

Agriculture Education and College Success

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Purpose
The purpose of the study is to determine college students' perceived academic and health benefits of having participated in a high school agriculture program. The goals of the study are to determine which aspects of the ag program, and which years of high school in the ag program, best prepared them.

Research Questions

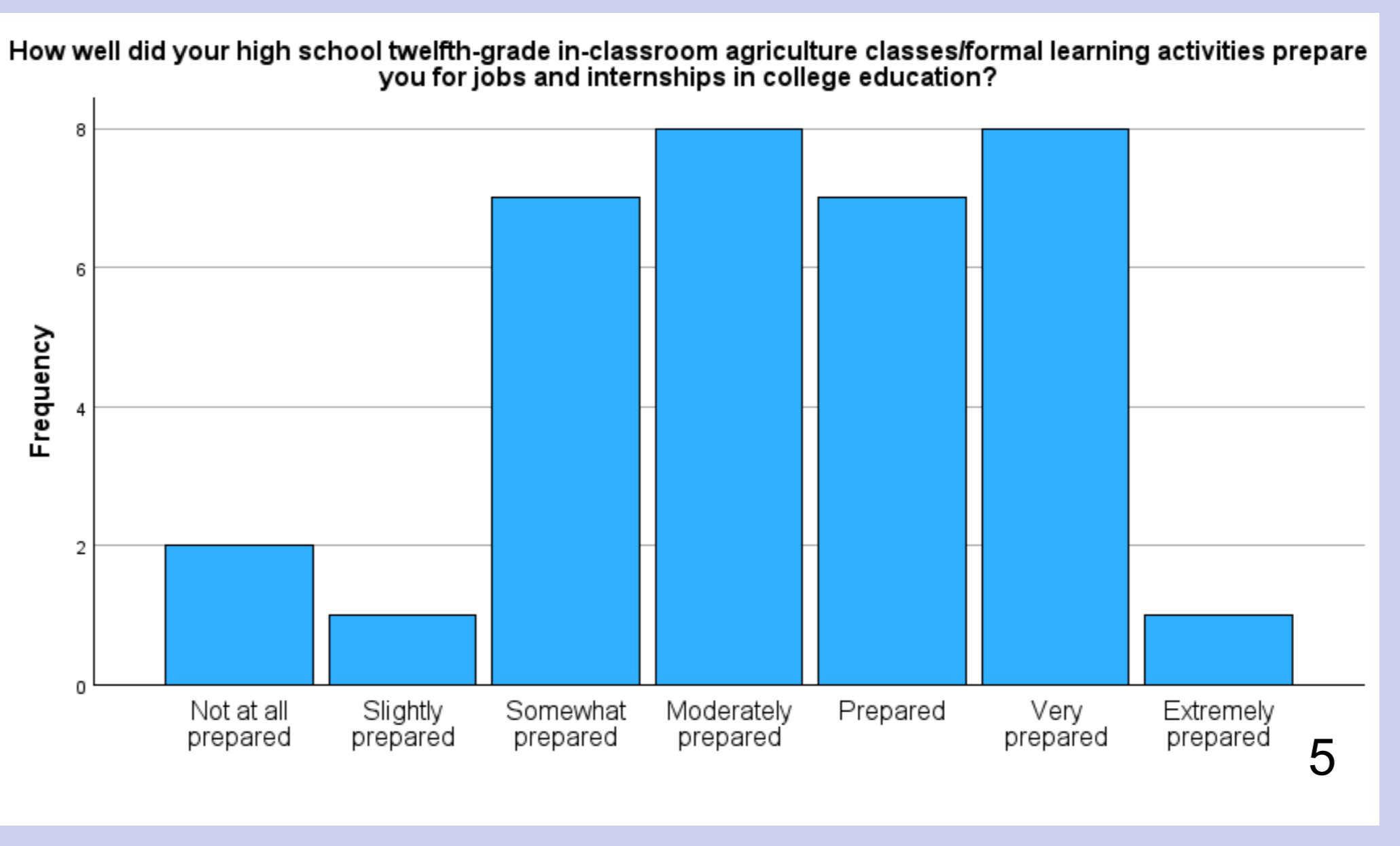
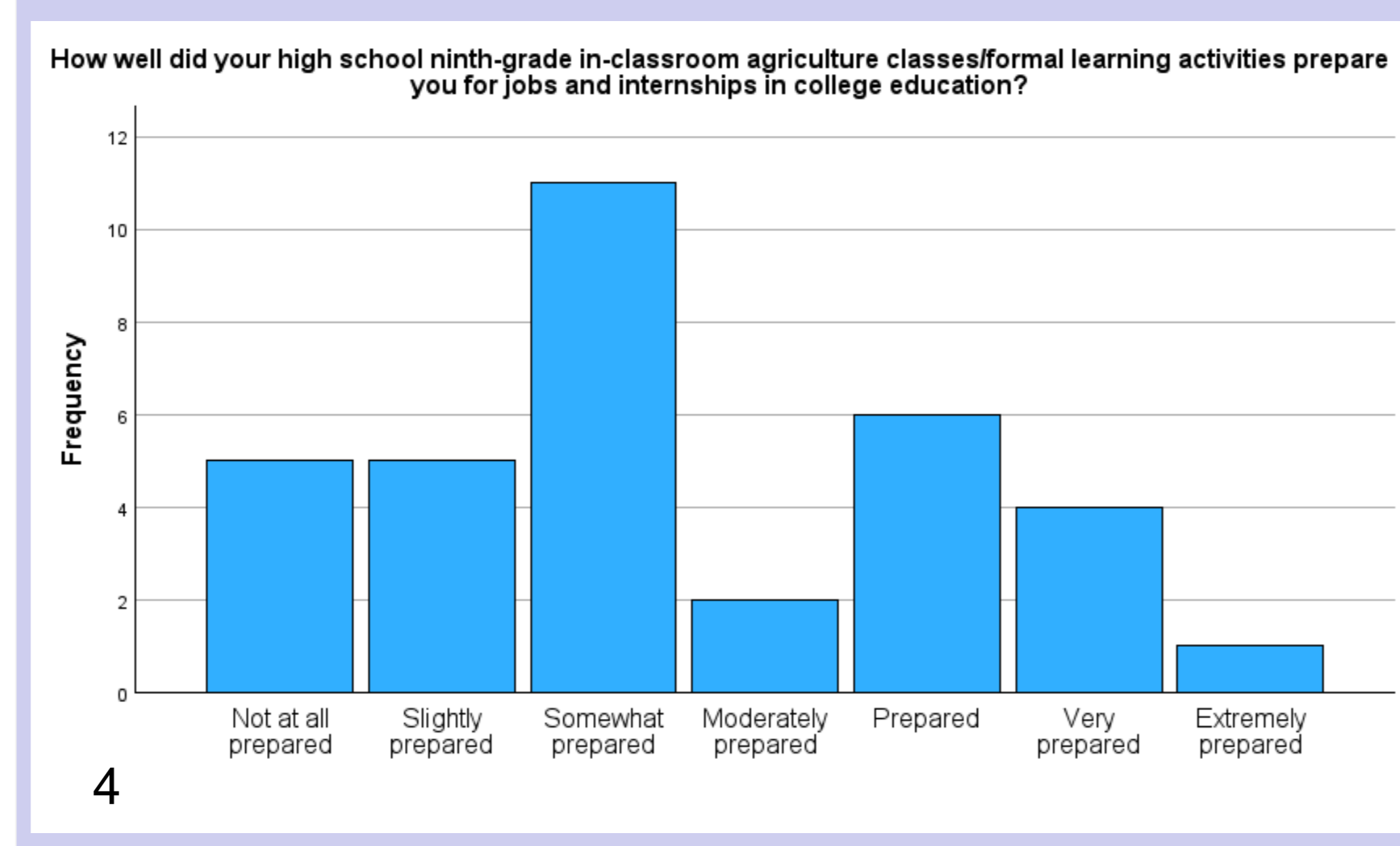
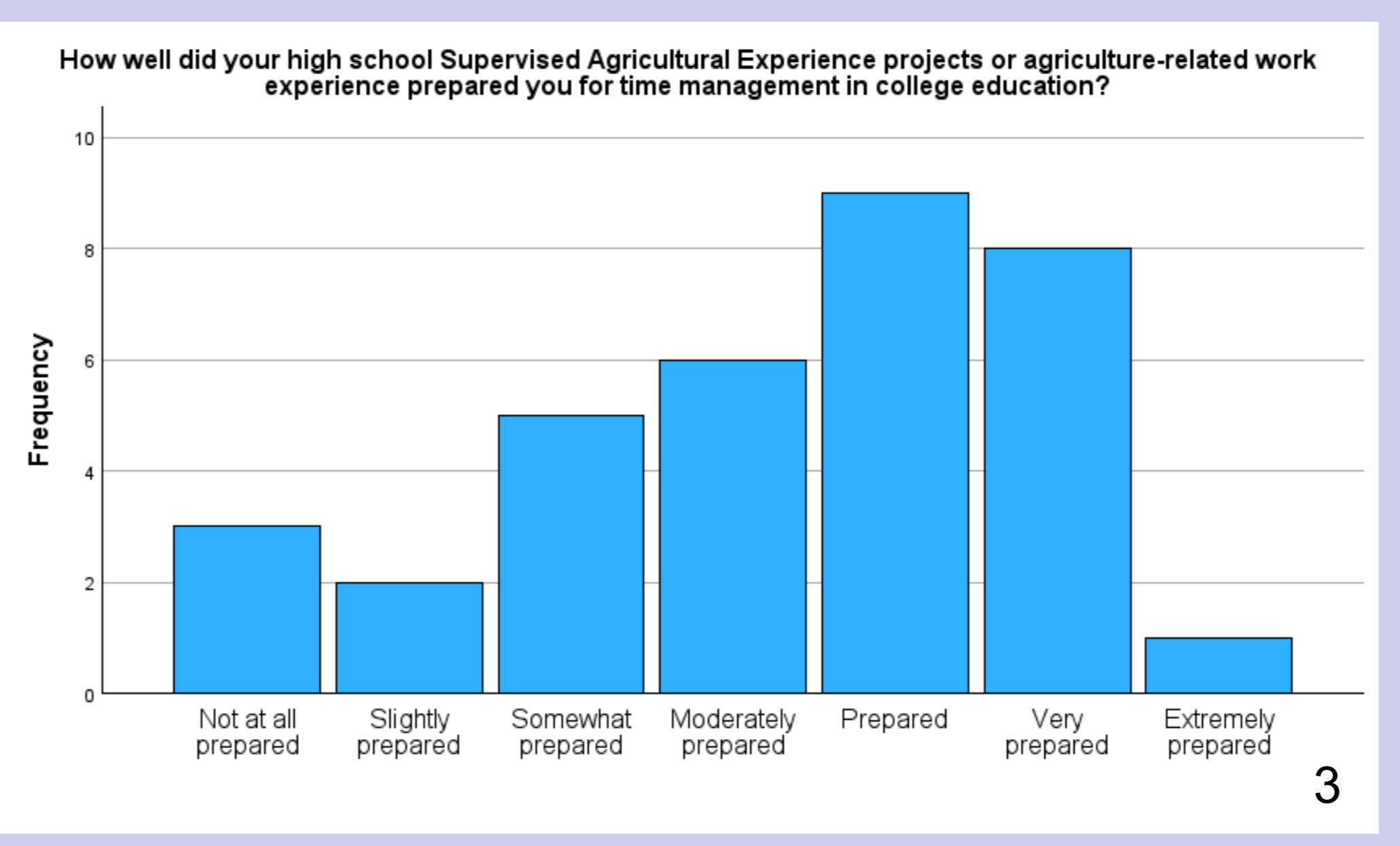
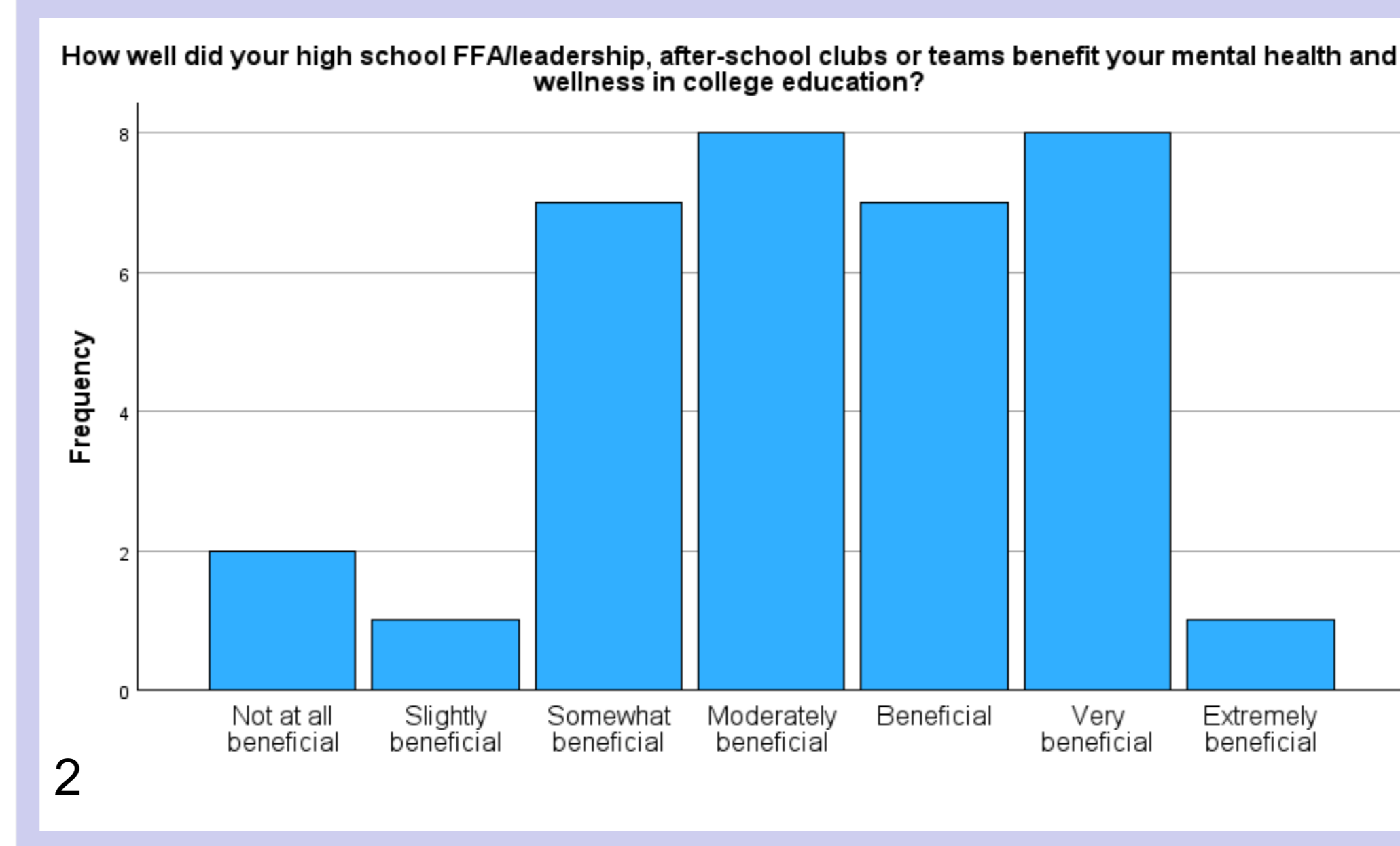
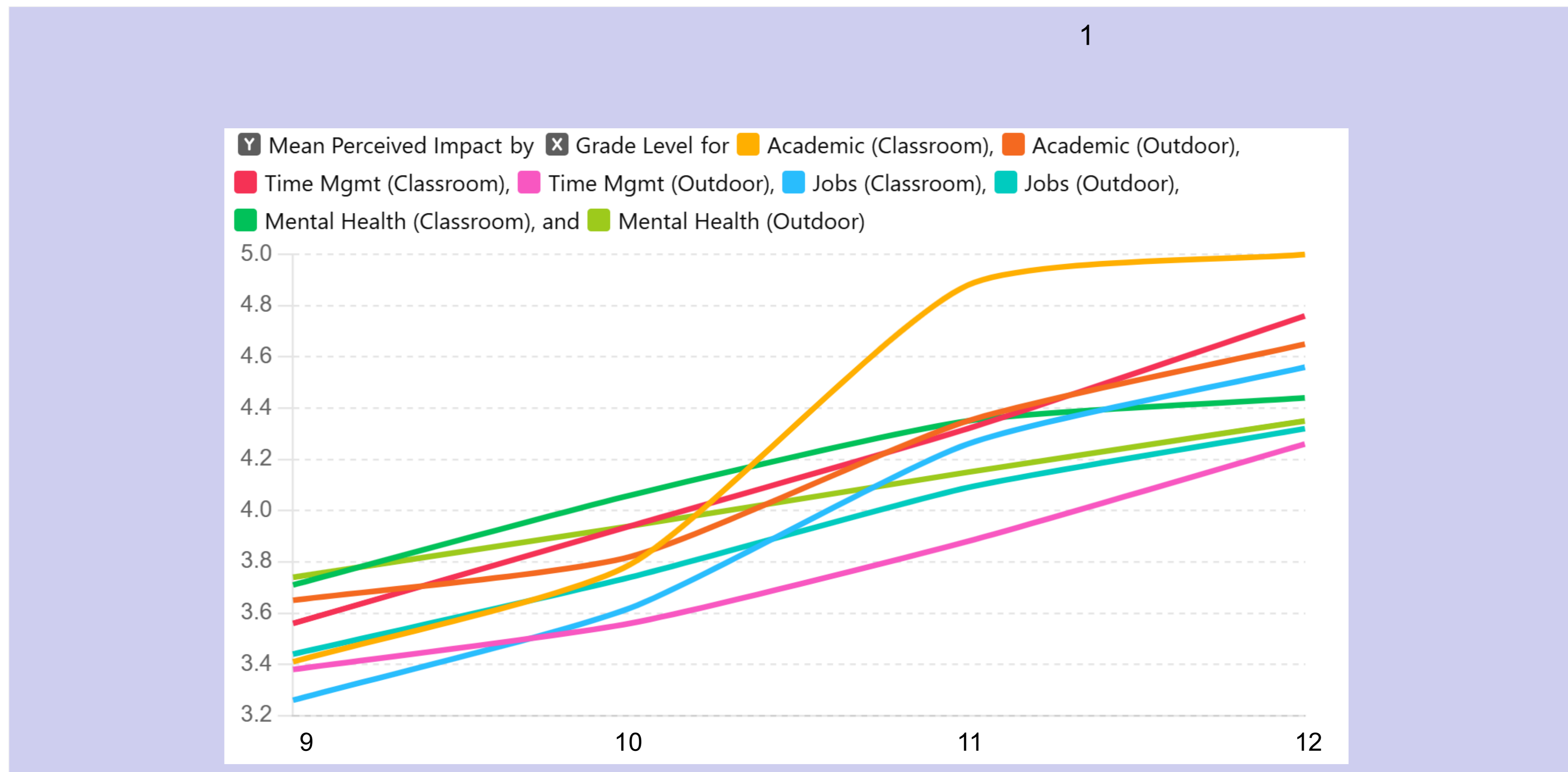
- What aspects of high school Ag programs best prepare students for college?
- What measures of college success did aspects of high school Ag programs prepare students for?

Literature review

- Students perform better on tests (compared to pre-test) in outdoor education activities (Tas & Gulen, 2019)
- Students that participated in a youth agriculture program had a better academic performance in college than their peers. (Ball et al., 2001).
- Ag programs mirror Model Based Inquiry, a method of instruction popular in STEM classrooms for grounding instruction in real world applications (Windschitl et. al., 2008)

Methods

- Online survey distributed through Qualtrics
 - Participants were asked to rate how their Ag program in-classroom instruction, outdoor instruction, leadership, and SAE, throughout high school prepared them for exams and classwork, time management, mental health and wellness, and jobs and internships on a scale from 1, meaning they *did not feel prepared* at all, to 7, meaning they felt *extremely prepared*.
 - Survey was distributed through the UConn CAHNR Daily Digest and sent to professors in CAHNR.
- Participants were current UConn students who attended an Agriculture program in high school.
 - Participants were screened in the survey by confirming they were in an Ag program and providing what their program concentration and SAE type were. Participants that were unable to provide this information were excluded from data analysis.
 - Participants were rewarded with a \$5 Amazon E-gift card and entered in a raffle to earn a \$25 Amazon E-gift card.



Results Key

1. Mean perceived impact by each category over HS grades
2. How FFA/Leadership benefit mental health in college
3. How SAE/work experience prepare for time management in college
4. How 9th grade in-class activities prepare for jobs and internships in college
5. How 12th grade in-class activities prepare for jobs and internships in college

Limitations of Study

- Final participant pool was 34 current UConn students. Many submissions had to be removed since they were not in HS Ag programs.
- Most participants that completed the survey were current Ag students at the college level. Only 6 participants were not in the college of agriculture.

Discussion

- In classroom and formal learning activities prepared students most for exams and classwork.
 - In classroom activities prepared students more for different aspects as the grades increased. Students felt more prepared for jobs and internships in their twelfth grade in-class activities compared to their ninth grade. This may be because typically, upperclassman Ag classes place students on career tracks – large animal, pre-vet, plant science, biotechnology, etc..
- FFA/leadership activities, after school clubs, and teams, greatly benefited participants mental health and wellness in college.
- SAE or ag-related work activities prepared students for time management in college.
- Impact of Ag education on college success for students not perusing a degree in ag related fields needs more research.

References

Tas, E., & Gulen, S. (2019). Analysis of the influence of outdoor education activities on seventh grade students. *Participatory Educational Research, Peer Reviewed Academic Journal*, 6(2) 122-143. <http://dx.doi.org/10.17275/per.19.17.6.2>

Ball, A. L., Garton, B. L., & Dyer, J. E. (2001). The influence of learning communities and 4-H/FFA participation on College Of Agriculture students' academic performance and retention. *Journal of Agricultural Education*, 42(4), 54–62. <https://doi.org/10.5032/jae.2001.04054>

Windschitl, M., Thompson, J., & Braaten, M. (2008). Beyond the scientific method: Model-based inquiry as a new paradigm of preference for school science investigators. *Science Education*, 92(5), 941-967. <https://doi.org/10.1002/sce.20259>