

Exploring Student- Perceived Confidence and Ability: Association with Performance

Literature review on confidence and
gaining skills

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Background



Academic Year 2022/2023 - involved in Community of Practice focused on Equity in Assessment



Fueled the desire to study students' perceived self-confidence levels



Focused on second year OTD students taking two classes focused on neurological anatomy and neurorehabilitation



Course 318 focused on the practical application of neurocognition and implications for OT.



Course 319 focused on neurological structures, memorization, CNS function, neuroscience concepts and clinical presentation.

Overview of Research

318 Neurological & Cognitive Challenges

- Cognition
- Interventions
- Application to clinical role

319 Functional Neuroscience

- Structures of CNS
- Memorization
- Function of Structure
- Intervention

Overview of Research



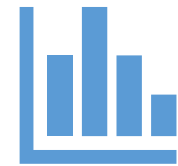
Self-reflection surveys for students to assess their perceived confidence levels using Likert scale questions



3 questions were repeated between both courses on each survey



Students took survey at the beginning of class and then engaged in various class activities to supplement learning



Week 1 and Week 15 surveys gathered qualitative and quantitative data

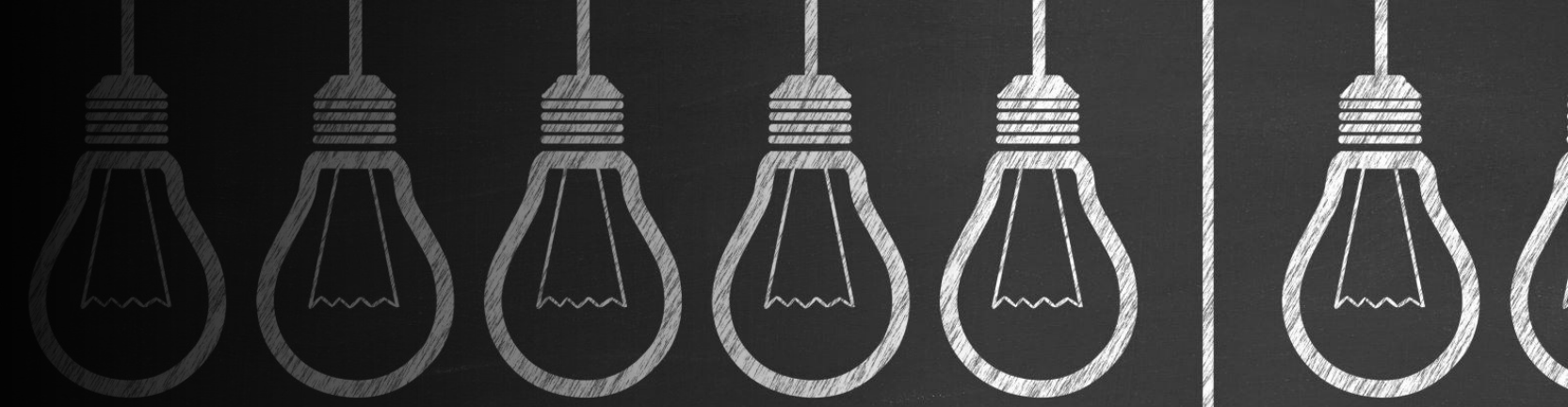
Active Learning Activities Implemented

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- Weekly readings focused on evidence-based practice
- Small group and entire class discussions
- Hands on skills training
- Lab worksheets
- Weekly SoftChalk modules

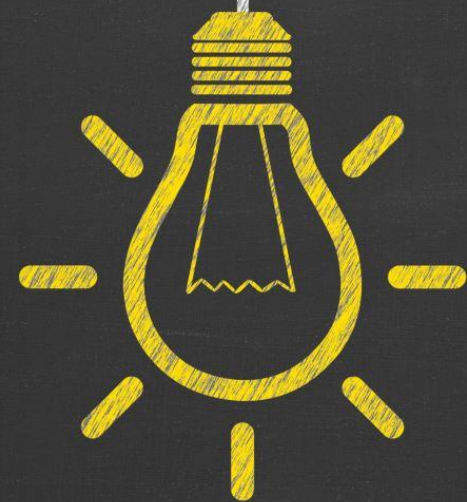
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- VR
- Small group activities
- Student leaders/instructor
- Worksheets
- Videos
- Think/Pair/Share



Literature Review

Discussing research on confidence
and skill acquisition



Literature Review

- Hodgetts et al. (2007) found that occupational therapy students and recent graduates felt that they lacked confidence in their technical skills and intervention skills. They felt that their education was satisfactory, but it took 6 months to two years to feel as though they were confident in practice skills.
- Feelings of disconnect from didactic work to clinical care.
- This gap in the literature drove our need to address confidence during the students' educational journey.
- Nuhfer and Knipp (2003) found that use of "knowledge surveys" focused on confidence levels improved classroom organization and preparation which helped to improve student performance
- Use of these knowledge surveys can allow instructors to better tailor classroom activities to the needs of the students



Attitudes of Graduate Students

Exploring graduate students' perceived ability to learn

Thriving & Confidence



GRADUATE STUDENTS TEND TO
EMBRACE THE NOTION OF ACTIVE
INVOLVEMENT IN THEIR EDUCATION.



INTERPERSONAL RELATIONSHIPS IMPACT
THEIR PERCEIVED CONFIDENCE AND
SUPPORT IN LEARNING

Perceived Confidence & Learning Experience

Students' perceptions of ability to learn increase with active learning activities

Positive learning environment impacts students' perceptions of success

Active learning emphasizes student participation in activities rather than engagement with only instructor and information

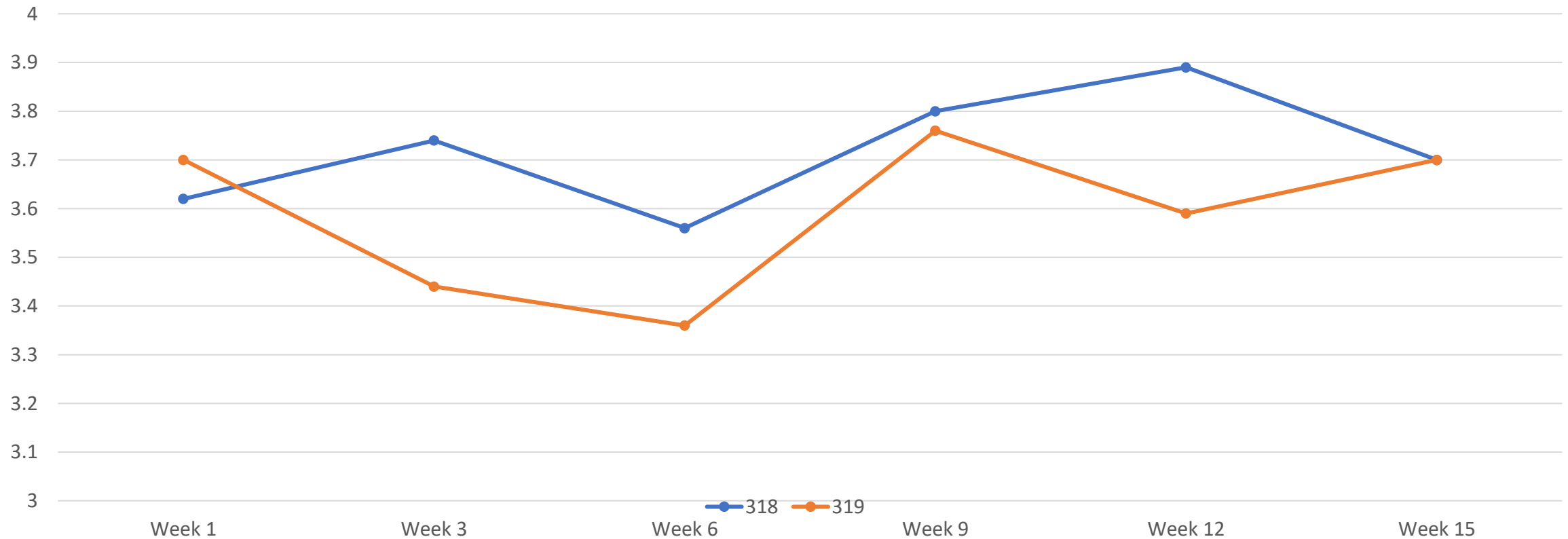


Data Presentation

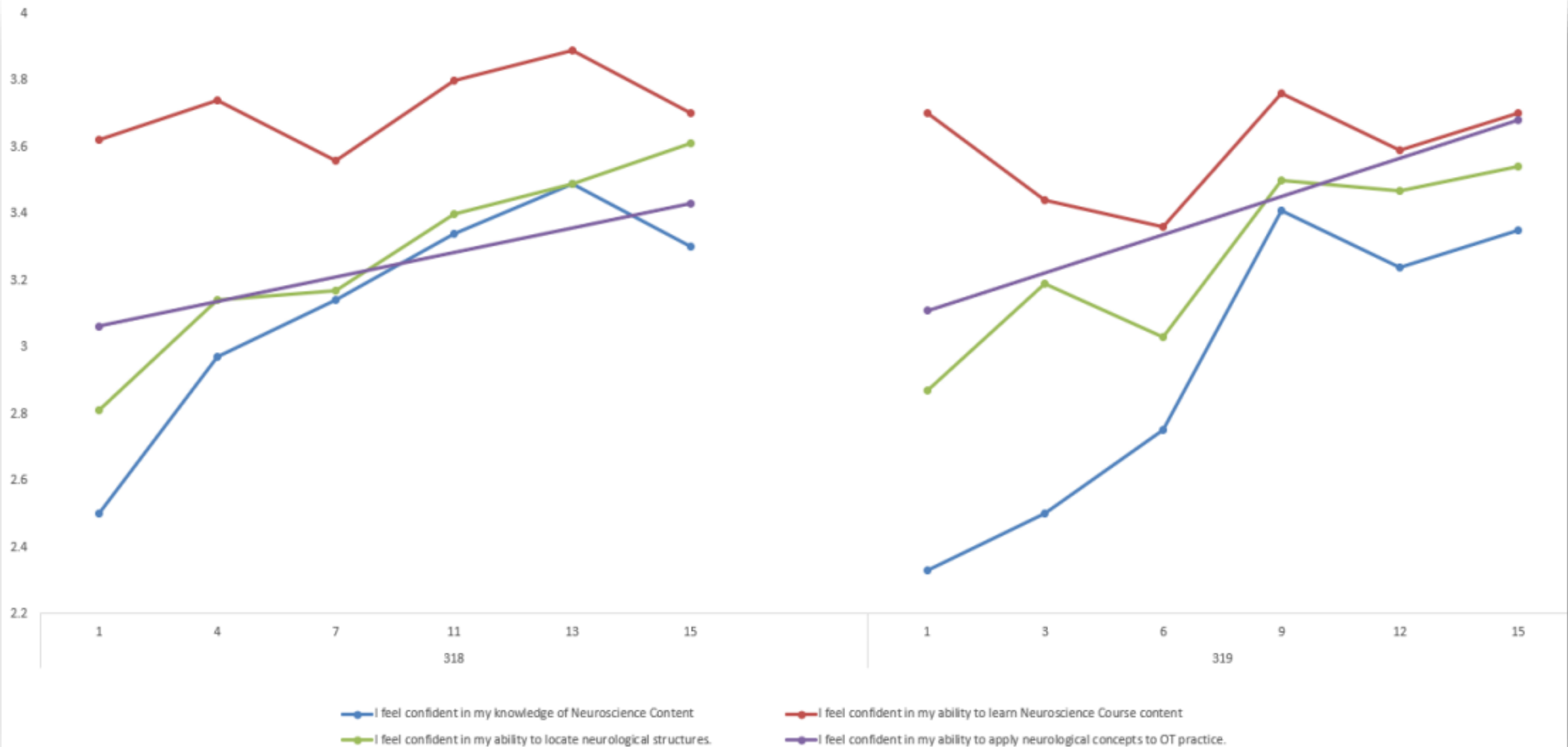
- Presenting research data and findings
- 

Perceived Confidence with Ability to Learn

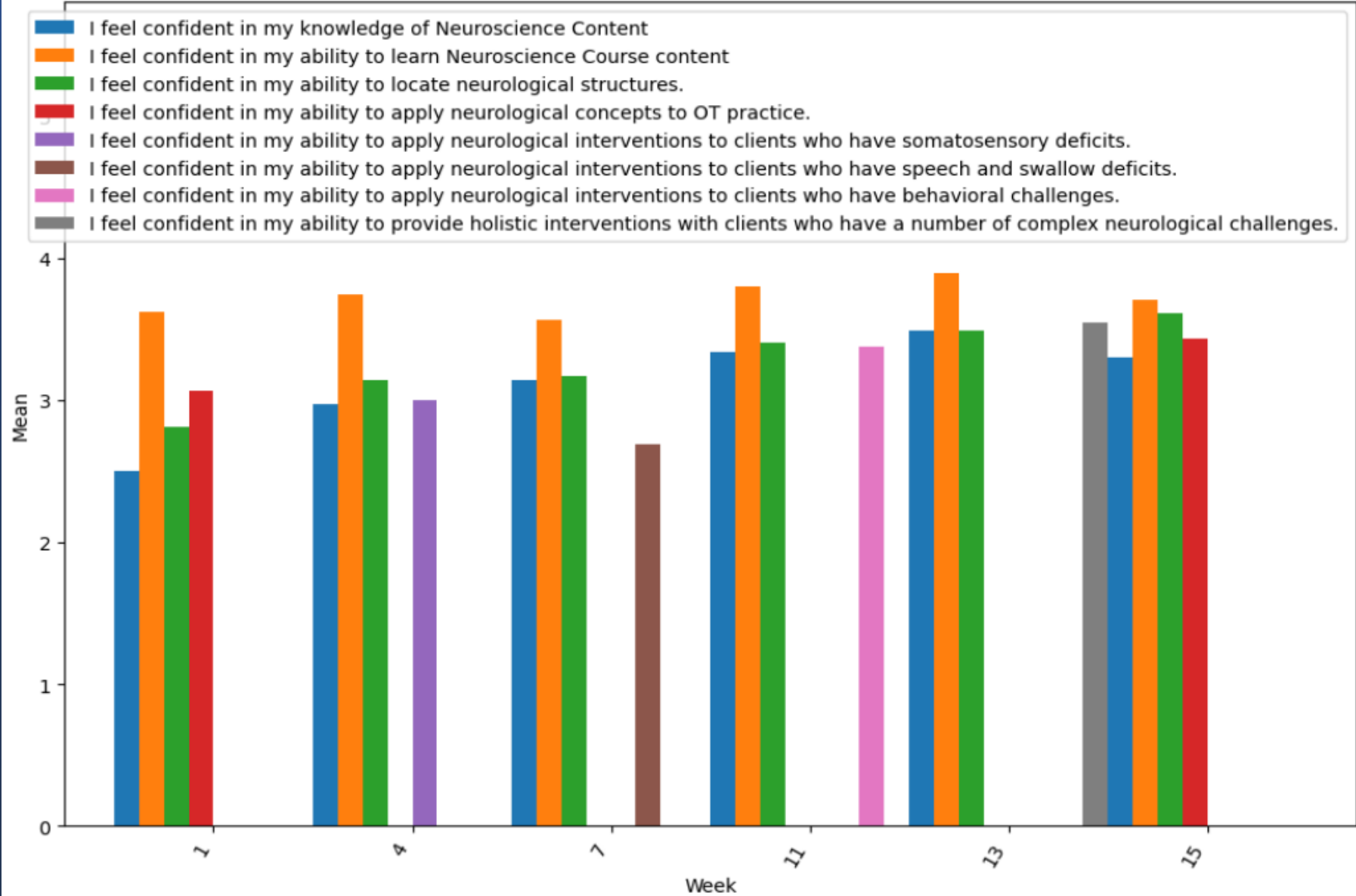
Perceived Confidence Mean



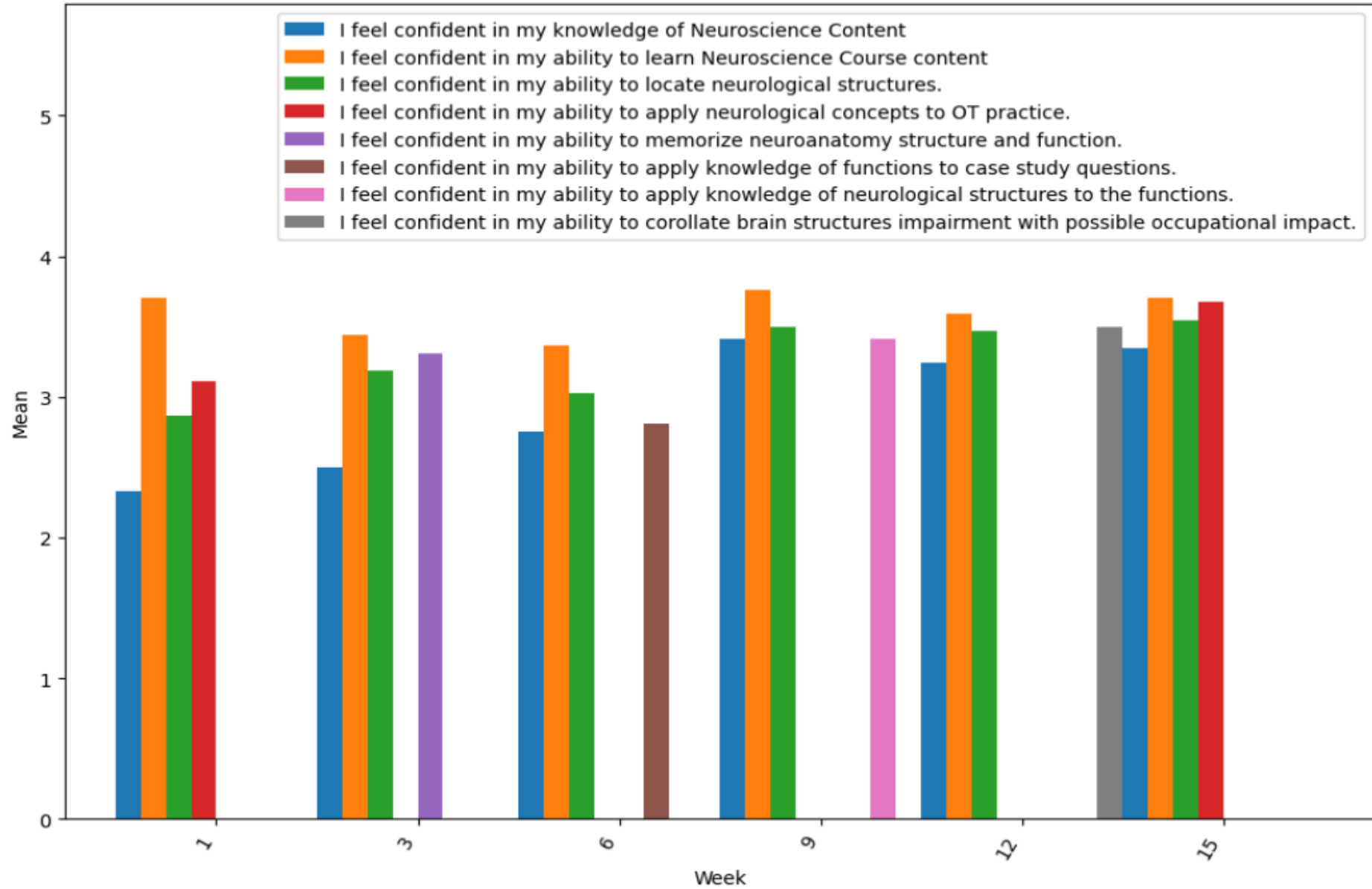
Perceived Confidence



Course 318



Course 319



Qualitative Data



SELF-REFLECTION OF
KNOWLEDGE



ABILITY TO
ACKNOWLEDGE PROGRESS



SUPPORT FROM PEERS
DURING STUDYING

25

20

15

10

5

0

● Negative

● Neutral

● Positive

What factors impact/contribute to your personal level of confidence?

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What factors over the trimester contributed to your perceived level of confidence?

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How did you use the surveys to self-reflect on your progress in the course?

318

What factors impact/contribute to your personal level of confidence?

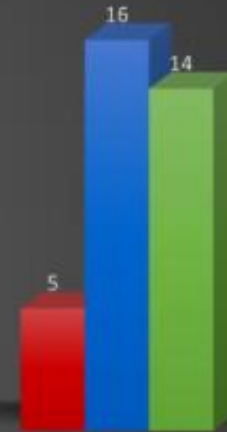
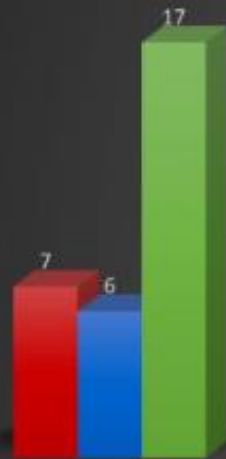
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What factors contributed to my confidence throughout the trimester?

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How did you use the survey questions to self-reflect on your progress in the course?

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How to Apply to Your Own Course

Providing practical applications of
the research findings

Active Learning Strategies

- Hands-on creative problem solving
 - Develop a problem-solving task for students to complete in small groups
- Virtual Reality/Augmented Reality
- Real life application & reports
- Case studies
- Low stakes assessments for "knowledge checks"



Summary

Use of self-reflection surveys can allow students to understand their confidence levels

A light orange downward-pointing arrow indicating a flow from the first box to the second.

This can allow them to develop strategies to improve their confidence

A light gray downward-pointing arrow indicating a flow from the second box to the third.

Can allow for improved organization from the instructor



Questions

Inviting questions from the audience



References

- Cho, H.J., Melloch, M.R. & Levesque-Bristol, C. Enhanced student perceptions of learning and performance using concept-point-recovery teaching sessions: a mixed-method approach. *IJ STEM Ed* 8, 32 (2021). <https://doi.org/10.1186/s40594-021-00276-1>
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- Hodgetts, S., Hollis, V., Triska, O., Dennis, S., Madill, H., & Taylor, E. (2007). Occupational therapy students' and graduates' satisfaction with professional education and preparedness for practice. *Canadian Journal of Occupational Therapy*, 74(3), 148-160. <https://doi.org/10.1177/000841740707400303>
- Nuhfer, E., & Knipp, D. (2003). The knowledge survey: A tool for all reasons. *To Improve the Academy*, 21(1), 59-78.