

Critical Thinking in Economics

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Economy

Presentation is Based on Two Publications

- “Critical Thinking in Interdisciplinary Economics Courses.” J. Rody Borg and Mary O. Borg in *College Teaching* 49, 1 (Winter 2001)
- “Do Economics Courses Increase Critical Thing Skills?” Mary O. Borg and Harriet A. Stranahan, forthcoming in *Contemporary Economic Policy*.

Perry Schema of Critical Thinking

Four Stages of Cognitive Development

- Dualism
- Multiplicity
- Contextual Relativism
- Contextually Appropriate Decisions

Team-Taught Interdisciplinary Courses

- Modern Economic and Cultural Revolutions
 - Mary Borg and English Professor Marnie Jones taught the course as a 6 hour Honors Seminar at UNF
- The Economics of Human Ecology
 - Rody Borg and Biology Professor Ken Hoover taught the course as a 3 hour Honors Course at JU

Results

- Students were able to reach third stage of cognitive development by realizing that different disciplines make very different assumptions that lead to very different conclusions about what is “right.”

What About Regular Economics Courses?

- Our sample included 147 students from four sections of introductory microeconomics taught by two faculty members at UNF. Students in these sections took a pre and post Watson-Glaser Critical Thinking Appraisal as well as a pre and post Test of Understanding College Economics (TUCE). Table 1 shows the descriptive statistics of other variables that we gathered from student records.

Table 1: Means and Standard Deviations of Variables in the Model

Variable	Mean	Std. Deviation
Watson-Glaser Post Test	26.92	5.31
Percent Change Watson-Glaser	8.41	23.46
Age	22.09	5.03
Female	0.42	0.49
African American	0.12	0.33
White	0.74	0.44
Hispanic	0.06	0.24
GPA at Time of Admission	3.23	0.66
ACT	22.78	3.06
University Credit Hours	29.98	24.30
Watson-Glaser Post Test	24.69	5.43
Credit Hours Taken During Semester	10.71	3.59
InstructorI	0.52	0.50
Community College Transfer	0.26	0.44
TUCE Score	15.39	4.73
Percent Change TUCE Score	63.80	70.60

Model One

Post Critical Thinking Skills = f (age, gender, ethnicity, GPA at time of admission to the university, ACT, university credit hours completed, critical thinking skills at beginning of semester, semester credit hours, instructor, community college transfer, TUCE)

Results for Model One

Table 2 Dependent Variable: Watson Glaser Critical Thinking Score

Independent Variable	Coefficient	Standard Error	P-value
Intercept	7.26	6.87	0.132
Age	-0.077	0.288	0.789
Female	0.251	0.758	0.741
African American	0.778	1.126	0.491
GPA at Time of Admission	-0.989	0.694	0.156
University Credit Hours	-0.014	0.018	0.439
Watson-Glaser Pre-Test	0.379***	0.070	<.0001
ACT	0.357**	0.152	0.021
Current Enrollment Hours	0.116	0.118	0.329
Instructor1	3.25***	0.751	<.0001
Community College Transfer	-1.951	1.403	0.166
TUCE Score	0.271***	0.091	0.003
Number of Observations	N = 147		Adj R2 = 38%

Model Two

Table 3. Dependent Variable: Watson Glaser Critical Thinking Gains

Independent Variable	Coefficient	Standard Error	P-value
Intercept	13.52	42.63	0.553
Age	0.193	1.754	0.912
Female	3.422	4.307	0.428
African American	1.604	6.484	0.805
GPA at Time of Admission	-7.941*	4.237	0.063
University Credit Hours	-0.101	0.103	0.292
ACT	0.061	0.778	0.937
Current Enrollment Hours	1.140*	0.661	0.087
Instructor1	12.38***	4.14	0.003
Community College Transfer	-22.21***	7.59	0.004
Percent Change TUCE	0.051*	0.029	0.080
Number of Observations	N = 147		Adj R2 = 10.2%

Conclusions and Areas for Further Research

- Small effects but there was no effect to incorporate intentional critical thinking exercises.
- Do other disciplines experience similar or even larger effects?
- Can these results be generalized to other universities?