

A comparative UG near-peer mentoring model, for motivating school students towards innovations, during E-STEM education

- A case study of Qatar

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ABSTRACT

- A novel UG near-peer mentoring educational model, involving 56 students (middle school & high school) and 16 QU-UG secondary mentors.
- Online STEM course was implemented for school students (mentees) involving QU-UG mentors.
- UG mentors consistently motivated the school students by encouraging, appreciating, helping, and interacting (rapport).
- Finally, comparison between the level of motivation required for high school & middle school students were studied and it was found that middle school students required more motivation. And, this could be probably due to their technical acquaintance with the online mode.

RESEARCH AIM and OBJECTIVES

To explore the underling process contributing to the success of this UG near-peer mentoring model by understanding the exceptionally resilient bonding between the UG mentors-school student mentees. The following research questions were addressed:

- How did UG mentors asynchronously & emotionally attached with the student mentees to motivate them?
- Comparison between the interactions of UG mentor-middle school students and UG mentor-high school students. ?

METHODOLOGY

Groups were created involving UG mentor, students, STEM experts (22 groups) to execute the program

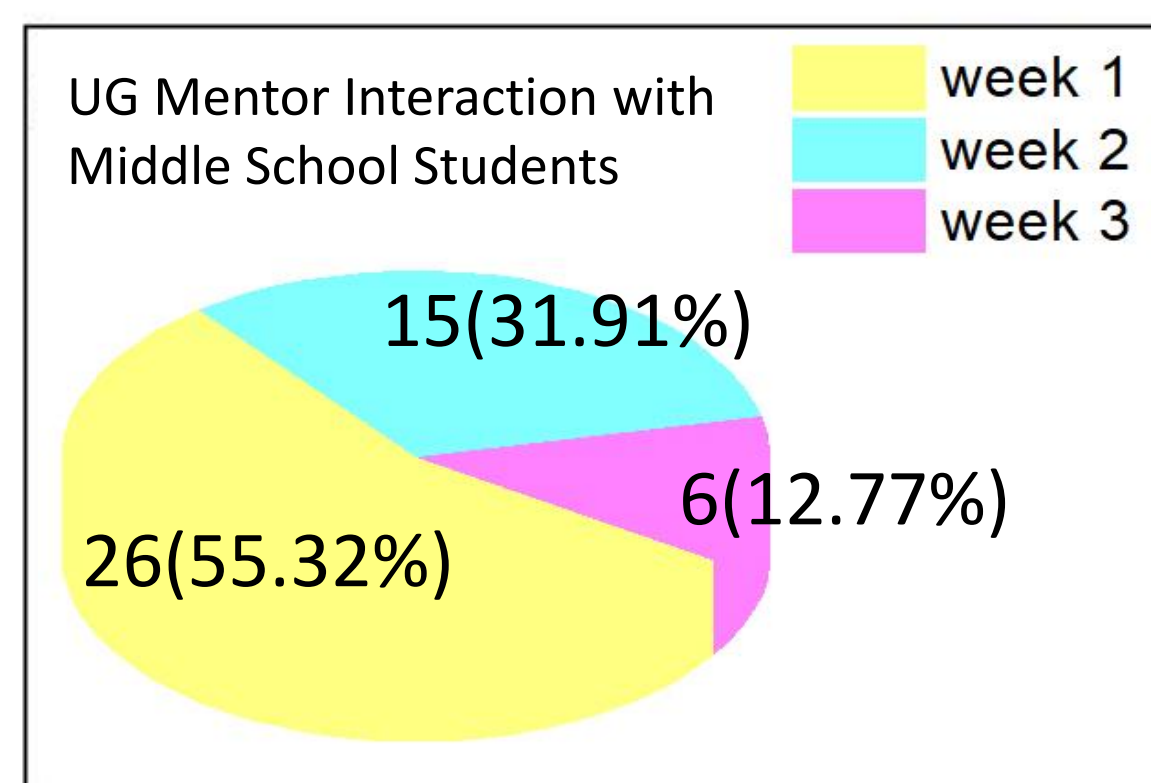
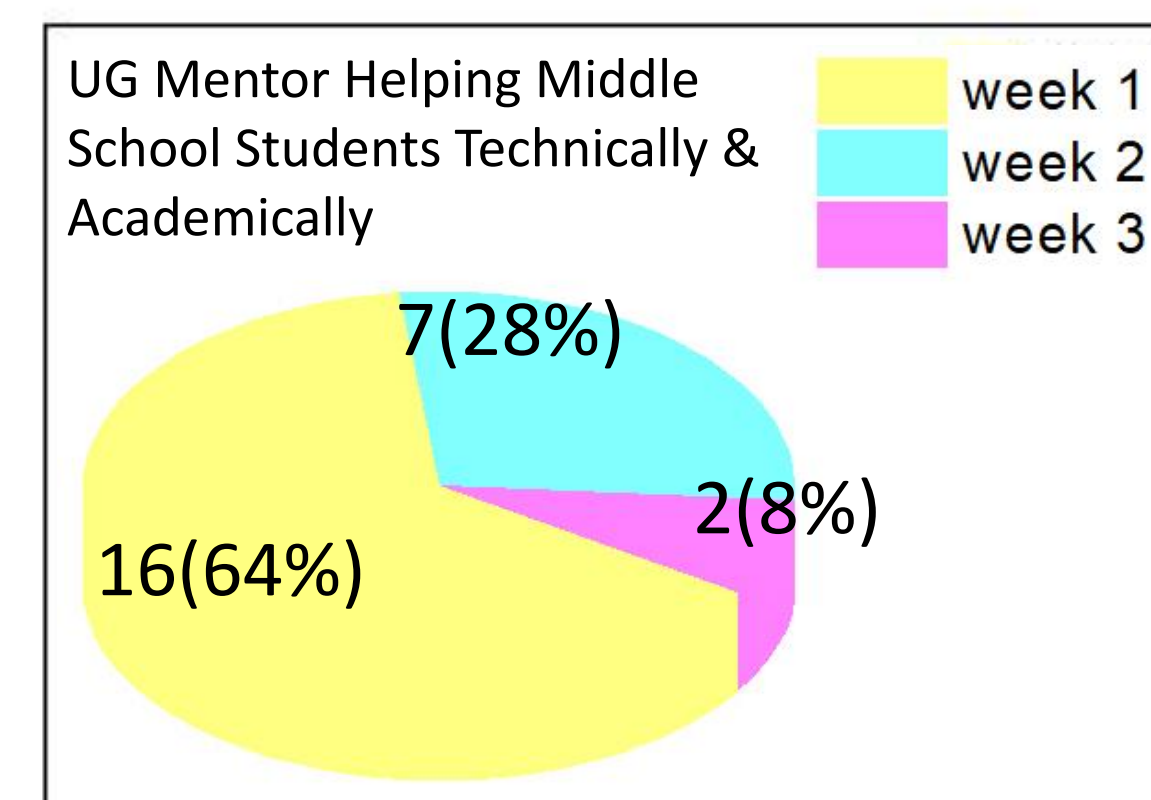
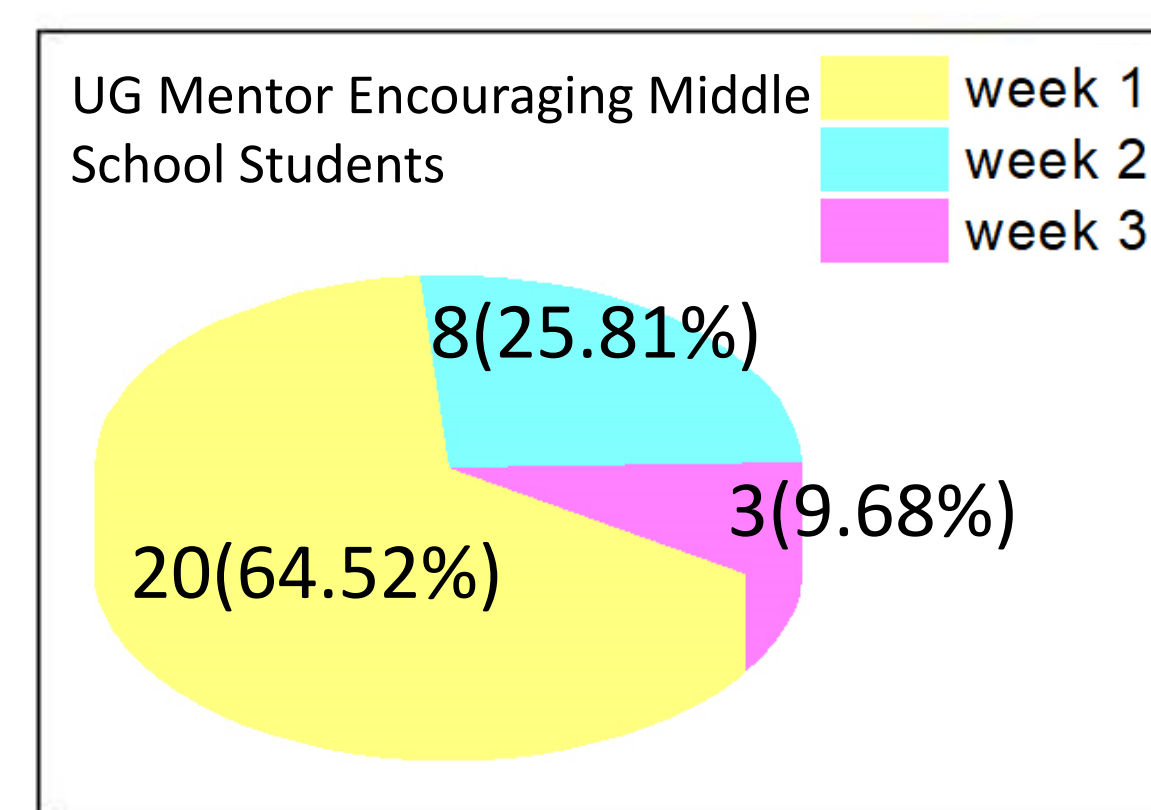
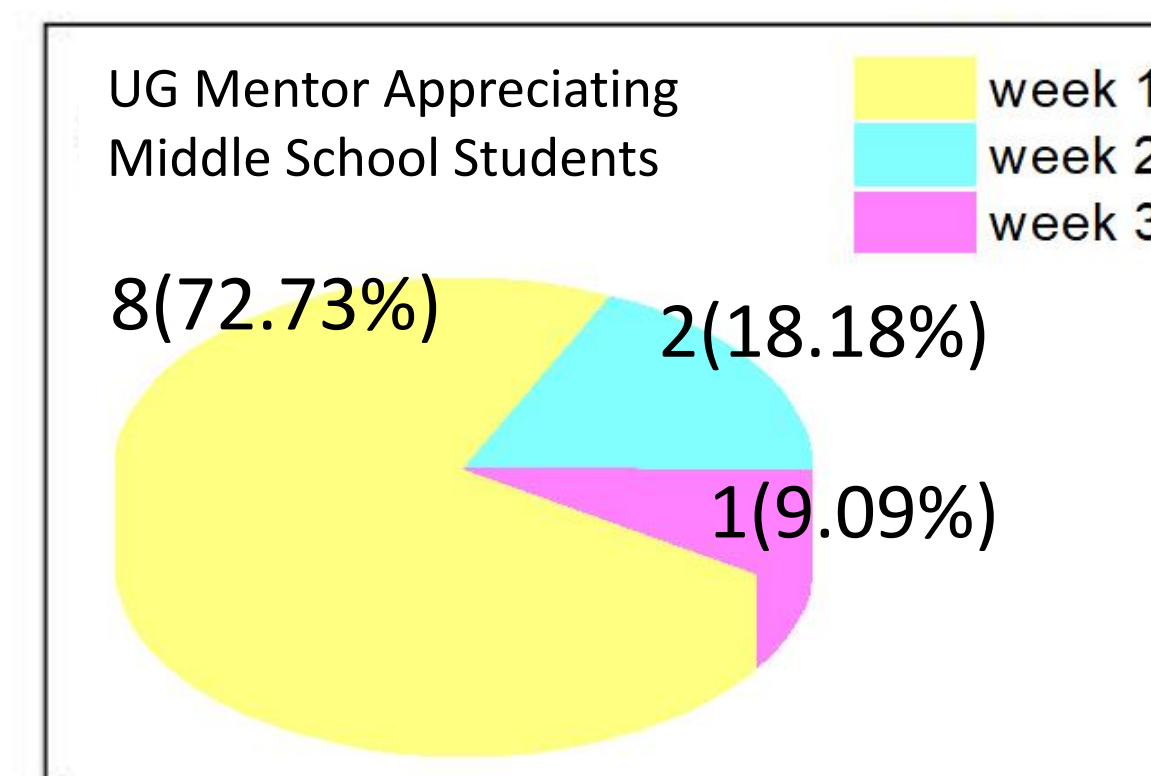
UG mentor- students interactions were investigated via text message transcripts

Color coding were assigned to explore various roles of UG mentor such as UG mentor encouraging, appreciating, helping, & emotionally bonding with the students

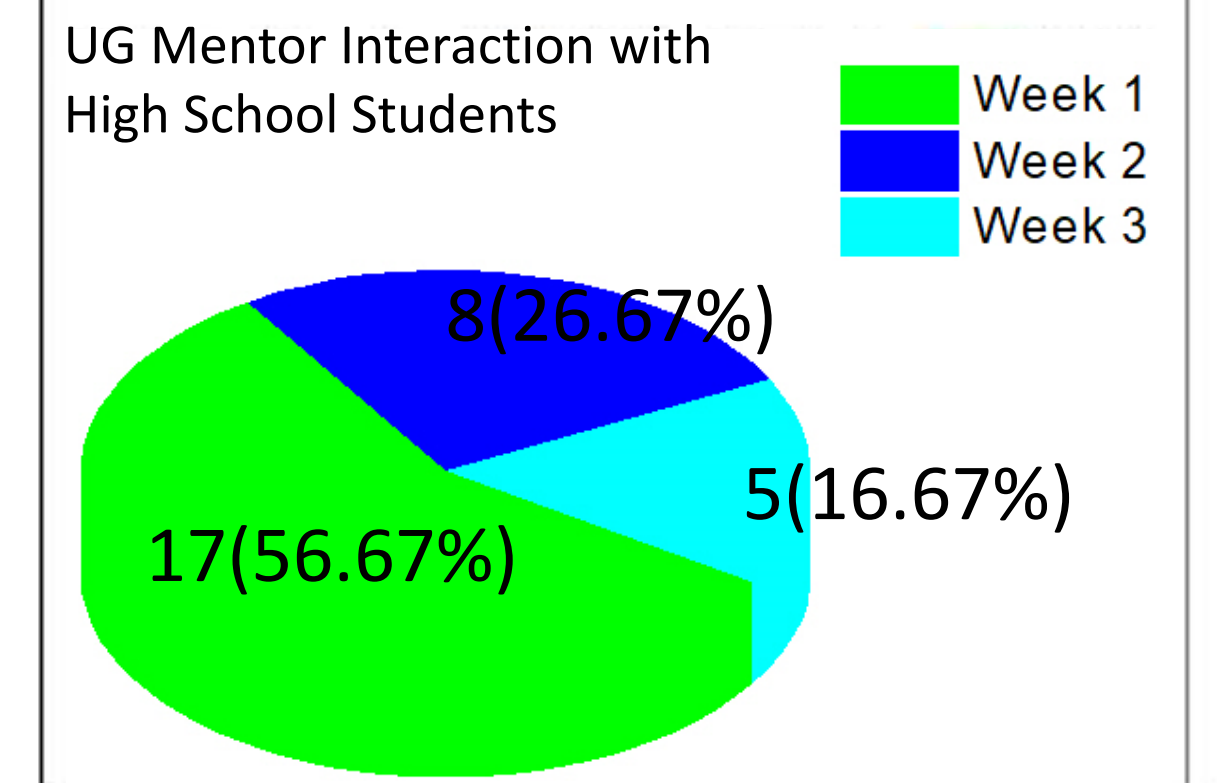
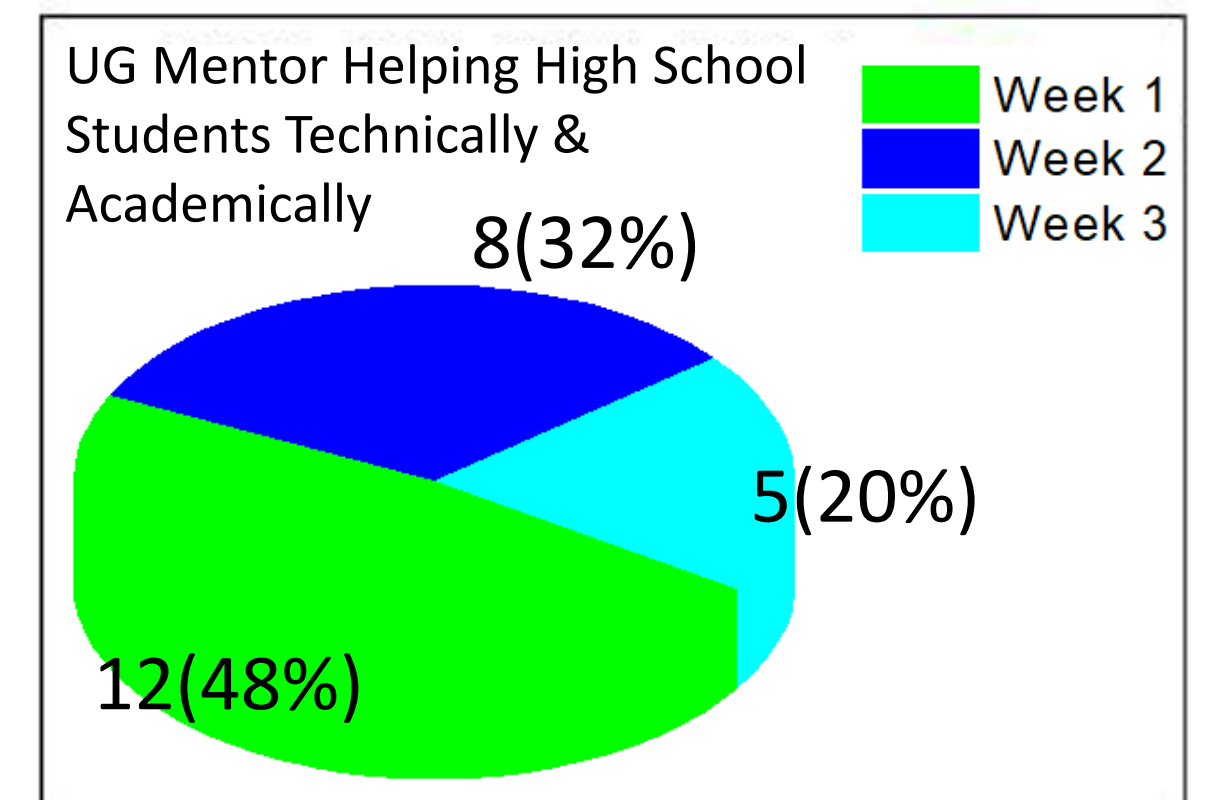
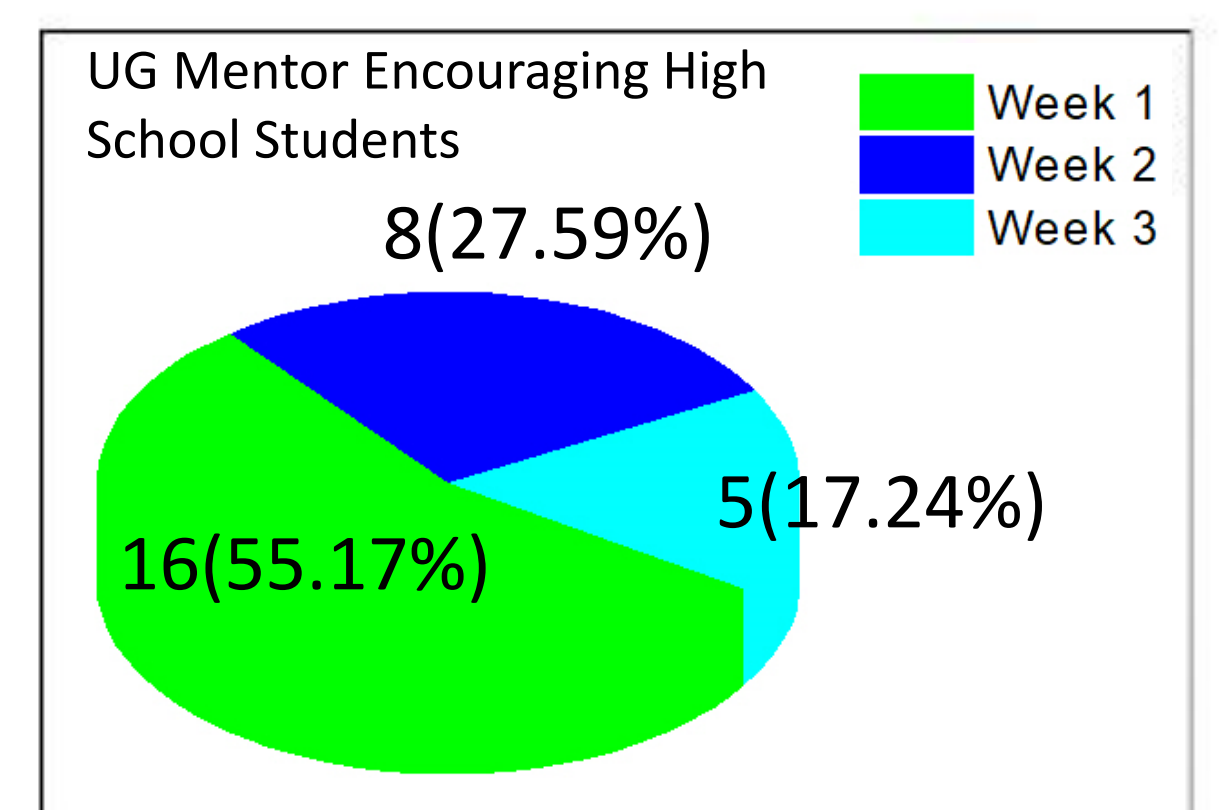
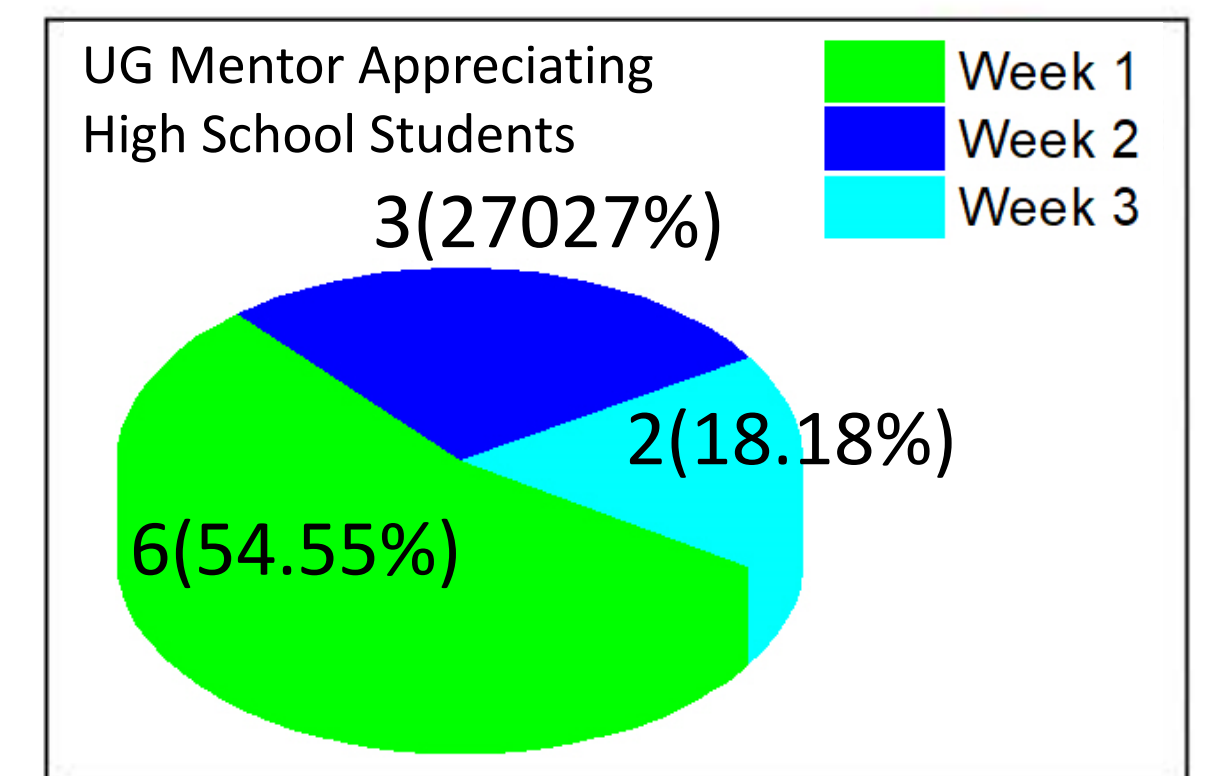
The messages were counted and graphs were plotted to see the comparison between the interactions of UG mentor-middle school students and UG mentor-high school students.

RESULTS & DISCUSSION

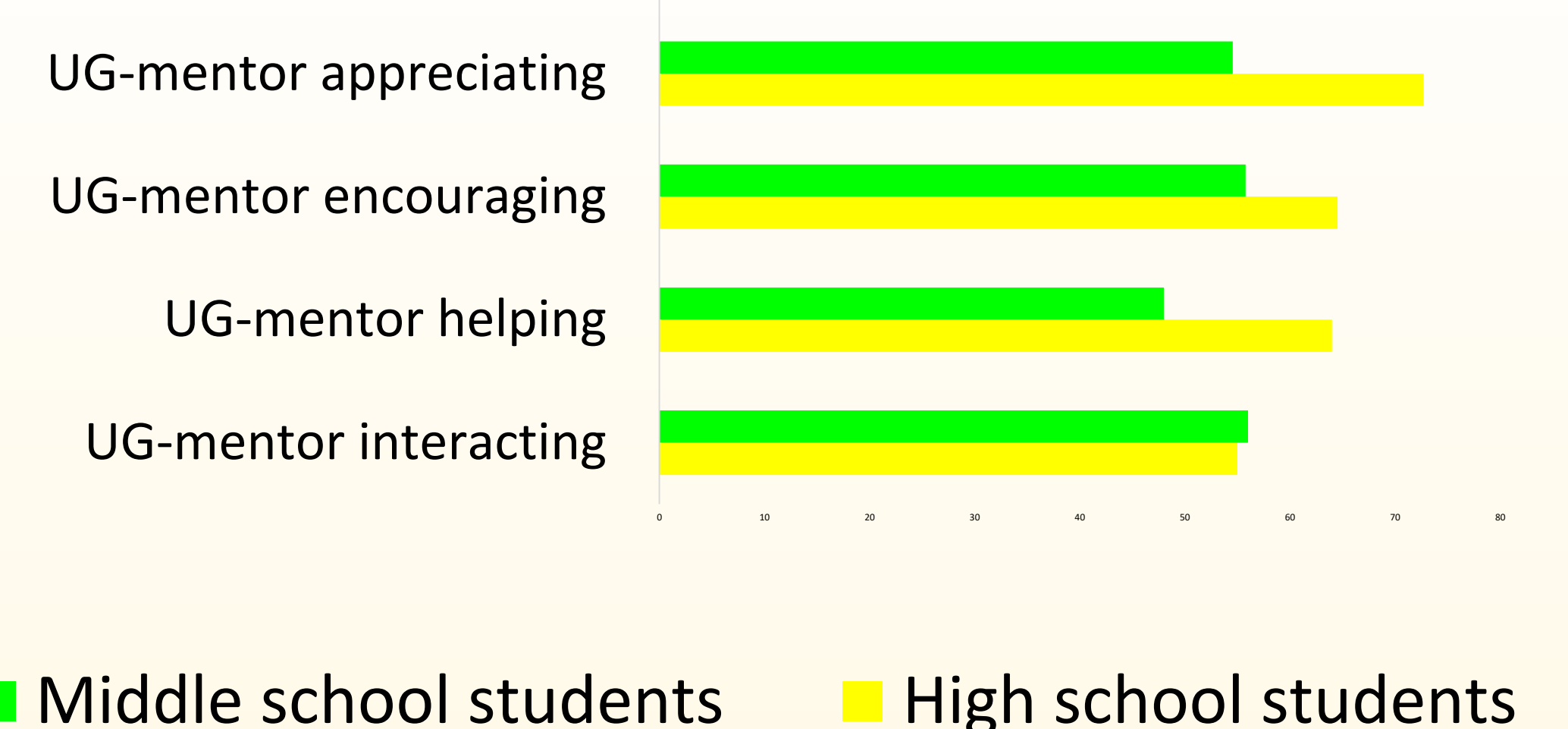
UG Mentor- Middle school students



UG Mentor- High school students



Comparison between the interactions of UG mentor-middle school students & UG mentor-high school students.



CONCLUSION

- Emotional bonding between UG mentors- students mentees has been shown.
- Various role of UG mentor has been revealed. they consistently motivated, encouraged, appreciated, helped the students. Thereby, ignited them to be self-sufficient and self regulatory for their learning in the following week.
- Middle school students were required to be motivated more when compared to high school students.

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