**An Opportunity to Demonstrate the Critical Thinking Skills of COPLAC Students**

**Using the Critical thinking Assessment Test (CAT)**

**What is the CAT?**

* A pencil-and-paper, short essay test of 15 critical thinking skills (see the back of this page).
* Takes 1 hour and is typically administered in classes.
* Developed by researchers at Tennessee Tech with support from NSF. Has strong reliability and validity data.
* Has been used by more than 200 colleges and universities nationally.
* Tests are locally scored by faculty, then a portion are rescored at Tennessee Tech.
* Local scoring supports faculty understanding of their own students’ critical thinking skills.
* Rescoring at Tennessee Tech provides an accuracy check and allows for national comparisons based on the average SAT scores of the group tested.
* Scores range from 0 to 38. Students gain on average 4 ½ points over the course of undergraduate study, but studies have found gains that large in a single semester when critical thinking skills are actively practiced and assessed throughout a course. Studies have also found that not all courses actually teach critical thinking skills, even when faculty believe that is what they are teaching.

**How has Keene State College used the CAT?**

* NEASC, our regional accrediting body, requires all institutions to establish and assess learning outcomes for the college experience overall, as well as for the general education program. Critical thinking is a learning outcome at both levels for us, and we use CAT as the assessment tool.
* We have used CAT both as a pre- and posttest within a single course and as a one-shot assessment at various levels of the curriculum.
* We are using CAT assessments to seed improved critical thinking instruction across the curriculum. Through use of CAT, a learning community of faculty interested in improving students’ critical thinking skills has spontaneously developed. Some departments are beginning to use CAT for their program assessments, to demonstrate their contribution to the College-  
  Wide Learning Outcomes.
* We have found that in general our upper-level students score about where we would expect them to score based on their SAT scores, and we have identified statistically significant score gains within one semester in some courses where students have practiced critical thinking activities.

**What is Keene State College’s proposal for COPLAC?**

* We are seeking institutions that want to learn about CAT for themselves and to begin to establish a baseline for critical thinking scores for students in COPLAC institutions, against which we can all compare our own scores.
* Participating institutions would administer CAT to 30-50 students on their own campus in early spring 2017 and then send a team to a workshop in summer 2017 where CATs from all institutions would be scored. Representatives from Tennessee Tech would lead the workshop, train the scorers, and share more information about the instrument.
* CAT instruments currently cost $9.95 each, so the cost of participation would be $500 or less for instruments, plus the cost of sending a team of scorers to the workshop.

**Critical Thinking Skills Assessed by the CAT**

**Evaluating Information and Other Points of View**

* Separating factual information from inferences
* Interpreting numerical relationships in graphs
* Understanding the limitations of correlation data
* Evaluating evidence and identifying inappropriate conclusions

**Creative Thinking**

* Identifying alternative interpretations for data or observations
* Identifying new information that might support or contradict a hypothesis
* Explaining how new information can change a problem

**Learning and Problem Solving**

* Separating relevant from irrelevant information
* Integrating information to solve problems
* Learning and applying new information
* Using mathematical skills to solve real-world problems

**Communication**

* Communicating ideas effectively

For more information: <https://www.tntech.edu/cat>