

Quantitative Reasoning (QR) Workshop

*Sponsored by the SJSU QR Task Force
(Chair, Stephen Branz)*

3 March 2017

Why form a QR Task Force?

(September 2016)

Sense of the Senate Resolution SS-S16-1 authorizes the AVP, GUP to “...utilize the assessment facilitators group, under the leadership of the Director of Assessment, to gather input on potential strategies to **assess core competencies** from a wide range of campus groups (e.g., UCCD, BOGS, Associated Students)” and further “...urges the Director of Assessment to develop a proposal to present to the Curriculum and Research Committee regarding plans for the periodic assessment of the following core competencies: Information Literacy, Written Communication, Oral Communication, Critical Thinking, and **Quantitative Reasoning.**”

Q: Why Assess Core Competencies?

Glib Answer: WASC

More seriously, it is the right thing to do...

Our students need to be able to think critically and communicate effectively. QR intersects significantly with Critical Thinking (CT) and Information Literacy (IL) regarding the presentation and evaluation of quantitative information in a variety of formats, e.g., tables and graphs. Our educated graduates need to be able to evaluate and use statistical and mathematical information in many contexts and for many purposes.

WASC – 5 Core Competencies

(as defined in the 2013 WASC Handbook, CFR 2.2a)

...baccalaureate programs must: “ensure the development of core competencies including, but not limited to, written and oral communication, **quantitative reasoning**, information literacy, and critical thinking.”

[and the expectation is that the assessment be done at the graduating senior level; we are approximating by assessment in upper division coursework]

QL & QR: A Short History

2004 – AAC&U Summer 2004 issue of *Peer Review* devoted exclusively to **Quantitative Literacy (QL)**
<http://www.aacu.org/peerreview/2004/summer>

2006 – SJSU ad hoc QL Committee formed; well-attended November Conference on QL (goal = Establish definitions, strategies, and activities for QL)

2007-09 – AAC&U development of VALUE Rubrics (including a rubric for QL) --
<https://www.aacu.org/value/rubrics/quantitative-literacy>

2013 – WASC established Core Competencies for graduating seniors, including **Quantitative Reasoning (QR)**

QL & QR: A Short History (cont'd)

2015 – **CSU** Executive Order 1100 (the latest in a long line of Executive Orders regarding GE) – defines lower division GE Area B4 (“Mathematical Concepts”) [EO 665 (1998) defines entrance requirement based on the ELM] -- <http://www.calstate.edu/eo/EO-1100.html>;
<http://www.calstate.edu/eo/EO-665.pdf>

Fall 2015 – **Academic Senate of the CSU** – QR Task Force Report – focus on admissions and Area B4 requirements, *not* QR as a graduation requirement
[calstate.edu/AcadSen/Records/Reports/documents/QRTF.FinalReport.KSSF.pdf](http://www.calstate.edu/AcadSen/Records/Reports/documents/QRTF.FinalReport.KSSF.pdf)

Spring 2016 – **SJSU** hosts **CSU** Conference on QR (keynote speaker Eric Gaze: “There are three main content areas that are incorporated into the QR courses: 1. Proportional Reasoning; 2. Probability and Statistics; 3. Modeling”) <http://www.sjsu.edu/gup/symposium/index.html>

QL & QR: A Short History (cont'd)

What Brings Us Here Today

Spring 2016 – SJSU Academic Senate passes **SS-S16-1**

Fall 2017 – SJSU QR Task Force

Welcomes You All Today !

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Goals for the Workshop:

1. Learn about QR and work on definition of QR
2. Think about applicability of QR in YOUR course(s)
3. Work on QR Learning Outcomes for Area R & Area S

QR Task Force & Contact Information

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College of Education – Robin Love

College of Engineering – n/a

College of Humanities and the Arts – Anand Vaidya

College of Science – Julie Sliva

College of Social Sciences – Hilary Nixon & Felipe Gómez

Director of Assessment – Chris Tseng

Chair WASC Steering Committee – Kathleen McConnell

AVP Graduate & Undergraduate Studies (GUP) – Thalia Anagnos