program and how they believed it affected their ability to speak the Spanish. Oral language tests objectively evaluated their change in ability to communicate in Spanish. Once the questionnaires and pre and post tests were completed, paired t-tests ($p \leq 0.05$) were performed which compared the scores at the beginning of the week with those at the end of the week. Collected data was analyzed for qualitative and quantitative results.

Results

Throughout this study, our objective was to determine whether or not an intensive, full-immersion, language course would be clinically beneficial for students on services learning trips to Spanish speaking countries. A total of 55 Doctor of Physical Therapy students and other personnel (20 in Mexico, 35 in Peru) met the inclusion criteria, and completed the intensive language program during service learning trips. The average age of participants was 31-years-old. After collecting the post-program questionnaires, participants were asked if they thought this program was beneficial for providing physical therapy services to the people of the host country. Collectively, 89% of participants agreed it was beneficial, while 11% disagreed. In turn, 100% of participants would recommend this intensive language program to future students.

Within the completion of the intake questionnaire, the average participant rated his or her ability to communicate in Spanish. The result was 1.73 out of 10. After the final day of the service program, the average participant's ability rating, as determined by an exit questionnaire was 4.25 out of 10. Table 1 lists the average personal ratings and the mean differences for each individual trip. The results demonstrated a statistically significant difference between pre and post test scores on the participants ability to speak the Spanish language. When objectively analyzing the participants' ability to speak the language, the value was found to be significant with a mean difference of 14.67, as seen



in Table 2. After comparing the different groups' pre and post test scores, no difference was found between the interpreters' ability to teach the language.

Table 1: <i>Subjective Data obtained from each Service Learning trip</i>				
Trip attended	Number of participants (N)	Average intake scores (out of 10)	Average outtake scores (out of 10)	p value
Peru 2016	14	1.9	4	0.00
Peru 2017	9	1.31	4	0.00
Mexico 2018	11	1.42	4.77	0.00
Peru 2018	12	2.17	3.96	0.01
Mexico 2019	9	1.67	4.67	0.00
Average	55	1.73	4.25	0.00

Table 2: <i>T-Test demonstrating the interpreter's ability to teach the Spanish Language in Peru '18 ($p \leq 0.05$)</i>	
Number (N)	15
Mean Value for Pretest Scores	10.60
Mean Value for Posttest Scores	25.27
Mean Difference	14.67

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