

ETS WAVES SUMMARY - CRITICAL THINKING AND WRITING

Bowie State University (BSU) was one of eight institutions that participated in a U.S. Department of Education (DOEd)/Educational Testing Services (ETS) study called WAVES to study how achievement in critical thinking and writing relates to student success in college. The Center for Academic Programs Assessment (CAPA) administered these assessments to freshmen and senior students in 2017-2018 to determine student performance in writing, and the relationship to academic success during the student’s college career, and changes from freshman students to senior students.

The DOEd web site (<https://ies.ed.gov/funding/grantsearch/details.asp?ID=1807>) states the areas of writing-domain knowledge the researchers focused on: Conventions (e.g., grammar, spelling, citations); Coherence (e.g., topic development, topical cohesion); Organization (e.g., thesis sentences, use of rhetorical and discourse markers, such as therefore, however); Source use and integration (e.g., appropriate use of citations); and Topicality (e.g., relevant vocabulary). Further, the researchers are analyzing whether critical thinking skills correlate with writing ability.

CRITICAL THINKING	Developing (150-161)	Proficient (162-172)	Advanced (173-180)
BSU Freshmen (n=74)	85%	15%	0
BSU Seniors (n=88)	86%	14%	0
Comparison (n=2,520)	48%	42%	10%

Students took two on-line assessments to measure skills in critical thinking and writing, as well as a writing attitudes survey. They also upload three writing assignments, which are reviewed with an Automated Writing Evaluation (AWE). The performance of the BSU freshmen and senior students versus the comparison students was as follows:

WRITING	Developing (150-161)	Proficient (162-172)	Advanced (173-180)
BSU Freshmen (n=92)	66%	34%	0
BSU Seniors (n=76)	86%	14%	0
Comparison (n=2,162)	48%	43%	9%

The mean scaled scores for critical thinking and writing for the above groups of BSU freshmen and senior students versus the comparison group were very close, with both groups of BSU students scoring at the top of the “Developing” category and the comparison students scoring at the low end of the “Proficient” category as follows:

MEAN SCORES	CRITICAL THINKING	WRITING
BSU Freshmen	156.8	159.7
BSU Seniors	156.5	157.4
Comparison Group	162.2	162.9

All three groups scored slightly higher in writing compared to critical thinking. Somewhat surprisingly, the BSU freshmen scored very slightly higher than the BSU seniors in both critical thinking and writing. One would expect that the seniors would score higher after greater academic experience during their college careers. However, this is not the same group of students four years later, so there are many reasons that the scores may have decreased slightly. Both BSU groups scored lower than the comparison groups both in critical thinking and writing; however, the scores were close for all groups.