
Assessing Core Competencies: Results of Quantitative Literacy and Reasoning Assessment

Graduating Seniors
2020 Fanuchånan (Fall)

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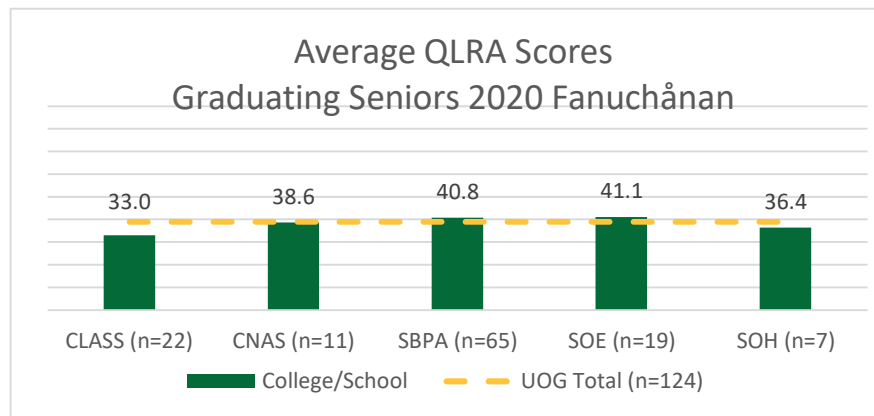
Quantitative Literacy and Reasoning Assessment 2020 Fanuchånan (Fall) Highlights

The Quantitative Literacy and Reasoning Assessment (QLRA), an online multiple-choice test, developed by Dr. Eric Gaze at Bowdoin College is a tool for assessing quantitative literacy among US four-year colleges and universities. The University’s Mathematics Department began using this instrument in 100 and 400 level Math courses since 2014. The University Assessment Committee adopted the QLRA in 2017 as the Institutional Instrument for Institutional-Level assessment.

Possible scores for this assessment range from 0% through 100%. Of the 124 graduating seniors who took the assessment across all disciplines, the average score was **39%**.

This average score is a 1-percentage point decrease from Fañomnåkan 2020.

This graph displays the



average scores of students in each college/school with the UOG average at **39%**. This report includes more detailed results of scores disaggregated by Major, and by College/School. To assure students cannot be easily identified, we did not report data for majors with less than three students.

To serve as a factor in the analysis of results, students were asked if they took the following courses at UOG: MA-085: Fundamentals of Math, MA-110: Basic Mathematical Applications, and MA-151: Introductory Statistics.

60% of seniors indicated that they had taken MA-085 received an average score of **34.9%** while the students who did not take MA-085 scored an average of **45.3%**. While this course is not required, students who get placed into developmental math must pass this course before proceeding with MA-110 or higher.

67% of seniors indicated they took MA-110 and received an average score of **37.4%**. The **33%** who did not take MA-110 received an average score of **42.3%**. Although MA-110 is a general education requirement, students may opt to take an equivalent course or higher. Students who are required to take 200 or 300 level math courses may opt take MA 115 in lieu of MA 110.

48% of seniors had taken MA-151 and their average score was **36.5%**. Those who did not take the course received an average of **41.3%**. Following last semester’s pattern, the average score of students who took Introductory Statistics were lower than those who did not take the course.

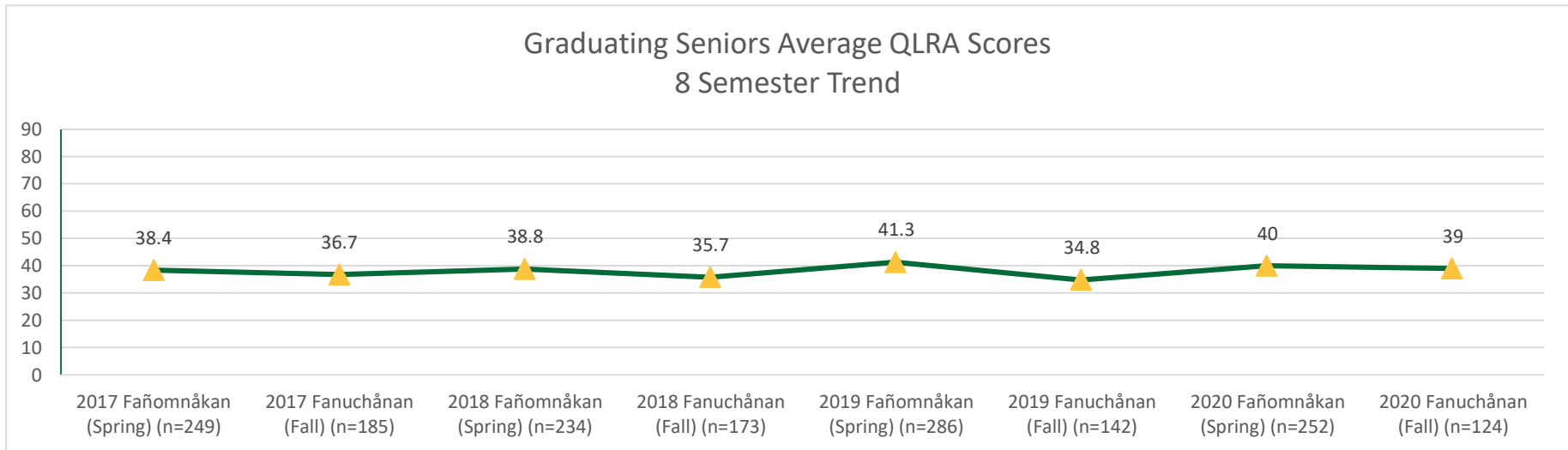
It is important to note that in response to safety measures implemented due to COVID-19, testing was no longer held in a proctored environment on campus. Seniors were permitted to complete this assessment online at a time of their own choosing off campus.



Quantitative Literacy and Reasoning Assessment - Graduating Seniors Average Scores

AVERAGE Scores

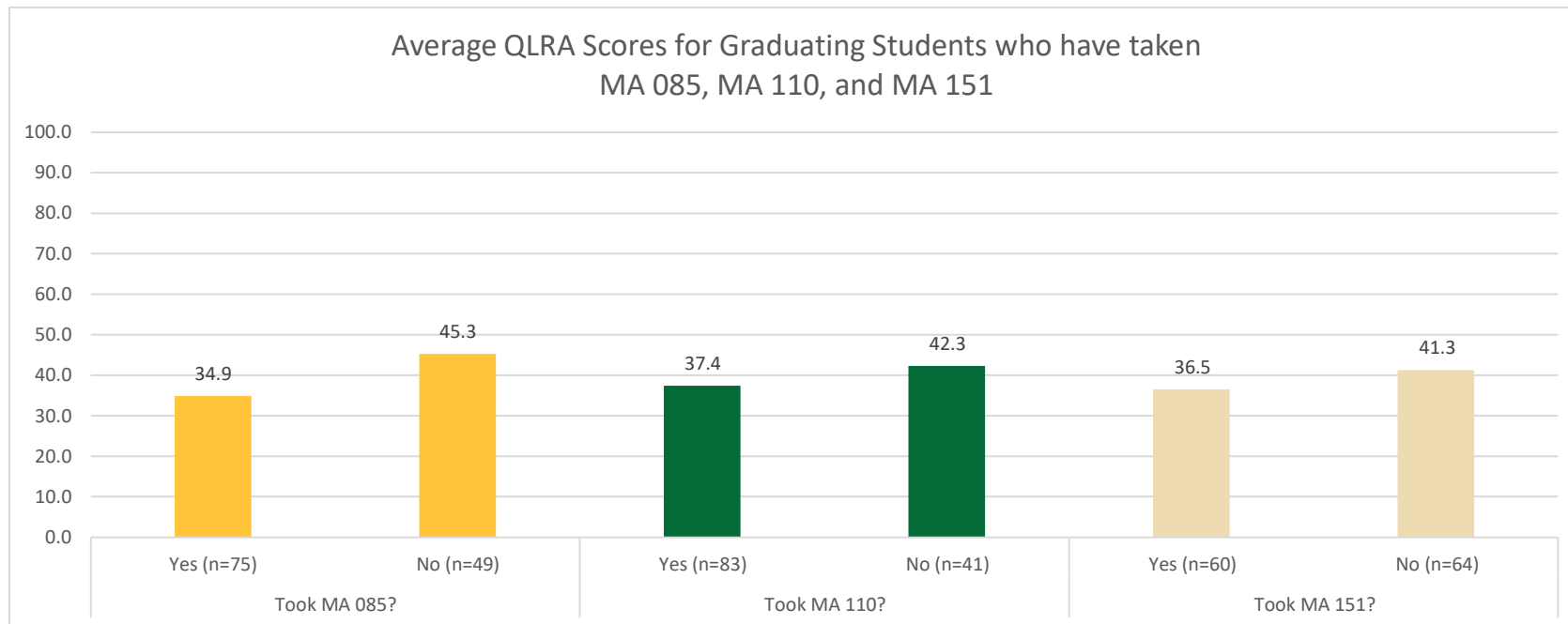
	AY-16-17	AY17-18		AY18-19		AY19-20		AY20-21	Eight- Semester Average
	2017 Spring Fañomnåkan	2017 Fall Fanuchånan	2018 Spring Fañomnåkan	2018 Fall Fanuchånan	2019 Spring Fañomnåkan	2019 Fall Fanuchånan	2020 Spring Fañomnåkan	2020 Fall Fanuchånan	
Count	249	185	234	173	286	142	252	124	206
Avg Grade	38.4	36.7	38.8	35.7	41.3	34.8	40.0	39.0	38
Std Dev	18.4	16.8	18.1	17.2	17.9	16.7	18.3	18.0	18





2020 Fanuchånan Quantitative Literacy and Reasoning Assessment Average Scores by Course for Graduating Seniors

	Total	Took MA 085?		Took MA 110?		Took MA 151?	
		Yes	No	Yes	No	Yes	No
Count	124	75	49	83	41	60	64
Percent	100%	60%	40%	67%	33%	48%	52%
Avg Grade	39.0	34.9	45.3	37.4	42.3	36.5	41.3
Std Dev	18.0	16.0	19.1	17.2	19.3	18.4	17.4

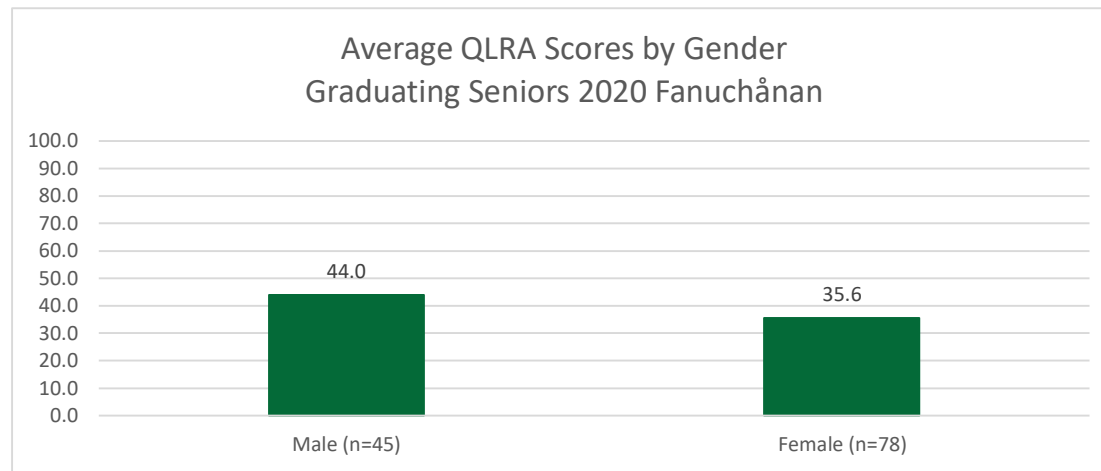




2020 Fanuchånan Quantitative Literacy and Reasoning Assessment Average Scores by Gender for Graduating Seniors

	Total	Gender*	
		Male	Female
Count	124	45	78
Percent	100%	36%	63%
Avg Grade	39.0	44.0	35.6
Std Dev	18.0	19.6	16.1

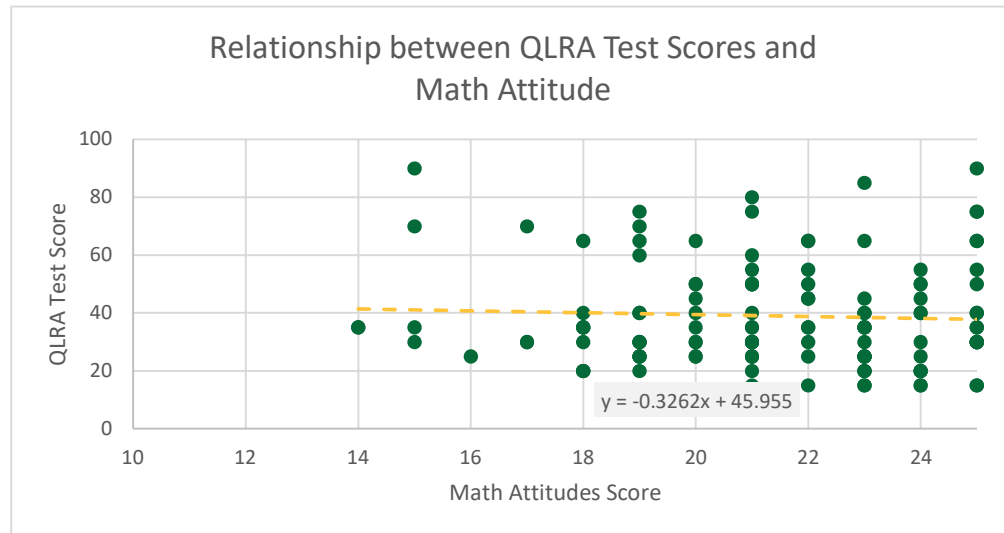
*One student declined to specify gender





2020 Fanuchånan Quantitative Literacy and Reasoning Assessment Math Attitudes - Indirect Assessment

Question	Response	Count	Percent
Numerical information is very useful in everyday life	Strongly Agree	76	61%
Numbers are not necessary for most situations	Strongly Disagree	33	27%
Quantitative information is vital for accurate decisions	Strongly Agree	57	46%
Understanding numbers is as important in daily life as reading and writing	Strongly Agree	75	60%
It is a waste of time to learn information containing a lot of numbers	Strongly Disagree	68	55%



Higher Math Attitudes Scores correspond to more positive attitudes towards Math. The highest possible Math Attitude Score is 25.

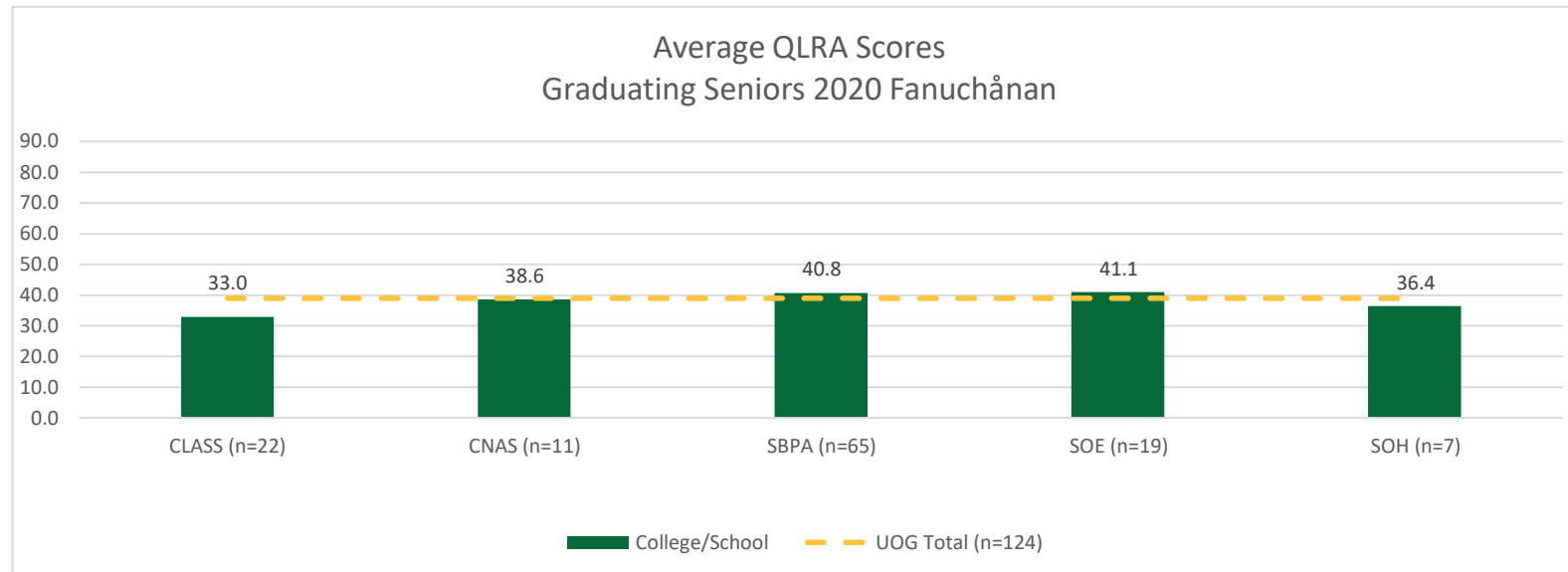
The QLRA has been administered to graduating seniors as a requirement for graduation since Spring 2017.

Every semester since then has shown a positive relationship between math attitudes and QLRA test scores. ***This Fanuchånan, there is a slight change in this pattern.***



2020 Fanuchånan Quantitative Literacy and Reasoning Assessment Average Scores by College/School

College/School	AVERAGE GRADE	STDEV
CLASS (n=22)	33.0	13.7
CNAS (n=11)	38.6	16.9
SBPA (n=65)	40.8	18.0
SOE (n=19)	41.1	24.4
SOH (n=7)	36.4	8.0
UOG Total (n=124)	39.0	18.0





2020 Fanuchånan Quantitative Literacy and Reasoning Assessment Average Scores by Program

TERM	COLLEGE	MAJOR	Average Grade	STDEV of Grade
20/FA	CLASS	English (n=5)	44.0	22.7
20/FA	CLASS	Fine Arts (n=3)	33.3	5.8
20/FA	CLASS	Psychology (n=6)	30.0	7.7
		CLASS Subtotal (n=22)	33.0	13.7
20/FA	CNAS	Biology (n=3)	35.0	10.0
		CNAS Subtotal (n=11)	38.6	16.9
20/FA	SBPA	Accounting (n=8)	56.9	16.0
20/FA	SBPA	Business Administration (n=34)	44.0	19.2
20/FA	SBPA	Criminal Justice (n=17)	30.0	9.2
20/FA	SBPA	Public Admin (n=6)	31.7	9.8
		SBPA Subtotal (n=65)	40.8	18.0
20/FA	SOE	Elementary Education (n=11)	27.3	9.0
20/FA	SOE	Secondary Education (n=6)	71.7	17.8
		SOE Subtotal (n=19)	41.1	24.4
20/FA	SOH	Health Science (n=6)	36.7	8.8
		SOH Subtotal (n=7)	36.4	8.0
		UOG Total (n=124)	39.0	18.0

**To assure students cannot be easily identified, we did not include data for majors with less than three students. The following programs did not have enough students to report: Anthropology, Communication Studies, History, Pacific Asian Studies Program, Political Science, Sociology, Agriculture and Life Sciences, Chemistry, Computer Information Systems, Mathematics, Tropical Agriculture Applied, Secondary Education/Physical Education, and Social Work*