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Background

- USP <800> contains important information related to sterile and non-sterile compounding of hazardous materials.
- It is a complex subject with many details that are hard to remember if not using the information in daily practice.
- The jigsaw method is a collaborative learning method where students are divided into groups of 3-8 and each group becomes an expert in part of the learning material.
- Within each group, individual learners may become experts in a particular subject matter as well.
- Each group teaches their section to the rest of the class along with a customized implementation plan.

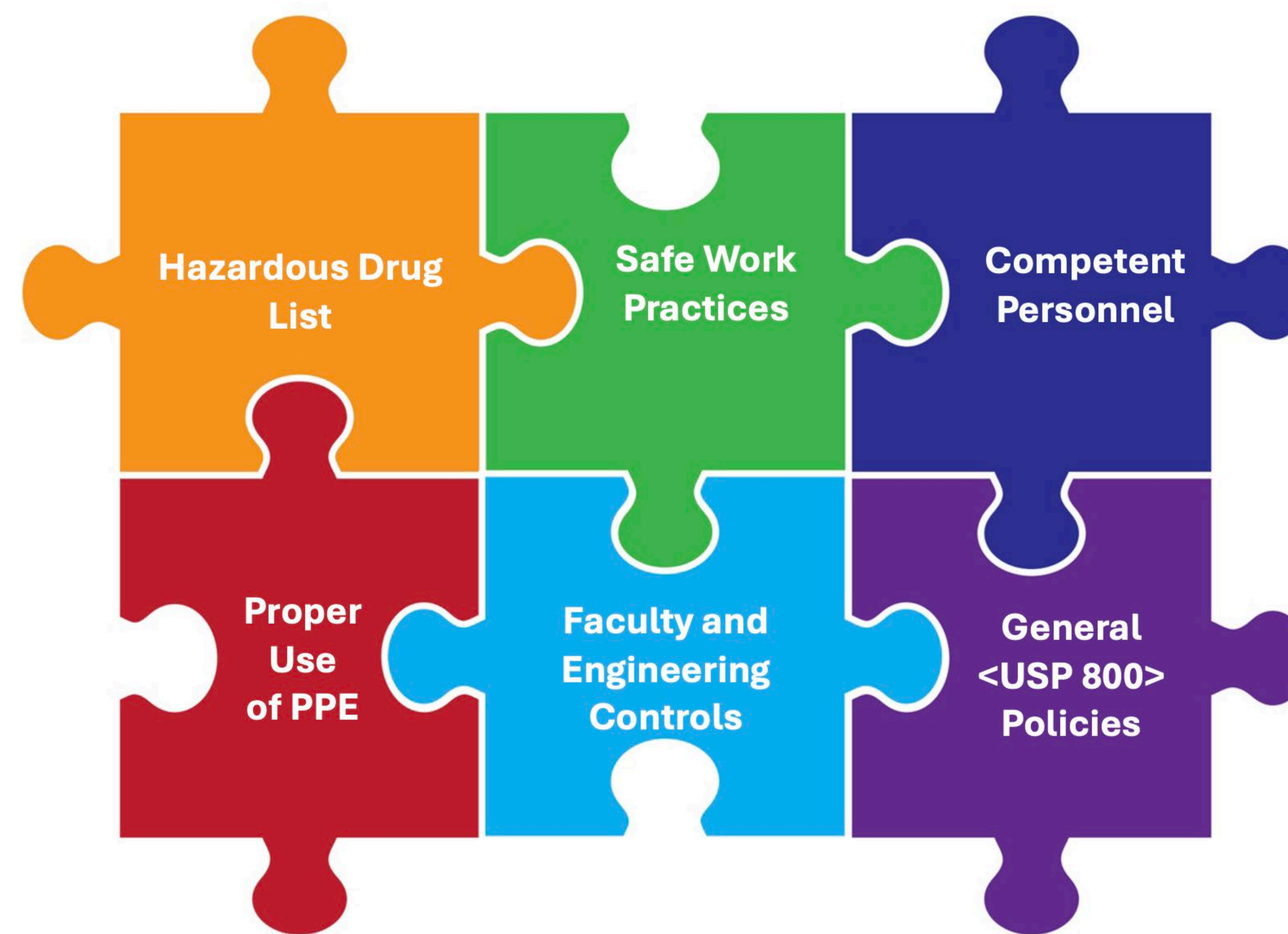
Objective

Using the jigsaw method to teach USP <800> will be more engaging to students than a traditional lecture while maintaining similar learning comprehension.

Methods

- Our class consists of 4 sections taught on 2 different campuses, with 2 sections remotely connected in the classroom.
- The number of students in each section is:
 - 12 + 26 for the combined Section 1
 - 24 for Section 2
 - 24 for Section 3
- Each section was divided into 6 groups and assigned multiple portions of USP <800>.
- The groups then subdivided their tasks:
 - Each student worked on a particular part of the group assignment.
 - Each group prepared an implementation plan.
- All groups presented implementation plans to the class.
- Each class was given a short survey following the assignment.

Jigsaw Method of Teaching



Testing Statistics

- The results for the USP <800> exam from 2023 (lecture) were compared to the results in 2024 (jigsaw assignment).
- Identical exam questions were used in both years.
- 2023 average score (n=97) was 28.96 out of 30 points
- 2024 average score (n=86) was 28.20 out of 30 points

Unpaired t test results

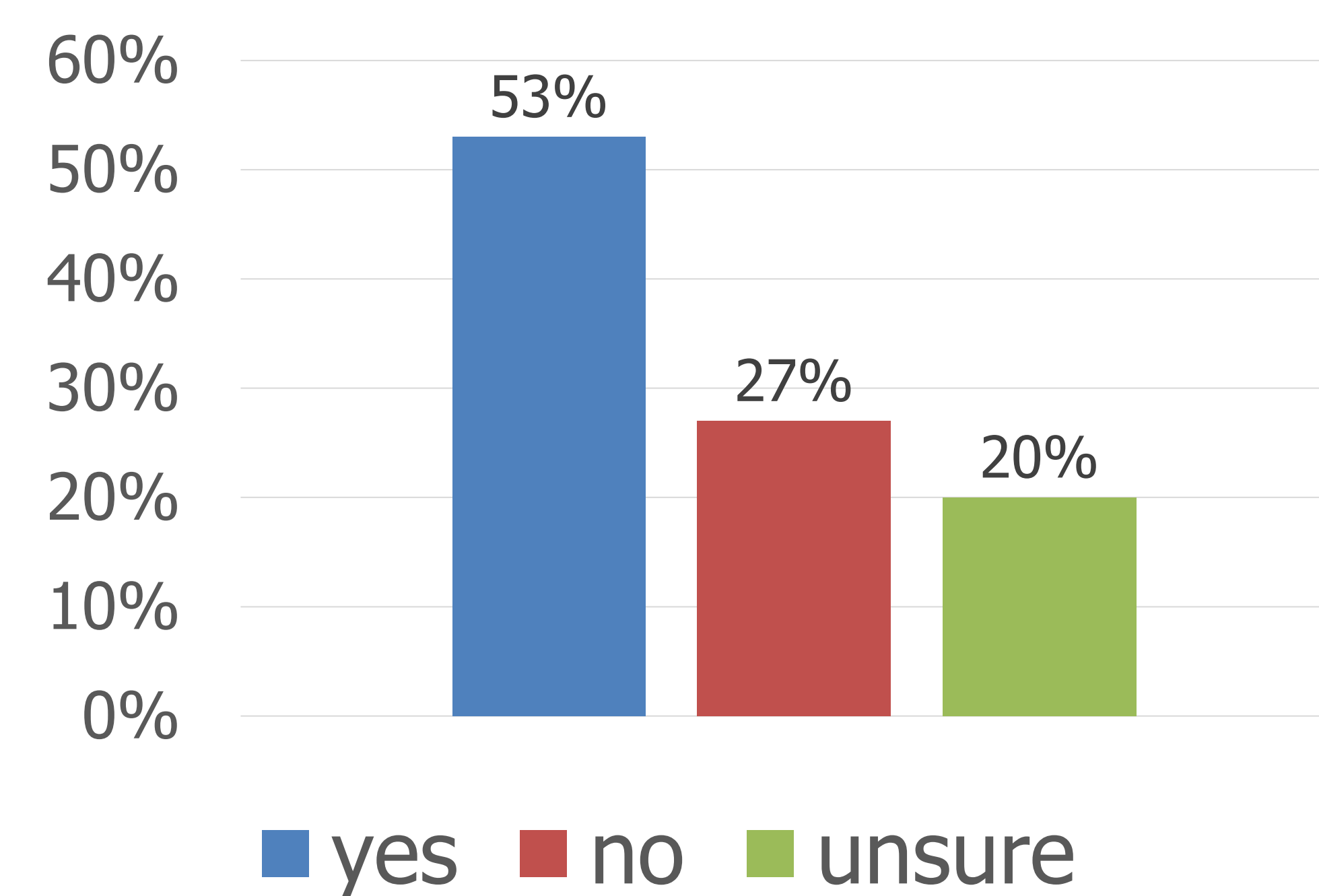
2-tailed P value = 0.0012
95% confidence interval = 0.3 to 1.2

Conclusion

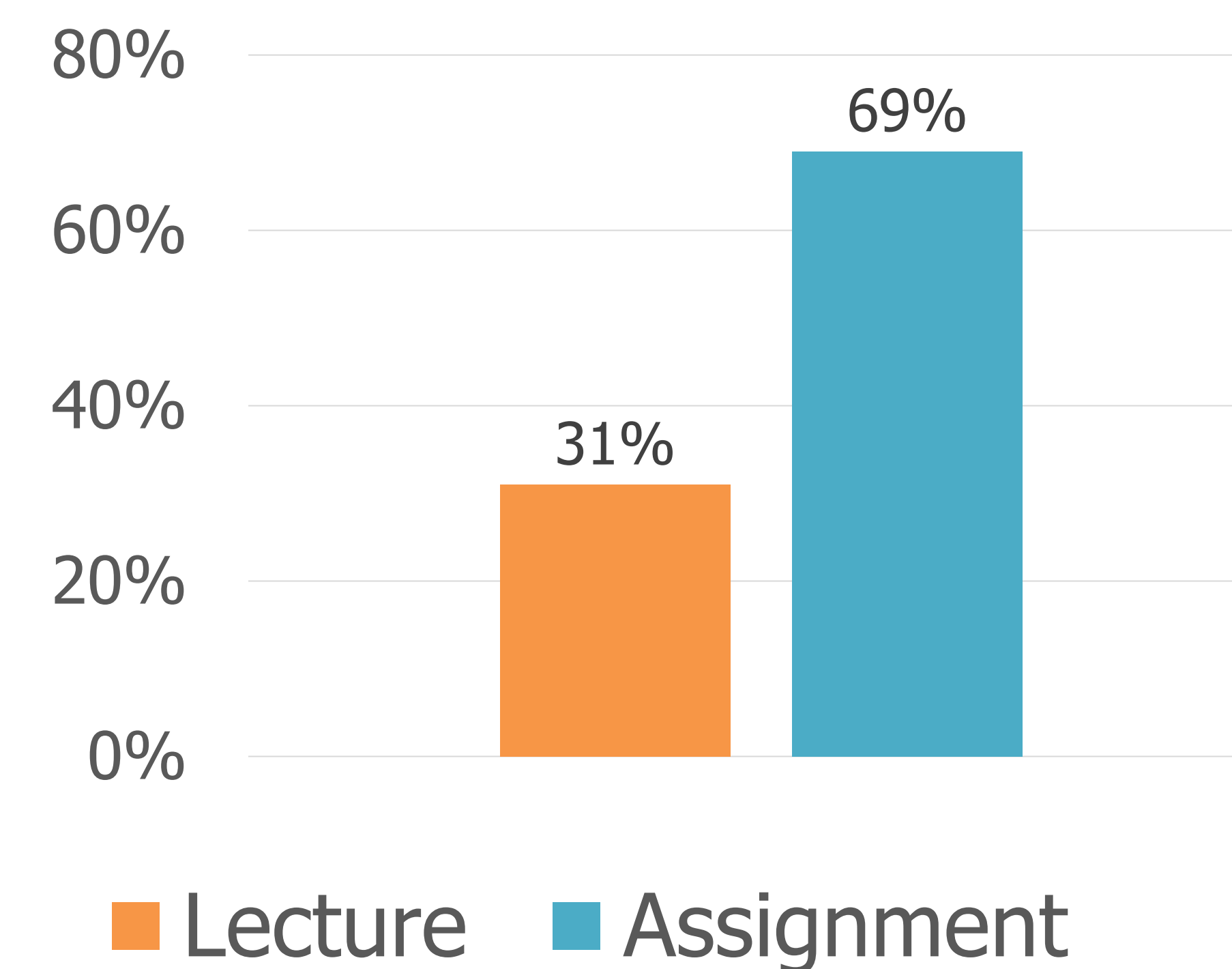
The implementation of the jigsaw method to teach USP <800> proved to be more engaging for students compared to traditional lecture-based instruction. This increased engagement was observed through higher levels of student interaction, collaboration, and overall enthusiasm for the material. Conversely, the test score data indicates that this method did not achieve similar levels of learning comprehension compared to the traditional lecture format. The relevance of this difference, however, had little impact on overall grade.

Results

Assignment helpful for learning USP <800>?



Preference on Teaching Method



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