

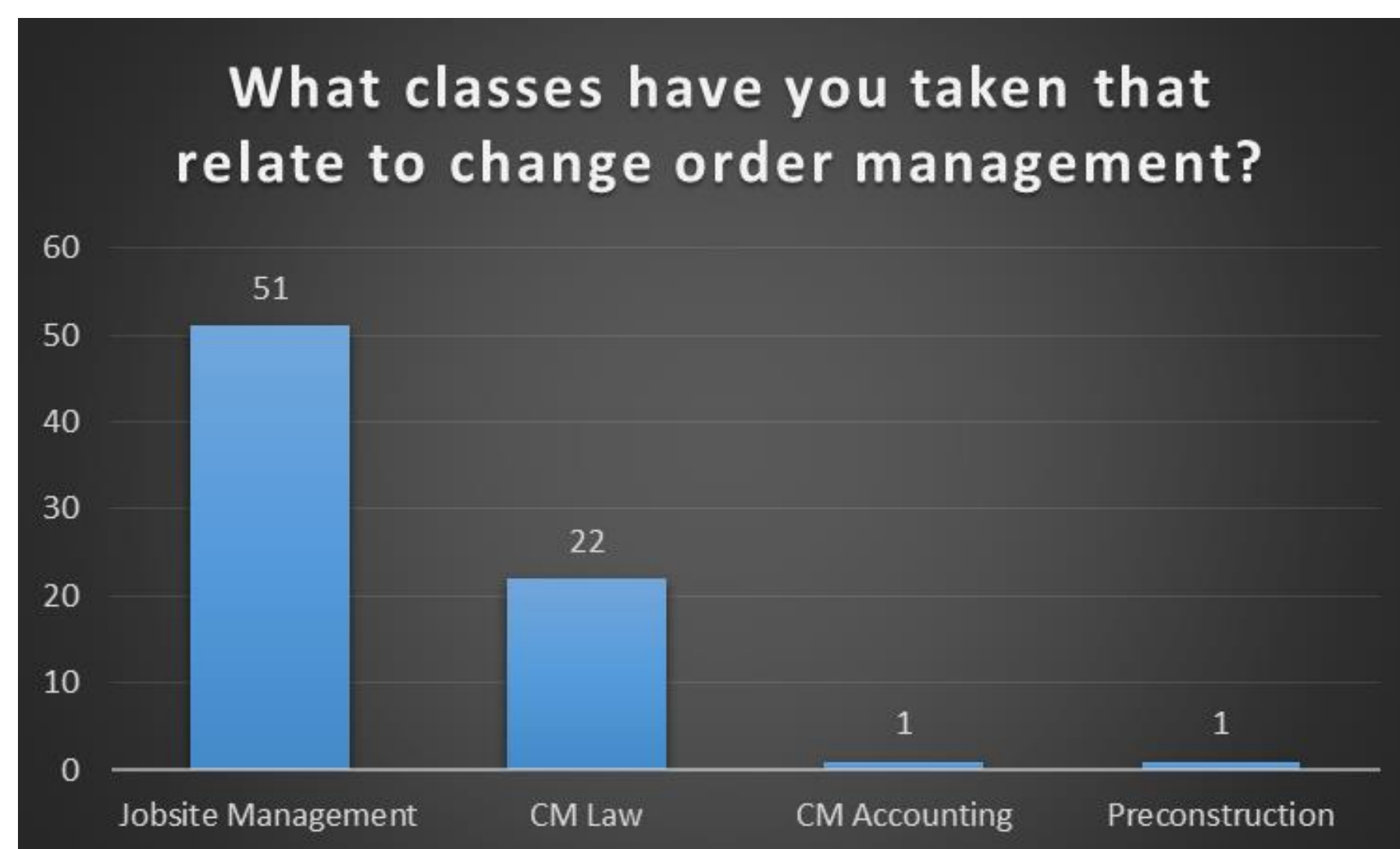
Analysis of Student Understanding of the Change Order Process

Effective project management comes from controlling cost, time, and quality on a project. As construction projects become more complex, changes in the original contract documents will arise due to the nature of human error. How a project manager documents and addresses change events can alter the successfulness of a project. This study attempts to look at senior level construction management major student's understanding of the change order management process. The goal of the study is to ascertain how well the students feel the construction management curriculum prepared them to manage change events in industry. Students were asked to demonstrate their understanding of key aspects to the change order process – requests for information, potential change orders, change order requests, time & material pricing, negotiations and impacts to the schedule. Results indicated that students would like to see the introduction of modules into existing lab curricula to gain a better understanding of change order processes.

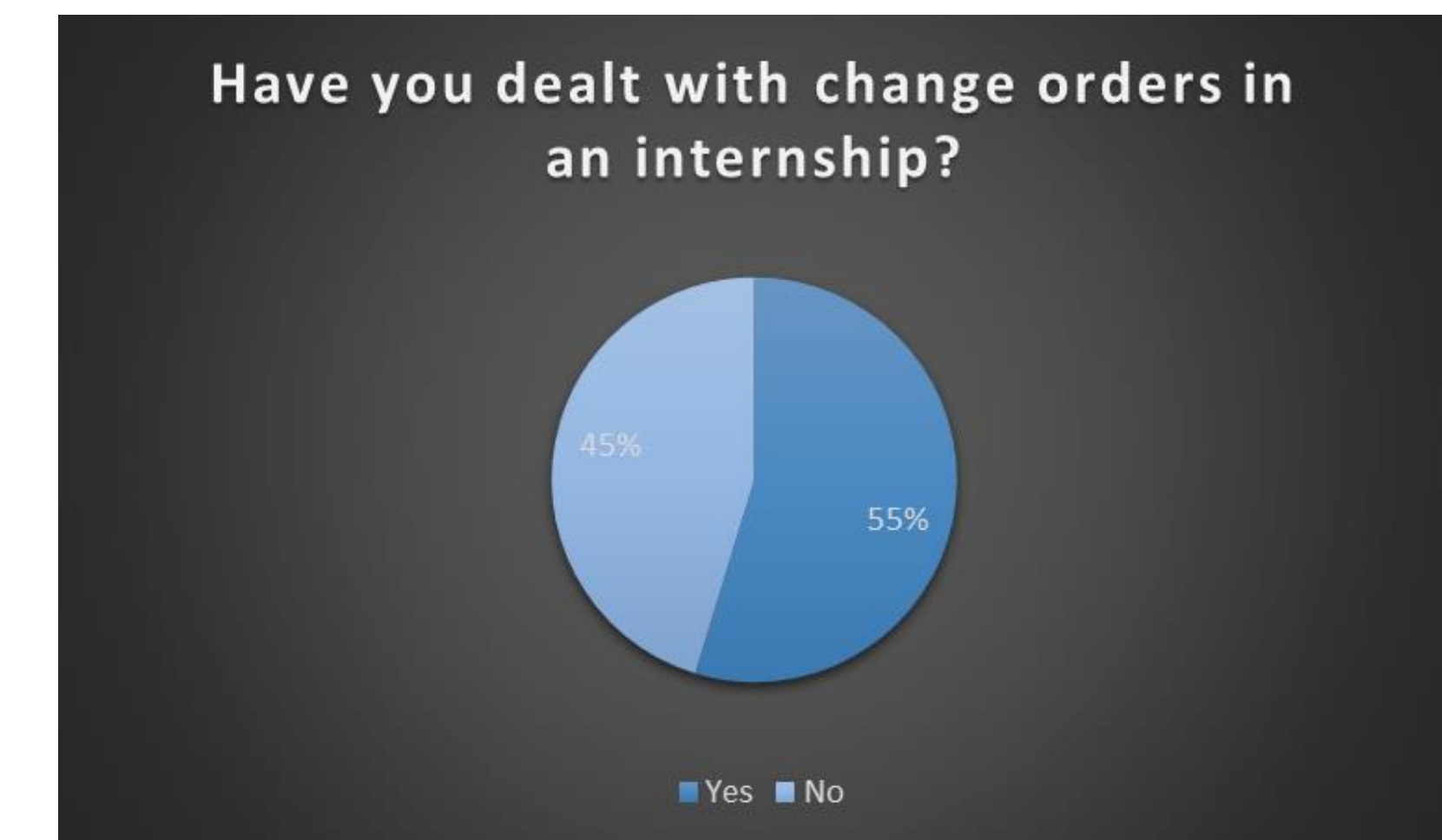
Key Words: Cal Poly, Change order, Construction, Curriculum, Cost



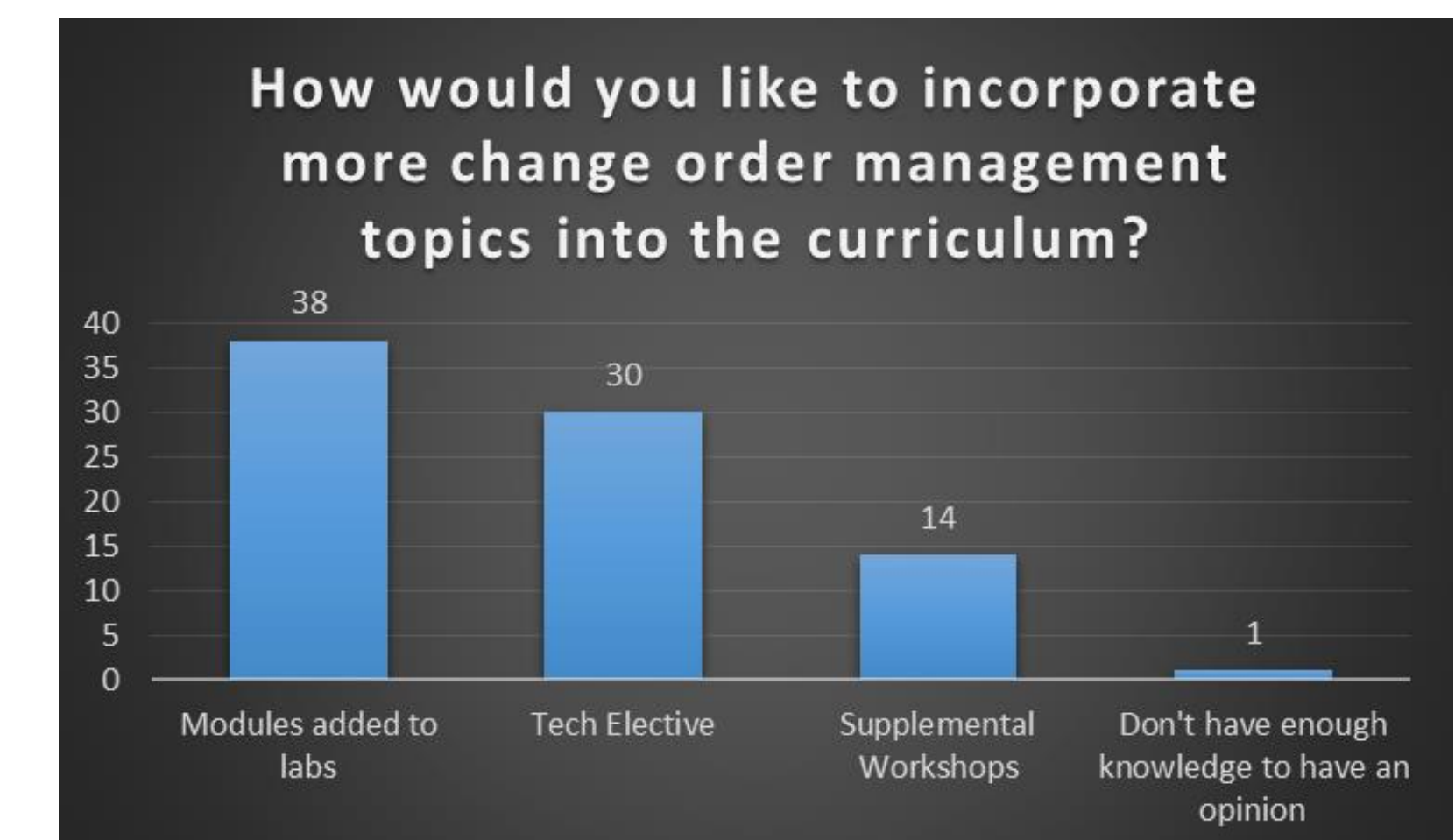
Question #1 addresses how well the students feel prepared to manage change orders in the field. The results show a mix of preparedness through the respondents. A majority of the students, 65%, answered neutral through strongly disagree which suggests that students could use more preparation to feel equipped to manage change orders.



Question #2 addresses which classes the students felt pertained to change order management that they have taken or are currently taking. The results demonstrate a surprising trend of students not relating CM law to change order management. "Yet course learning objective five for the class according to the syllabus states students should be able to summarize contractual change processes." (Starzyk 2018)



Construction management students often complete summer internships in relation to their field. Question #3 takes a look into whether or not students have encountered change orders outside of the curriculum. There was an even response from students on their experience with change orders during their internships.



Question #4 gives the respondents an opportunity to state ways in which the respondent would like to incorporate change order topics into the curriculum. The majority of responses preferred additional modules added into the current labs that are taken during the course of their degree or the addition of a tech elective focusing on change order management.

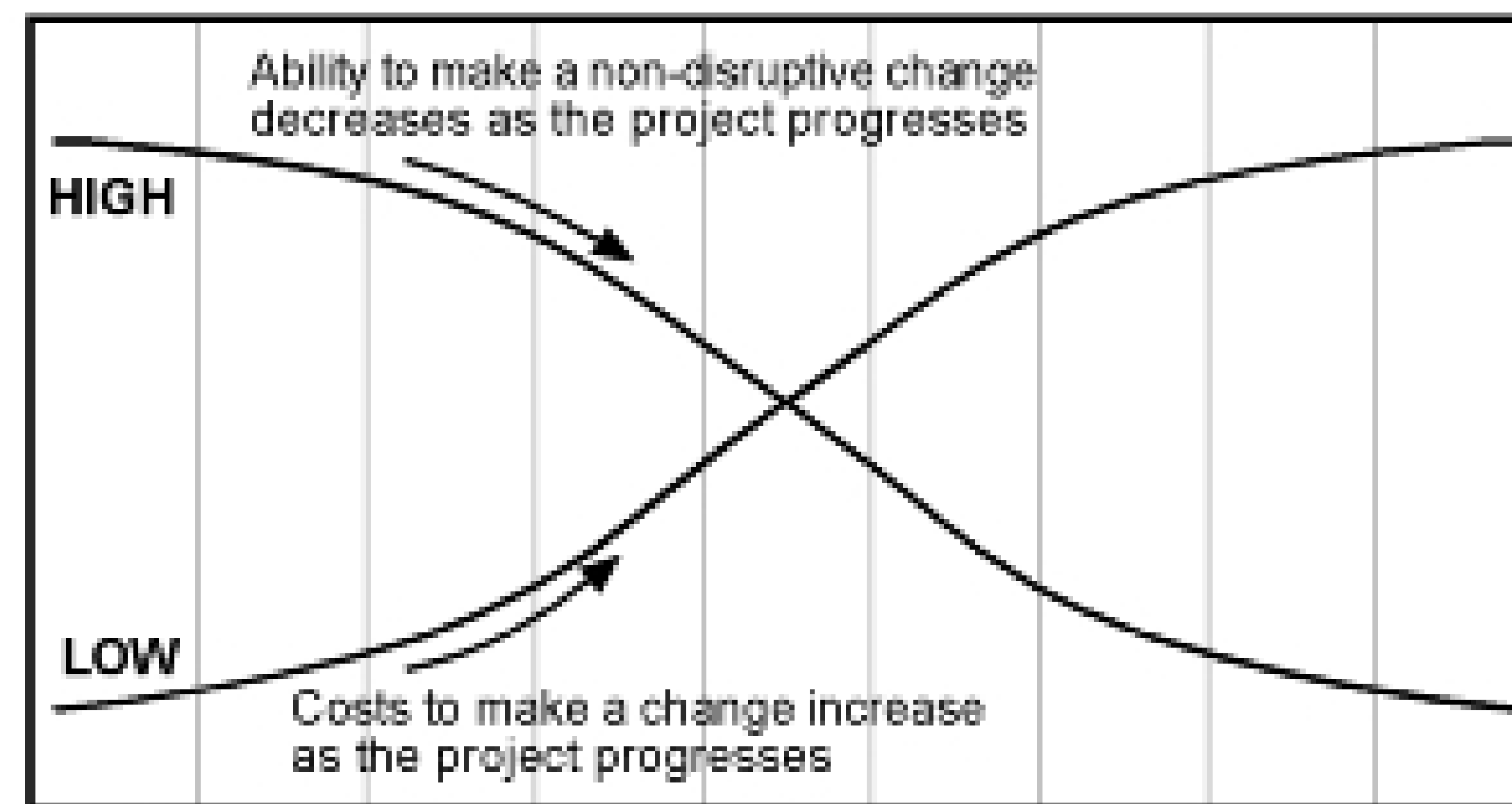


Figure 1

Project Duration

Conclusion

Students' understanding of the change order process could be the result of their prior internship experiences. However, the curriculum can provide guidance on how to address change orders prior to experiencing them in a real life scenario. The overall consensus suggests that there are ways to incorporate more change order topics into the construction management curriculum. Modules can be added into the labs to simulate change order management skills in each of the main industry sectors – residential, commercial, heavy civil, and specialty construction.

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