

FOCUS ON ADAPTIVE THINKING IN THE YEAR OF ANALYTICAL THINKING

General Education Assessment at Lindenwood

General education assessment is a key measure of institutional effectiveness because it helps an institution substantiate broad claims it makes about student learning through establishing high-quality outcomes across important domains of student educational experiences and carefully analyzing relevant student work. For example, Lindenwood's Institutional Learning Outcome 2.2 asserts that "Lindenwood graduates can think adaptively, and our communities of practice have developed a collaborative process for directly assessing student work in this area."

Lindenwood University recently adopted Graduate Attributes to replace these outcomes and will begin implementing them in Fall 2022. Many of the attributes were discussed in the Communities of Practice discussions this semester. The attributes of Analytical Thinker and Adaptable Problem Solver were discussed in the Community of Practice for Adaptive Thinking, Effective Communicator in the Community of Practice for Spoken Communication, and Responsible Citizen in the Community of Practice for Civic Responsibility. Alignment with current rubrics, insights on the attributes, and feedback were gathered as more work continues with the General Education Taskforce and the Graduate Attribute Alignment and Assessment Committee.



Community of Practice Model of Assessment

A community of practice is a group who has a collective interest in and desire for improvement. This approach to assessment enhances the validity of assessment data, builds an advocacy network across campus, and aligns with national best practices for general education assessment. Five communities of practice have been formed since Fall 2019: 1) ILO 3.1: Written Communication; 2) ILO 3.2: Spoken Communication; 3) ILO 2.5: Diverse Perspectives; 4) ILO 2.6: Civic Responsibility; 5) ILO 2.3: Critical Thinking; and 6) ILO 2.2: Adaptive Thinking.

Planning Session



Community of Practice for Adaptive Thinking Rubric Workshop

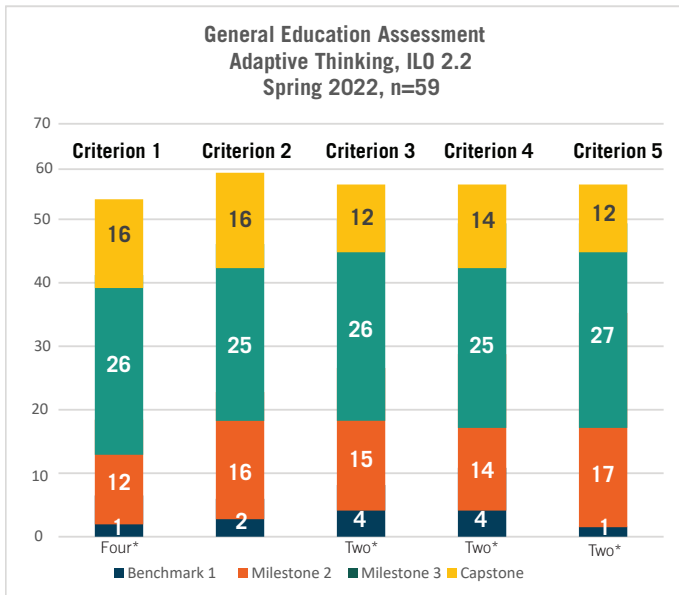


Community of Practice for Adaptive Thinking

- Robyne Elder, Head of Academic Effectiveness
- Mitch Nasser, Associate Professor, Educational Leadership
- Jeff Deckelbaum, Adjunct Professor, Math
- Larry Acker, Professor, Healthcare Management
- Sherrie Wisdom, Professor, Educational Leadership
- Graham Weir, Professor, Educational Leadership
- Becky Foushee, Professor, Psychology
- Bob Steffes, Associate Professor, Educational Leadership

FOCUS ON ADAPTIVE THINKING

Results



Criterion 1-5:

1. Define Problem
2. Identify Processes
3. Propose Solutions/Hypotheses
4. Student's Position or Perspective
5. Conclusions

*(0 scores included)

Methodology

The Sample

A stratified random sample of 157 artifacts from Principles of Psychology (PSY 100000) and Music in America (MUS 15000) courses (Fall 2021) were collected from Canvas. Of these, four were used for norming and 60 were used for scoring; however, 1 artifact selected was not accessible and therefore not scored.

The Rubric

During a workshop in March, faculty from Education Leadership and Psychology courses adapted the VALUE Rubric for Problem Solving for ILO 2.2 Adaptive Thinking and discussed Graduate Attribute, Adaptable Problem Solver. The revised rubric uses a five-point scale to score five criteria. Further revisions were made after gathering feedback from the Community of Practice for Adaptive Thinking. All community of practice rubrics can be accessed on the General Education Assessment website.

The Data

Each artifact was scored by two different members of the Community of Practice using the new rubric. In 31% of the cases, the gap between the scores was greater than one so a third member was used to reconcile the scores.

CLOSING THE LOOP

Broad Themes from Data Workshops

- 1. Interpretation of how to use the rubric based on the assignment, for example, many assignments did not ask the students to address a particular problem
- 2. As in other communities, some assignments aligned to the rubric more clearly than others
- 3. Many students showed high scores in areas but there was a clearer distinction between high and low achievers
- 4. Participants were able to see the assignment prompt before scoring and this aided in the scoring activity
- 5. Would like more of an opportunity to discuss scores with co-rater to improve inter-rater reliability and lower personal interpretation of the rubric
- 6. Due to the overlap between criteria 2 and 3 the community decided to combine this criterion in the most recently revised version of the rubric
- 7. Appeared that some students had communication course(s) as many presentations showed organization and experience whereas others did not



What's Next?

- 1 The CoP for Adaptive Thinking will reconvene in Fall 2022 to revise the rubric and create a FLIP (Focused Learning Improvement Project) for the Graduate Attribute: Adaptable Problem Solver.
- 2 Results from adaptive thinking assessment informed "The Year of Analytical Thinking," a 2021-2022 project that focused on assessing and improving student learning toward ILO 2.3 and 2.2 and conversations centered on the Graduate Attribute, Analytical Thinker, and Adaptable Problem Solver.
- 3 Working with campus partners, an action plan will be developed to address the themes that emerged from the April 2022 data workshops.

Contact

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ANNUAL DATA COLLECTION FOR SPOKEN COMMUNICATION

FLIP for Critical Thinking

In March of 2022, participants from the Community of Practice for Critical Thinking gathered to create a Focused Improvement Project (FLIP). This is a central aspect of the community of practice model and the creation of an actionable step based on closing the loop themes from the previous semester. The group focused on strategies to improve Criterion 4: Student's Position and Criterion 5: Conclusions. David Brown (Philosophy Professor) and Dana Delibovi (previous adjunct instructor) created a template for instructors to share with students that includes expectations for each paragraph. These expectations align with PACED model, BLUF statement, and critical thinking/analytical thinking rubric (which will be revised as needed). Further, Liz MacDonald provided essay writing walkthroughs in the form of a presentation and handbook. These valuable resources will be available for all faculty, adjunct instructors, and students.

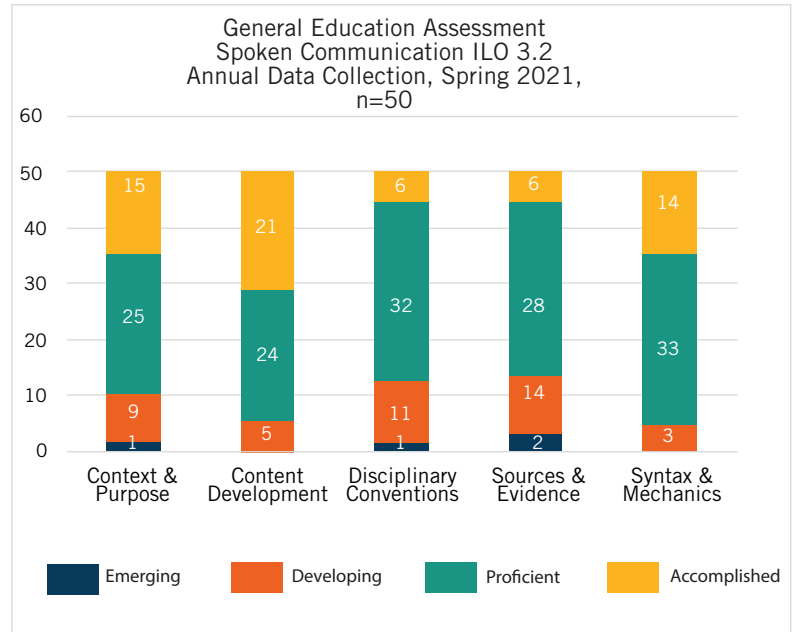
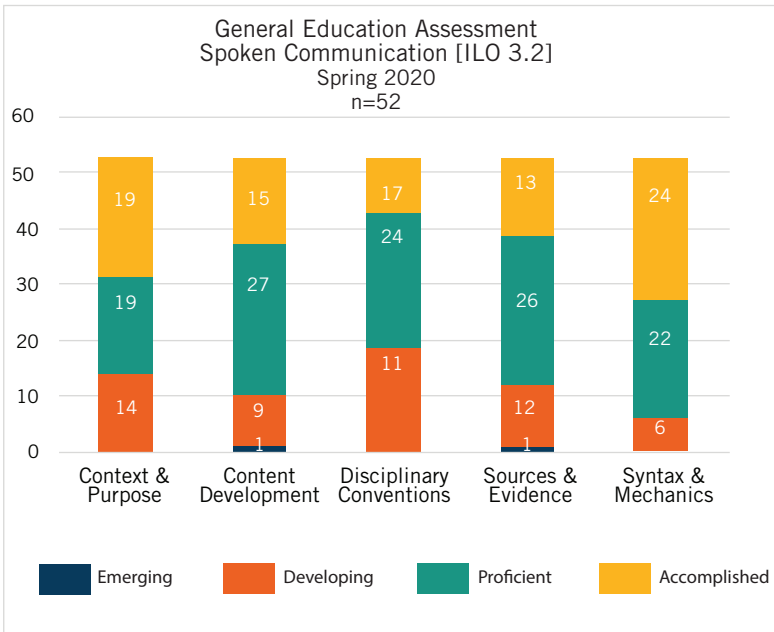
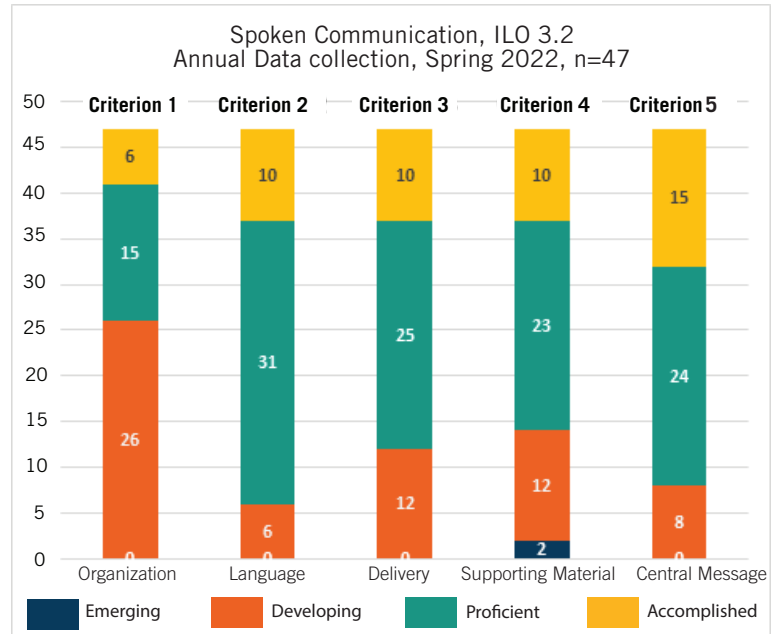
Pictured from left to right, top to bottom row: Graham Weir, Larry Acker, Liz MacDonald, Bob Steffes, David Brown, Robyne Elder



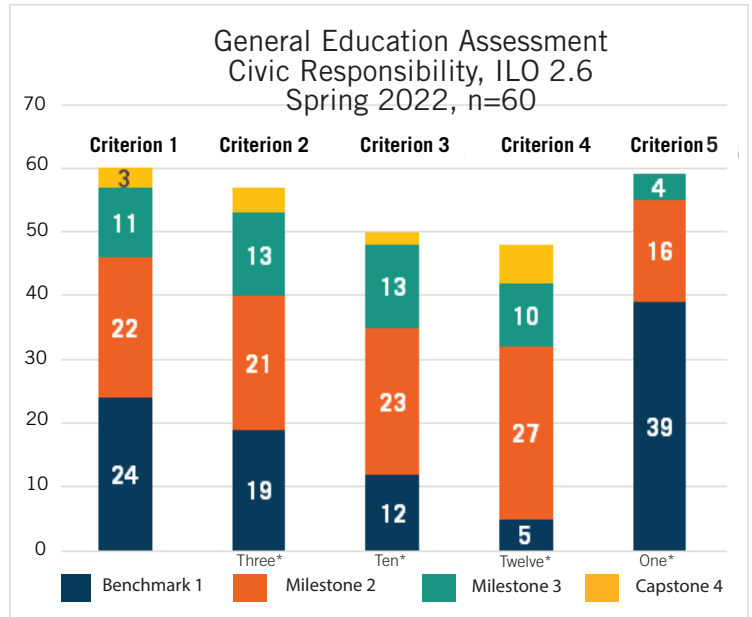
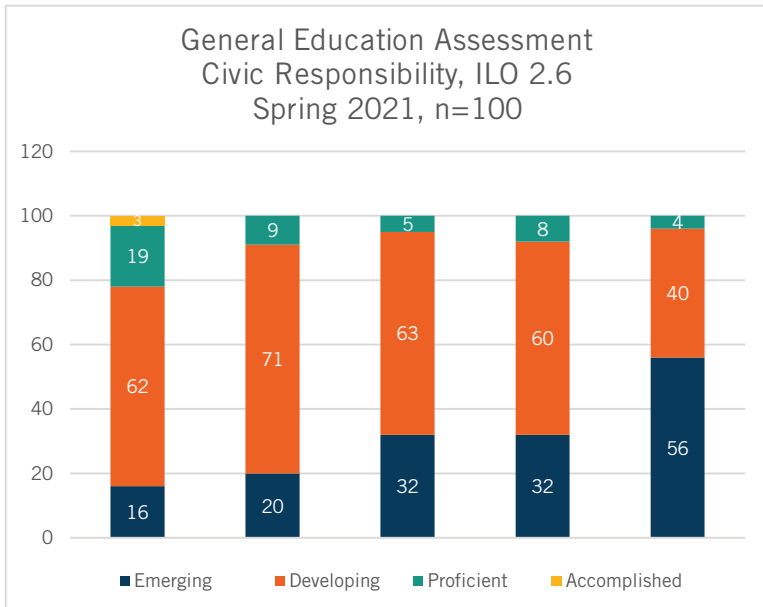
Reconvening of Communities of Practice: Spoken Communication & Civic Responsibility

In March, participants from the Community of Practice for Spoken Communication were able to reconvene, discuss the graduate attribute of Effective Communicator, and score artifacts for an annual data collection for ILO 3.2. This data collection aligned with Spoken Communication's FLIP, which focused on improving Criterion 3 (Delivery) and Criterion 4 (Supporting Materials) and making sure these improvements reached all instructors.

This FLIP came in the form of the Monday Morning Mentor series, through the Lindenwood Learning Academy, offered for all faculty, including adjuncts. Many trainings in the series focus on engagement for the online classroom, including presentations, as well as extending research, and note taking skills. One-hundred and seventy-two artifacts were sampled from Fundamentals of Oral Communication courses. Fifty were selected for scoring, however, three were not accessible and therefore 47 were scored by two members of the community. In 6% of the cases, a gap between the scores was greater than one so a third rater was used.



ANNUAL DATA COLLECTION FOR CIVIC RESPONSIBILITY



Criterion 1-5:

1. Diversity of Communities & Cultures
2. Analysis of Knowledge
3. Civic Identity & Commitment
4. Civic Communication
5. Civic Action & Reflection

*(0 scores included)



Pictured from left to right, top to bottom row: Mitch Nasser, Bob Steffes, Lynda Leavitt, Emilie Johnson, Sherrie Wisdom, Lisa Jacob, Graham Weir, Aaron Shilling, Barbara Hosto-Marti, Robyne Elder

Civic Responsibility

In March, participants from the Community of Practice for Civic Responsibility also reconvened to discuss the graduate attribute of Responsible Citizen. The community adopted a FLIP focused on Criterion 5: Civic Action and Reflection. The FLIP is still in the early stages however, the project would involve community service and course(s) completion and could also involve earning a credential or certificate in Civic Responsibility (or Responsible Citizen). One-hundred and twenty-six artifacts were sampled from American Government: The Nation courses. Sixty were selected for scoring and scored by two members of the community. In 23% of the cases, a gap between the scores was greater than one so a third rater was used.

Diversity in Spring 2022 Community Artifact Samples

To examine diversity in the data for the communities of practice, Aaron Shilling, Analyst, Research and Evaluation for Institutional Research, analyzed several categories for each sample of artifacts. For adaptive thinking, spoken communication, and civic responsibility outcome samples, the distributions of students across categories for gender, ethnicity, and Pell demographic variables were highly similar to their respective Fall 2021 undergraduate census distributions (all but one difference was near or below 10%). The lone exception was that there were fewer White students (46%) in the spoken communication sample than in the census population (62%).

Prior academic success, as measured by high school grade point average, appeared to be highly comparable between the spoken communication and civic responsibility samples and the census comparison, with means ranging within approximately a tenth of a point. On average, the analytical thinking sample had 0.23 more grade points than the census population, however.

Representation of the academic colleges was slightly biased towards Science and away from Business in both the analytical thinking and the spoken communication samples, with each sample containing approximately 20% more Science students than the census comparison. Also, the College of Education was not represented in the spoken communication sample. With respect to college level, there were noticeable biases towards lower-level students in the samples. Percentages for upper-level students were 25% for the adaptive thinking sample, 20% for spoken communication, and 20% for civic responsibility.