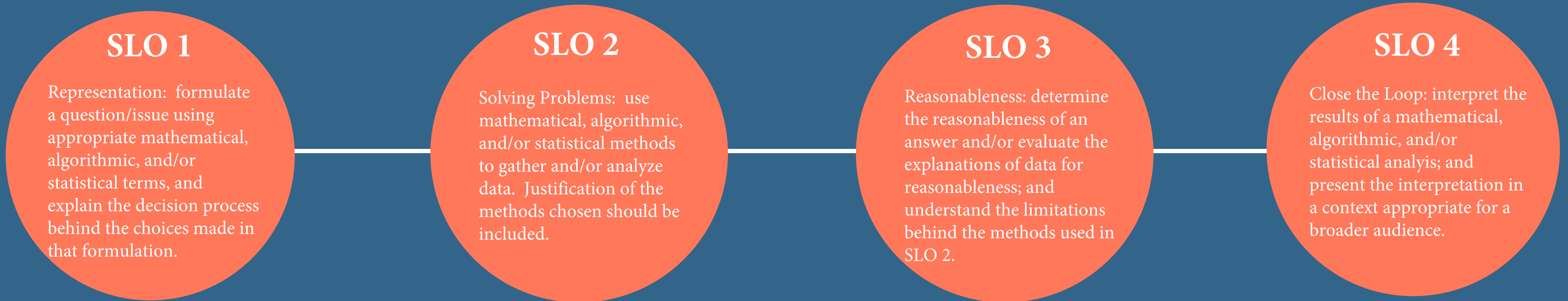


Quantitative Reasoning

Quantitative Reasoning at Longwood University is defined through a set of student learning outcomes that are designed and written to capture the process of using quantitative analytical methods to address practical problems and communicate the results to a broader audience.

Student Learning Outcomes (SLOs) Defining Quantitative Reasoning

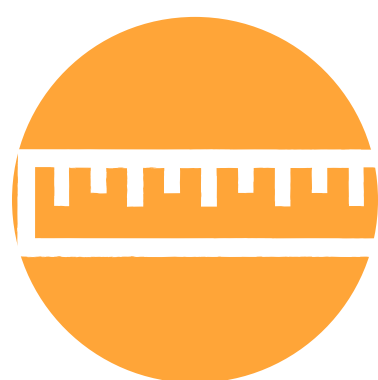


METHODOLOGY



Flexibility

Professors of QR courses are allowed to write and use their own assignments that align with the QR SLOs.



Artifact Collection

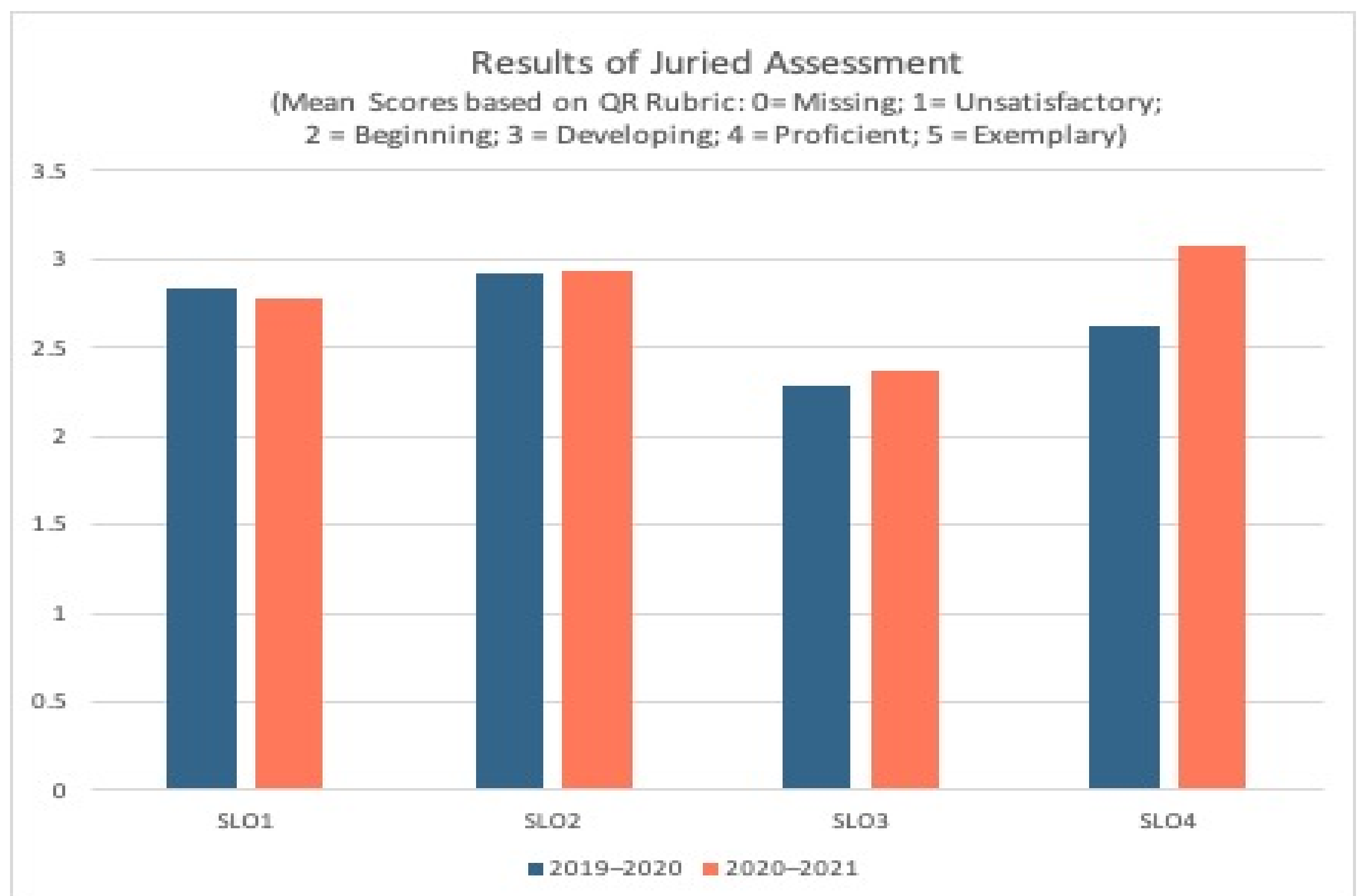
A single artifact/assignment addressing all four SLOs is collected from each student enrolled in a QR course.



Juried Assessment

The QR rubric is normed by a collection of faculty teaching QR courses and a juried assessment is conducted of a random sample of collected student artifacts.

RESULTS



KEY FINDINGS



Feedback from 2019-2020 juried assessment used to inform teaching and learning in 2020-2021 with additional emphasis placed on communication of results and SLO4



Targeted assignment design that aligns clearly with SLOs and QR rubric helps students demonstrate and present results relying on modeling and analytical techniques from QR



Rubric used in juried assessment of QR artifacts can be refined to help better distinguish between factors of individual SLOs

NEXT STEPS

Professional Development

Continued professional development opportunities for faculty to aide in assignment design to help ensure QR assignments align with QR rubric.

Redesign Rubric

Reformat the QR rubric used to address the QR SLOs in order to allow both factors of each SLO to be assessed independently.



Share Experiences

Provide formal and informal opportunities for faculty to discuss and share QR teaching and learning experiences in order to increase student success.

Target Successes

Build off of success in improvement of scores on SLO4 and continue to use juried assessment to help identify targeted areas for improvement.