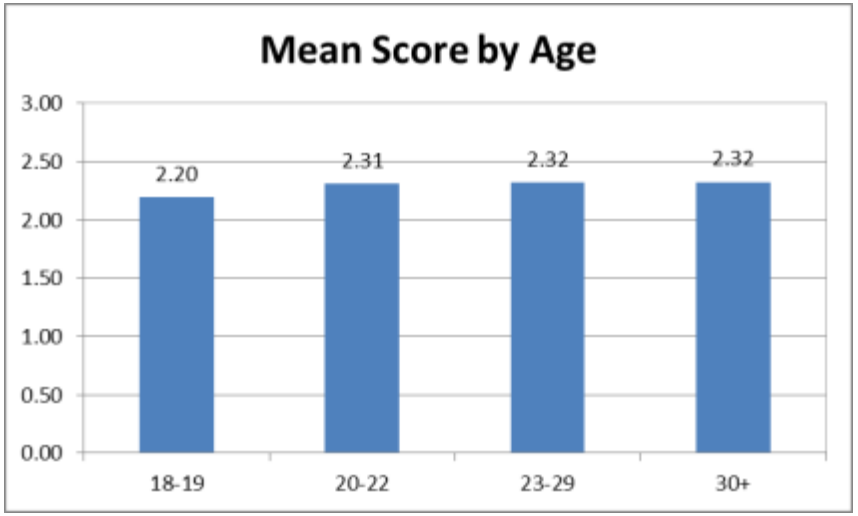
General Education Assessment Spring 2014

Quantitative Literacy

GE/ILO Assessment

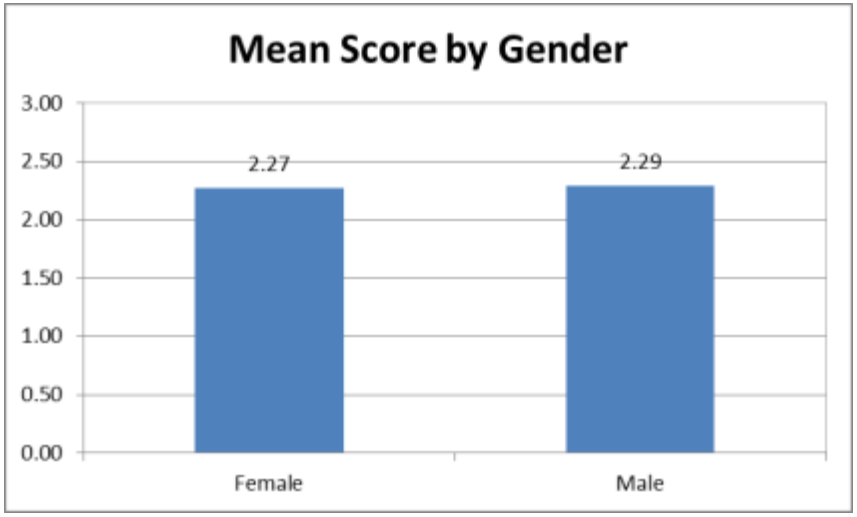
- A total of 31 randomly selected courses participated in the assessment of Quantitative Literacy. Assessors were trained on the process and discussed the rubric.
- After scoring the student work, the assessors submitted the results to the college's Institutional Research and Planning office and took an online survey.
- Participating faculty earned $250 for participating in the training and assessment.
- A workgroup made up of 14 full & PT faculty and administrators met in June to discuss the findings.

Age



- 18-19 years olds mean scores were statistically significantly lower than 20-22 and 23-29
- Our youngest students did not perform as well as older students

Gender

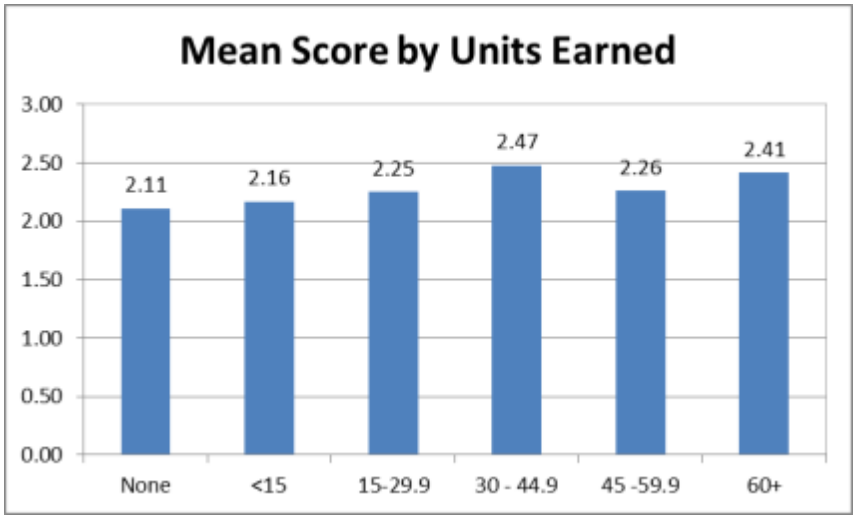


- No difference in performance by gender

Ethnicity

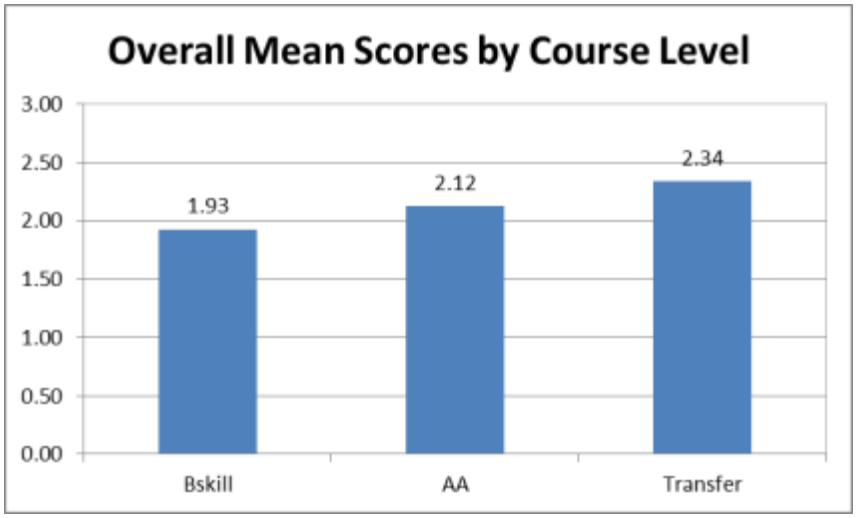
- White, Non-Hispanic mean scores were statistically significantly higher than Hispanic and Asian groups

Units Earned



- Students with 30-44.9 and 60+ units performed better than all other groups.
- ***Possible ---*** Students who have completed more units perform better than students with less. (Concern about the 45-59.9 unit group)

Course Level



- Students enrolled in the AA courses that were assessed performed better than the Basic Skills group.
- Students enrolled in the Transfer courses that were assessed performed better than students enrolled in AA and Basic Skills courses that were assessed.
- This does not necessarily mean that transfer level students performed better than basic skills students because you could have basic skills students enrolled in the AA and transfer level courses assessed.
- Caution: N's
  - Basic Skills = 38
  - AA Degree = 95
  - Transfer = 500

Overall Results

- More students (61%) rated as proficient on first factor, **Numerical and Calculation /Computational Skills**, than other factors
- About 50% rated as proficient on each of the remaining four factors
  - Representation
  - Analysis/Synthesis
  - Interpretation
  - Communication
- About half (47%) of the sample earned mean score in the range of 2.0-2.8 (emerging to close to proficient)

Overall Results

- No difference in performance by gender
- White, Non-Hispanic student group performed better on average than Hispanic student group
- Youngest students 18-19 did not perform as well on average than older students
- Units completed possibly impact performance
- Transfer courses assessed performed better than AA and Basic Skills courses assessed

Feedback from Summer Workgroup

- Many of the workgroup members who also participated in the assessment had concerns about how the rubric was used (multiple choice test, problems)
- Most members thought that only having a 0-3 was a problem – should consider adding an exemplary category
- Group members said our students are having problems with reading graphs, causation and critical thinking.

Overall suggestions

- Put a group together to re-structure rubric this fall.
- Improve rubric training
- Put together some learning modules that would help students with some basic aspects of quantitative literacy. For example, the module might have a unit on reading and analyzing data from multiple representations, such as tables, bar graphs, circle graphs and formulas. These could be delivered through Dashboard and/or Blackboard.

Process changes & suggestions

- New selection process - strata and quotas were used to make sure we had representation across the disciplines while still maintaining the 40% enrollment/section in Math
- Therefore, more departments and programs were represented in the sample.
- Still difficult to get faculty to participate.
- Need to utilize discipline-specific specialists to help with rubric training and norming.