

Hello everyone! I would like to welcome you to my lighting talk about Understanding the Experience of Spanish Speakers Learning Physics in American Universities

In the United States, there are currently 41 million Spanish speakers. A student who is a native Spanish speaker yet falters in English, maybe inconvenienced by studying in universities in the United States. Examples of barriers include cultural differences or misunderstandings, and having to decipher English while studying, note-taking, or explaining themselves in conversation. Furthermore, they have a higher likelihood of facing socioeconomic challenges, such as discrimination or poverty. While these difficulties are not unique to Spanish Speaking English Learners, the relatively high Spanish speaking population in the United States motivated me to focus on this group.

My project involves studying 1 to 4 students who are Spanish speaking English learners and chronicling their studies for one semester of a General Physics class. This qualitative case study involves periodic interviews and discussion sessions. I will also participate in a tutoring service wherein I work with the participants to see if they come across difficulties they have not yet noticed. Recruitment will take place in the early Autumn term and the participants will be followed until the end of the term.

During the summer, I prepared for the Autumn term by doing some literature review, applying for Institutional Review Board approval, and taking a course by the Collaborative Institutional Training Program to be better prepared to work with human subjects. I also worked for a week as a physics tutor to get accustomed to the interaction.

In a paper by John Airey and Cedric Linder, the authors compared how Swedish university students fared when studying physics in English, their second language. They concluded several points, not only about the students themselves but also about how the pupils perceived their own ability and shortcomings. Students often claimed the language of study to be trivial in their learning outcome. However, students frequently caught themselves having several problems when they were shown recordings of themselves in class. Some would wait until the end of class to ask questions instead of asking during class, and others would take notes they did not understand and make sense of them later. Students had the least difficulty when professors closely followed the course material instead of deviating from it. Even though students were able to cope with studying in a second language, problems and obstacles still arose.

As the United States' minority population increases and becomes richer, so does their presence in university. This means it becomes more important than ever to accommodate them and to ensure that they do not face struggles that can be avoided

if everyone is more aware of the ways in which Spanish speaking students may be hindered in their educational journey. Thank you for listening :)

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