Background:
Librarians collected work from two College 101 assignments: a Canvas Research Activity introducing students to library resources and search strategies, and a Reflective Essay asking students to reflect upon their learning and research abilities. One hundred thirteen assignments were collected from two Fall sections and three Winter sections of the course. Twenty-seven samples of each assignment type were selected for formal assessment by librarians and faculty using rubrics developed for each, and included student work from on campus, hybrid, and fully online courses, and from hard linked and standalone sections. For the Canvas Research Activity, students were assessed on their abilities to identify the audience of sources; recognize the contexts, perspectives or biases authors may bring to sources; evaluate the fit between sources and the information needed; and to identify areas for continued development as researchers and information users. For the Reflective Essay, students were assessed on their ability to recognize and reflect on their learning and research processes, to envision how these skills and resources may apply to other contexts, and to identify strengths and areas of growth as learners, researchers, and information users.

Key results:

Canvas Research Activity
- Students performed well in identifying audiences of sources with 42% of students reaching a level 2 (developing) or 3 (advancing). Evaluating the fit of sources to their information need was another strong area, with 44% reaching a level 2 or 3.
- The majority of students (85%) identified one or more research skill to continue developing, with keyword selection and development commonly mentioned.
- Students performed less well in recognizing the contexts, perspectives or biases authors may bring to a source, with several (23%) scoring a level 0 (no evidence) and the majority (52%) scoring a level 1 (developing). Raters observed that students were not addressing these question prompts at all, and if they did, demonstrated confusion, were vague, and rarely went beyond noting author credentials or affiliations.
- Students in hard linked sections generated higher scores (levels 2 ‘developing’ and 3 ‘advanced’) across all criteria assessed, particularly in the online section which did not include in class library instruction.
- Level 2 (developing) and 3 (advanced) scores were more prevalent for the assignment deployed in one part (versus two as with other versions), and which bundled several question prompts together; this version also elicited the fewest level 0 (absent) scores compared to the others. However, raters did observe that many students neglected to address all components of the prompt when it bundled several questions together.

Reflective Essay
- Most students performed at a level 1 (beginning) or 2 (developing) across all criteria, and were strongest in comparing library research skills and resources to their typical information seeking processes and tools, with 62% scoring at a level 2 (developing) or 3 (advancing).
- In four of the five criteria assessed, 25-41% of students scored a level 0 (no evidence) and raters noted students responded to the essay prompts very generally, bypassing some altogether or offering overly broad or vague responses.
- Students performed well on envisioning how library research skills and resources may be applied in other contexts (69% scored a level 1 ‘beginning’ or 2 ‘developing’), and in identifying their strengths as learners, researchers, and information users (65% scored a level 1 or 2).
- Students performed less well in addressing how their background, worldview, and educational goals influence their information seeking and use, with 33% entirely skipping the prompt and 41% addressing it but displaying confusion about the concepts of bias and positionality.
- Many students (41%) offered no evidence (level 0) of identifying one or more areas for continued development as researchers and information users; of those who did, 29% did not offer detail (level 1...
‘beginning’) though 29% did (level 2 ‘developing’). Similar to the other assignment, many students noted wanting to improve with keyword development, and also frequently mentioned reading search results or sources (more quickly in particular). Students performed better on this outcome in the Canvas Research Activity than in this assignment.

Key recommendations:
1. Give students practice and instruction on assessing the audience of sources and the perspectives authors may bring to producing them, and on how their own positionality may affect their information seeking and use. For example: ask students their own perspective on a sample topic and have them articulate how it might bias them as an audience member or as an author; or have students identify the purpose of a source and describe how they [or some other population] would access and use it.
2. Offer more support to students for engaging in reflection, be explicit about why it is of value to them, and consider assigning it closer to the conclusion of the process to reflect upon. Provide more specific prompts and instruction. For example: ask how students would use the skills/tools or what they helped them do; have students make a list of action items they need to do next, differently or better; and in the Canvas Research Activity, consider having students reflect across all tools and sources holistically rather than on each one separately.
3. Be mindful of when to bundle or parse apart question prompts. Some concepts may be more suitable for one format or the other depending on the level of student engagement needed or sought.

Rubric scores for College 101 student work:

Criterion 1: Identifies audiences of sources
Criterion 2: Recognizes contexts, perspectives or biases authors may bring to sources
Criterion 3: Evaluates the fit between possible sources and the information need
Criterion 4: Identifies areas for continued development as researchers and information users
Criterion 1: Demonstrates awareness of how library research skills and academic library resources compare to their previous or typical information seeking processes

Criterion 2: Envisions how research skills and use of library resources may be applied in other contexts

Criterion 3: Reflects on how their own background, worldview, and educational goals affect their approach to information seeking and/or use

Criterion 4: Identifies their strengths as learners, researchers, and information users

Criterion 5: Identifies areas for continued development as learners, researchers, and information users