

Year end report: Quantitatively Literacy (QL) Committee (2019-2020)

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The discussion items of the committee this year mainly revolved around:

1. **Possible methodologies** for institution-wide data collection for QL assessment during 2020-2021 academic year.
2. Shortening the assessment **cycle from 6 years to 3 years**, by teaming up with another ESLO committee.

The following rationale and main challenges for each possible means for us to collect data to assess QL fairly and effectively have been discussed:

- 1) Developing student survey to assess student ability to process quantitative information.

Rationale: The standards for foundational level of QL is universal for students from different majors at OIT. It could potentially simplify the data collection process, and ensure comparability of the data collected across disciplines.

Main challenge: How to make sure that students across OIT will take it, to avoid volunteer bias?

- 2) Collecting student work from different departments (disciplines) graded by different faculty.

Rationale: It gives each program the right to interpret the specific meanings of QL for their own students.

Main challenge: How to make sure that the data are comparable across disciplines?

- 3) Developing a faculty survey to collect faculty perspectives on whether they think their students are prepared in QL for their own majors.

Rationale: The standards for practicing level of QL can be different between major programs, and can be discipline-related. Faculty of each program have a better understanding of the level of their students than QL committee members do.

Main challenge: How to include student performance into the measure?

- 4) Engaging Rock, Campus Life to help assess the financial literacy of our students.

Rationale: These programs are campus wide, and have the resources to reach each individual students at OIT.

Main challenge: Additional coordination between QL committee, students, faculty and staff to ensure the data can be collected as planned.

QL committee plans (tentative) for 2020-2021 academic year:

The committee could work remotely, distribute the workload to the members who are willing to participate in this process, while dealing the main challenges listed above.

Summer:

- Develop the student surveys needed for fall term data collection:

I) Providing a **small amount of credit** to students for completing the survey is encouraged (not required). Example: "Teamwork" assessment survey collected recently used this strategy. If the surveyed material is essential for student's well-being, it can be prompted by using the **course registration pin** as a control for them to take it.

II) Design 3 kinds of survey + 1 assignment shall be created and used for the QL data collection.

1. A *student survey* based on the basics of MATH 243 - Introductory Statistics, to assess the **foundational level** of QL.

2. A *faculty survey* to assess the **practicing level** of QL based on how they think their major students are prepared in QL.

3. A *short survey* on **financial literacy** will be created and provided to ROCK, for them to survey our students and potentially use course registration pin as a prompt.

4. An assignment will be given to MIT students at OIT since they do not take Statistics-related classes.

Fall:

- Present (if time allows) at convocation to the faculty at OIT for QL assessments, and make a short video with committee member Joseph Reid about the data collection procedure.
- Collect data institution wide.

Winter:

- Facilitate the data analysis process for the data collected in the fall term.

Spring:

- Plan for next year (action year)

Note: the QL committee will coordinate with the Inquiry and Analysis committee to work as a team on the new 3-year assessment cycle for our ESLOs.