

QL Across the Curriculum at Colby-Sawyer College

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Colby-Sawyer College

- Small liberal arts college
- Rural
- 1100 Students
 - Coed
 - Traditional age students
 - Residential





Colby·Sawyer
College
inside · outside · planetwide

QL Across the Curriculum in a Liberal Arts Setting



NSF Funded Project – 063313

2007-2012

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4 Assessment Plan

- **Students**
 - Basic Skills
 - QL Skills
 - Attitude (Split survey)
- **Faculty**
 - Survey
 - Workshop Assessment
- **Curriculum**
 - Syllabi

Basic Skills and QL Skills Mapping

Learning Objective	Basic Skills	Quantitative Literacy Skills
1. Apply basic arithmetical, algebraic and geometric tools in everyday settings and distinguish between the appropriate and inappropriate uses of numerical information.	21	16
2. Use inductive and deductive reasoning and understand fallacies in logic.	2	4
3. Understand, and use descriptive statistics and graphical displays.	2	3
4. Use reasoning to develop and test hypotheses and to draw inferences and make well reasoned decisions from collected data.	0	2

Sample QL Question

In 2004 your salary increased by 10%. In 2005, you received a 10% pay cut. After the two changes, how does your salary compare to your original salary?

- a) It is lower.
- b) It is higher.
- c) It is unchanged.

Freshmen 15%

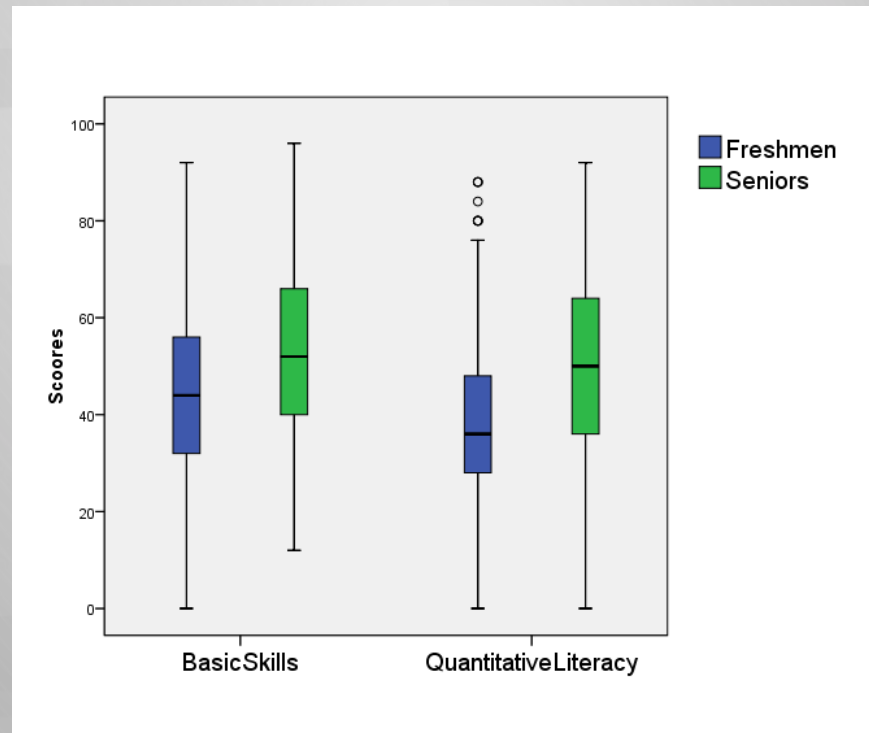
Seniors 26%

Internal Consistency-Reliability (Cronbach's Alpha)

	Basic Skills	QL Skills
Freshmen <i>N = 1040</i>	$\alpha = .72$	$\alpha = .68$
Seniors <i>N = 315</i>	$\alpha = .73$	$\alpha = .75$

Assessment Summary

Fall 2007-Spring 2011



Further Correlations

	CumGPA	SATMath	SATVerb	QLTot	BSTotal
CumGPA	1	.216**	.212**	.188**	.175**
SATMath	.216**	1	.973**	.065	.211**
SATVerb	.212**	.973**	1	.053	.159*
QLTot	.188**	.065	.053	1	.473**
BSTotal	.175**	.211**	.159*	.473**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Attitude Survey

ORDER

1. Survey I

10 questions

2. Basic Skills

3. QL Skills

4. Survey II

10 questions

ATTRIBUTES

○ Self-confidence

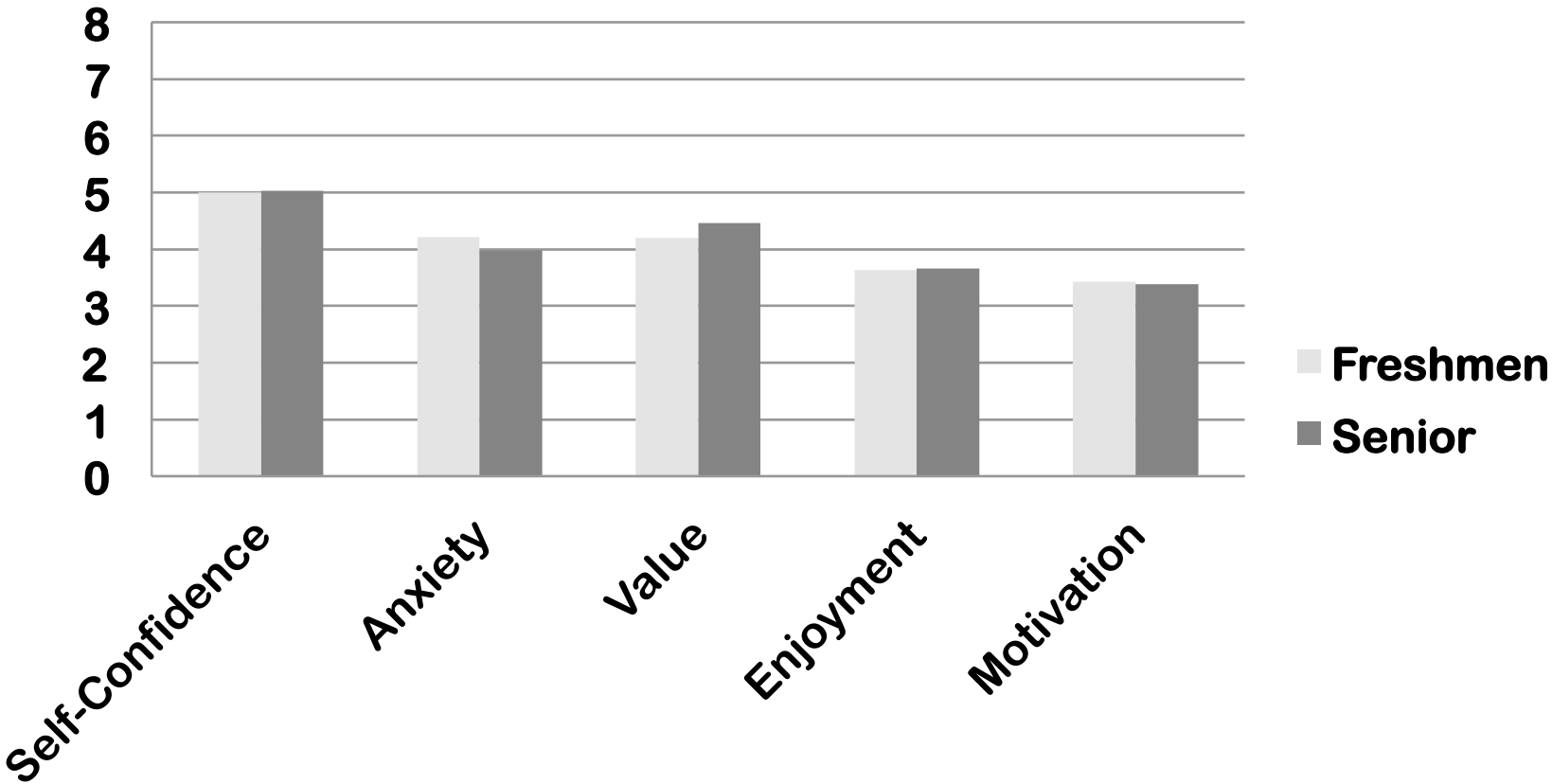
○ Anxiety

○ Value

○ Enjoyment

○ Motivation

Attitude Survey





Quantitative Literacy Reasoning Assessment

- NSF – TUES Collaborative Grant #1140584
- Lead: Bowdoin College

Pilot Study 2011

Institution Type	Frequency	Percent	<i>M</i>	<i>sd</i>
Community College	314	18.9	10.27	5.390
Independent	64	3.9	8.34	3.835
Liberal Arts	1011	60.9	15.28	4.602
Public	270	16.3	11.44	5.029
Total	1659	100.0	13.44	5.35

2012

QLRA descriptive statistics by institution type

Institution Type	N	M	sd
Community College	273	7.85	4.03
Independent	695	6.06	3.72
Liberal Arts	409	13.43	4.66
Public	117	5.76	2.66



Curriculum Change Fall 2014

- **QR required for all incoming freshmen**
 - **QR -1**
 - **QR -2**
- **QR integrated into each major**