How Students Become Teachers:  
A Study of the Correlation Between Learning and Teaching Styles  
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Background
At the beginning of any semester, many college students say that they need a couple lectures to “get” the professor. Each professor differs in his or her teaching style, subject matter, and speaking speed. Studies have looked at the correlation between professor’s teaching styles and the students’ learning styles. Some have looked at ways that professors can modify their teaching so that the material can be more approachable for students. For instance, the matching of learning styles between teachers and students has been found to affect grades and student satisfaction (Walter, 1980) and according to Grasha, students seem to perform better in a learning environment that is dissimilar to their learning styles (Grasha, 1981) because it challenges them.

Our study, however, looked at the learning style preferred by the professors and the possible correlation with their teaching style.

Introduction
Our experiment looks to find a correlation between the learning styles of professors and their respective teaching styles. We plan to study this by administering the Grasha-Reichmann Learning and Teaching Style Survey to the professors for General Chemistry and American Sign Language.

Hypothesis: We hypothesize that the way that a professor learned when they were a student has a correlation to the manner in which they teach their class.

Methods
The participants in this experiment were professors for General Chemistry and American Sign Language.

The professors were e-mailed copies of the Grasha-Reichmann Learning Style Survey and the Grasha-Reichmann Teaching Style Survey. Grasha identified five teaching styles called expert authority, formal authority, personal model, facilitator, and delegator. The study also identified learning styles called independent learner, avoidant learner, collaborative learner, dependent learner, and participator learner. The professors were asked to complete both surveys. Participants were asked to answer each question on a scale of 1 to 5 (1 being “strongly disagree” and 5 being “strongly agree”). A sample of each survey is pictured below.

Results
Participants were asked by each survey to respond to each statement on a scale of 1 to 5 (1 being “strongly disagree” and 5 being “strongly agree”). The results for 3 professors, along with the average for each category are displayed below. The score on the y-axis represents the score that each professor received for each individual category once the response numbers were totaled and averaged for the questions in each category.

Discussion
Many aspects of the results gathered point towards a variety of correlations between learning and teaching styles.

Positive correlations –
- collaborative learner vs. delegating teacher
- participating learner vs. delegating teacher

Negative correlations -
- independent learner vs. formal authority
- competitive learner and facilitating teacher

The positive correlations between teachers with high delegating levels and learners with high collaborative and participation could possibly be attributed to the fact that professors who were able to collaborate well with peers and participate a good deal find it beneficial to delegate projects and assignments to students because they themselves benefited from the process of collaboration.

The negative correlation between independent learners and formal authority teachers (teachers who are concerned with providing positive and negative feedback, establishing learning goals, expectations, and rules of conduct for students) could be because these teachers did not require much direction from their own teachers and so are therefore more likely to not see the need for exact expectations and feedback.

The negative correlation between competitive learning and facilitating (emphasizes teacher/student interactions, provides, provides as much support and encouragement as possible, may come from an idea that a teacher who was a competitive learner may not want to give away too much information to a student as to keep the playing field even between students.

It appears, based on these observed relationships, that very plausible correlations do exist between many of the aspects of teaching and learning measured. These correlations lend support to the hypothesis.

Conclusion: There is enough information to maintain the hypothesis that there is a correlation between teaching and learning style. However, the sample size was smaller than ideal and there are many additional possible explanations for these trends.

If research of this nature were to be conducted in the future, it would be beneficial to see scores from more professors and from a greater range of academic disciplines for wider comparison.

References
Hunter, Walter E. Relationships between Learning Styles, Grades, and Student Ratings of Instruction. 5. 1980