Critical-Inclusive Pedagogical Framework
Toolkit for Assessing Learning

Dialogical Professor-Student Interaction
- Collaborative Rubric Design
- Collaborative Student Learning Outcome Development
- Learning Check-Ins

Faculty-Student Interaction
- Collaborative Rubric Design
- Collaborative Student Learning Outcome Development
- Learning Check-Ins

Sharing Power
- Collaborative Rubric Design
- Collaborative Student Learning Outcome Development
- Group Assessment

Utilization of Personal Narrative
- Day One Questionnaire
- Personal Learning Goals
- Research Process Maps
- Self-Assessment

Activation of Student Voice
- Critical Friends Groups
- Group Assessment
- Learning Check-Ins
- Self-Assessment

* Indicates an assessment that can be used in one-shot instruction
Collaborative Rubric Design

In Collaborative Rubric Design, students work with the course instructor to co-create the rubric that is used to score an assignment. Through this process, students decide which parts of an assignment will be graded and how much the assignment contributes toward their final grade.

CIPF Tenets

- Dialogical Professor-Student Interaction
- Faculty-Student Interaction
- Sharing Power

Implementing Collaborative Rubric Design

- Provide students with a past rubric as a starting point for discussion. This can be a rubric you created as the teacher.
- Provide a blank rubric and ask students to consider which components of the paper they want feedback on and which components they want scored (e.g. Introduction, Methods, Analysis if it’s a research paper rubric).
- Guide a class discussion about these components and finalize the rubric components together.
- Guide a class discussion about rankings (e.g. Excellent, Good) and the points associated with each ranking.
- Develop the rubric content through a discussion of what students want the teacher to look at and what you as the teacher expect to see. Begin with the highest ranking and work toward the lowest ranking.
- If a rubric is used for subsequent drafts of an assignments, go through a collaborative revision process to update the rubric for each draft.

Tips & Best Practices

- Introduce the activity at least one class period before implementing it in the classroom. This provides time out of class for students to consider how they want to develop the rubric as preparation for the class discussion.
- Schedule more time for this activity than you think you need. This has taken us an entire 50-minute class period to develop.
- Participate with students – if you have concerns about a decision they are making, express your concerns. This is your rubric too!
Examples of Collaborative Rubric Design in Practice

This is an example of a blank rubric that students will get to start brainstorming. Teacher and students collaborate to develop the grading rubric by filling in the content area being assessed and the evaluation scale.

Students determined the evaluation scale categories – in this example, they chose You Suck and Charity Points

This is an example rubric created by students in a 100-level course. The rubric is for a final assignment where students write a literature review on a topic of their choice.

Students work in pairs to determine the paper components they want scored (e.g. Conclusion) and then determine rankings (e.g. Good, Needs Improvement) and points associated with each ranking.

Students decided that they only wanted feedback on their APA in-text citations and reference lists on the first draft

<table>
<thead>
<tr>
<th>Paper Content area</th>
<th>Evaluation Scale</th>
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<tbody>
<tr>
<td></td>
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<td>Good (9)</td>
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<td>Average (8)</td>
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<tr>
<td></td>
<td>You Suck (7)</td>
</tr>
<tr>
<td></td>
<td>Charity Point (6)</td>
</tr>
</tbody>
</table>

**Introduction**

- Discusses your research question and why it is important to have the answer to this question. Takes the essay and explains importance. Clearly provides background information.

- Discusses research questions but does not discuss importance. Provides minimal background information that does not set the stage for the paper.

- Minimal effort on the introduction. No discussion of the question or its importance. No background information.

- No effort on the introduction is evident.

**Literature Review**

- Discusses specific research relevant to your research question. Includes at least five credible sources. At least two of these are from research studies. Provides research in either chronological or thematic order. Organization is clearly chronological or thematic.

- Includes at least four sources but does not include research studies. Thematic or chronological order is not evident. Does not provide an in-depth discussion of the literature.

- Minimal effort on the literature review. Less than four sources are cited and there is a limited discussion of your research.

- No effort on the literature review is evident.

**Discussion**

- Provides an answer to the question and a recommendation. Any research that is used to support the answer to the question is discussed. The answer is not connected to the literature. Discusses a solution/recommendation but does not draw from the literature. Discusses future research.

- Provides an answer not connected to the literature. Does not provide a solution/recommendation. Does not discuss future research.

- No effort on the discussion section is evident.

**Organization/Syntax**

- Fluent, clear, well-organized sentences. At least three articles per theme.

- Some errors with organization causing the reader to misinterpret the dissertation sections. Themes are well thought out but only two articles per theme. Further attempts evident of the dissertation.

- Themes do not make sense. Some sections have only one article per theme, thus cannot be evaluated.

- No effort on the organization/syntax is evident.

**APA Paper Formatting**

<table>
<thead>
<tr>
<th>Grade</th>
<th>0</th>
<th>1-5</th>
<th>6-8</th>
<th>More than 8</th>
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</thead>
<tbody>
<tr>
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<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
</tr>
</tbody>
</table>

**APA In-Text Citation**

<table>
<thead>
<tr>
<th>Grade</th>
<th>0</th>
<th>1-5</th>
<th>6-8</th>
<th>More than 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
<td>Feedback No Grade</td>
</tr>
</tbody>
</table>
Collaborative Student Learning Outcome Development

Through Collaborative Student Learning Outcome Development, on the first day of the semester, students work with each other (and the instructor) to determine their shared learning goals for the class.

CIPF Tenets

- Dialogical Professor-Student Interaction
- Faculty-Student Interaction
- Sharing Power

Implementing Collaborative Student Learning Outcome Development

- Introduce the course to the students as you would on any first day of class.
- Once you have answered any questions about the class, ask students to take a moment to develop a few personal learning goals for themselves. Essentially, they will think about what they want to get out of the class.
- Have students partner and share their personal learning goals. Students should take note of any similarities that exist in their goals.
- Once the partners have discussed, ask the partners to share their goals with another set of partners. A group of four to five students is best.
- After short discussions among the small groups, ask each group to develop a short list (up to five) of their shared learning goals. These should be goals that most students in the group agree are important.
- Once the short lists have been compiled, ask each small group to share with the class one learning goal. The instructor will write each goal on the board as they are shared. After each group shares, call for any additional goals that students want listed.
- Once all learning goals are represented on the board, engage the class in a discussion about the final list of student learning outcomes. Bring in the learning outcomes that you developed for the class, identifying parallel goals.
- Through open discussion and negotiation, collaboratively develop a final list of student learning outcomes.

Tips & Best Practices

- Give yourself plenty of class time for this activity (for us, it took most of a 50-minutes class period). You will also need time outside of class to align student learning goals with the established learning outcomes for the class.
- Remember that this activity is about engaging in dialogue with students. The final learning outcomes should be negotiated between you and the students.
Examples of Collaborative Student Learning Outcome Development in Practice

As a first step to this activity, we ask students to develop a few personal learning goals for the class. The following are questions we asked the students to consider before developing their goals.

- What is your biggest concern about research?
- What do you struggle with most when you get assigned a research project?
- What do you struggle with most when you have to decide on a topic?
- What do you struggle with most when you have to find sources for an assignment?

This image to the right illustrates how we mapped the students’ negotiated learning goals to the student learning outcomes determined for the class. Both sets of outcomes appeared in the final course syllabus.

In this example we have instructor goals and student goals separated, and we mapped the student goals to the instructor goals to indicate alignment between the two sets of goals. In future iterations we combine the student and instructor goals to create one set of negotiated goals. This is more aligned with the tenets of Dialogical Professor-Student Interaction, Faculty-Student Interaction, and Sharing Power.
Critical Friends Groups *

The Critical Friends Group (CFG) is a collaborative method of assessment that combines peer observation and dialogue with self-reflection and self-assessment. For students, the CFG is long-term peer review that happens throughout the course. The CFG is more collaborative than your typical peer review and provides space for students to build community in the classroom.

**CIPF Tenets**
- Activation of Student Voice

**Implementing Critical Friends Groups**
- Determine the purpose of the Critical Friends Group, which can be different depending on the type of course you are teaching. Ask yourself if students will use these groups for in-class discussion, out-of-class meetings, writing peer review groups, or a combination. This will help you determine how to set up the groups.
- Set up the Critical Friends Groups.
  - Instructor Created Groups (e.g. group students by major or interest).
    - **Pro:** students can be grouped by major or discipline, which is helpful if students are commenting on research and writing.
    - **Con:** this is a top-down way to make groups and a critically-minded educator may not want to determine group make-up.
  - Student Created Groups.
    - **Pro:** students may be more comfortable in groups they create.
    - **Con:** students may group with their friends; thus, they may be less likely to be critical of group members’ work.
- Develop the CFG activities. The activities will depend on the purpose.

**Tips & Best Practices**
- Pre-assign groups based on major or interest.
- Groups should consist of three to four students. While two per group can work, having more than two is ideal so that students can get the perspective and experience of more than one person.
- Watch for dominating voices. CFG activities that provide a time limit for each student helps to avoid this issue.
- Develop in-class activities that require students to be in their CFG in most class meetings, even if only for a short time during class. This solidifies their importance.
- The time commitment can vary depending on the purpose of the CFG and the CFG activity. CFG meetings can go from 15 minutes to an entire class.
Examples of Critical Friends Groups in Practice

In a 200-level course focused on developing a research study, students were assigned into a Critical Friends Group (CFG) on the second day of class. In this course, the CFG was used as a peer review and discussion group. Students provided feedback to each other on topics, research questions, selected sources, and written drafts. There was time set aside during each class for students to meet with their CFG. There were always guiding questions for the group time.

The example on the left is the first CFG activity of the semester. Students were assigned a reading and reflected on their personal beliefs about their strengths and weaknesses in relation to the research process. In class they shared their reflection with their CFG. This provided an opportunity to discuss strengths and weaknesses with the peers they were working with for the semester. The activity on the right is a peer review discussion that was held at the end of the semester.

**Day Two CFG Introduction Prompt**

The Critical Friends Group is your new support group. This is the team that will give you honest feedback and advice on your project topic, proposal, and literature review. The group will work together to help each group member on his/her weakness. If you have a strength that can help a critical friend, offer help.

Activity: Share your reflection on *Inquiry: The Necessary Precondition* with your CFG. Each group member should discuss their reflection for 3-5 minutes.

**CFG Peer Review Activity**

<table>
<thead>
<tr>
<th>Peer Review Rules</th>
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<tbody>
<tr>
<td>1. Only one CFG member should speak at a time. Do not combine the review discussion; each CFG member has the opportunity to discuss each paper.</td>
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<tr>
<td>2. Do not speak while your reviewer is speaking unless you are asking for clarification.</td>
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<tr>
<td>3. Make notes while your reviewer is talking (instead of talking).</td>
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</tbody>
</table>

**Peer Review Discussion**

**Discuss Paper 1**

- Present your overall impressions on the review using the Draft 1 Peer Review questions.
- Go over the answers to the worksheet with the author.
- Discuss the strengths of the paper.
- Discuss how the paper can be improved.

**Discuss Paper 2**

- Present your overall impressions on the review using the Draft 1 Peer Review questions.
- Go over the answers to the worksheet with the author.
- Discuss the strengths of the paper.
- Discuss how the paper can be improved.

**Discuss Paper 3 (if applicable)**

- Present your overall impressions on the review using the Draft 1 Peer Review questions.
- Go over the answers to the worksheet with the author.
- Discuss the strengths of the paper.
- Discuss how the paper can be improved.

**Draft a Plan for Revision**

After each CFG member has gone through review, you need to (individually) develop a plan for revision. Indicate changes you will make in response to the CFG comments. Explain any decisions to disregard a specific comment or suggestion. This is due before you leave class and can be handwritten.
Day One Questionnaire *

The Day One Questionnaire is a quick exercise to gauge the curricular interests and preferences of your students at the start of a semester. The Day One Questionnaire asks students to share their preferences on course content and delivery.

*CIPF Tenets
- Utilization of Personal Narrative

Implementing the Day One Questionnaire
- Develop a quick questionnaire asking questions that you feel are important for your particular class. The questions can vary, but some questions we’ve asked are:
  - What do you hope to take away from this class?
  - When it comes to research for a writing assignment, when do you feel most confident?
  - In what ways do you feel you learn best?
  - In what ways do you prefer to receive feedback?
- After class, review the answers your students provided. Determine where you can make curricular or pedagogical changes to be responsive to your students’ needs and preferences.

Tips & Best Practices
- Use this quick assessment as a first-day activity to get to know your students as members of a classroom community.
  - For one-shots, implement this a day or two before the session.
- Be prepared to make actionable changes based on the answers your students provide. For example, if a majority of students prefer to learn through group activities, be sure your curriculum is flexible enough to accommodate multiple group activities.
- Be transparent about how and where your students’ responses to the Day One Questionnaire have influenced your decisions.
- Be sure to use a questionnaire tool that will allow for quick and easy analysis of the data. We like to use applications like Qualtrics (as seen in example) or quiz applications in the learning management system.
- Provide sample answers to the questions so that students can rank their preferences. Also, be sure to include an open-text option in case the options you’ve provided don’t include all preferences.
- While it takes some time to develop and analyze, the Day One Questionnaire should only take students 5-10 minutes to complete.
Examples of the Day One Questionnaire in Practice

Q3 - In what ways do you feel like you learn best?
Please choose all answers that apply.

- Listening to lecture and taking notes
- Discussing topics with a partner
- Class conversations
- In-class activities
- Preparing for and taking tests/quiz exams
- Reflecting on experiences
- Other

We’ve implemented multiple iterations of the Day One Questionnaire in our 100-level courses. In this particular class, students told us that they preferred to learn by listening to lecture and taking notes. We also learned that they were open to participating in class conversations and other in-class activities. With this information, we were able to develop our lesson plans with students’ preferences in mind.

Of course, this didn’t mean that lecture was the only method of teaching we employed during this semester. This information simply let us know that this group of students was receptive to lecture-style learning, which allowed us to plan lectures when appropriate in the curriculum.
Group Assessment *

Group Assessment entails asking small groups of students to collaboratively complete a short, in-class task. It is a great way to determine where your students are, as a whole, in their understanding of a particular concept or topic. We find this exercise to be particularly useful when dealing with topics that students tend to find less engaging, such as learning about citations.

CIPF Tenets
- Activation of Student Voice
- Sharing Power

Implementing Group Assessment
- Use this activity as an introduction to a topic. When we implement this exercise, we do a quick 5-10 minute introduction of the topic in general. We then explain to the students that this exercise will help us determine where we should focus our attention in future lectures and discussions.
- Develop a simple, formative assessment for the topic. We like using the self-graded quiz formats available through our learning management system.
- Randomly assign students into small groups (two-three students) and ask them to collaboratively work through the assessment.
- After class, analyze the data gathered from the group assessment. Determine where the students may need a simple overview of a concept or more in-depth discussions.
- Use this information to direct your future lesson plans, making sure to address any perceived gaps in students’ knowledge.

Tips & Best Practices
- During the group assessment, encourage the students to learn from each other by talking out their rationale for a particular answer.
- Note how students go about finding the answers to the questions of the group assessment. Understanding students’ information-seeking habits could help inform how you structure future assignments and activities.
- Be sure to discuss with students how the group assessment has helped to structure future classroom activities.
- Use this as a quick, in-class assessment. We typically dedicate 20-30 minutes of a class period for this assessment, including the brief overview.
Examples of Group Assessment in Practice

We’ve used this exercise when introducing APA citations to our students. We developed a short, 10-question, multiple-choice practice quiz for small groups to complete. We told the students to use any notes, readings, or web resources to help them answer the questions.

The multiple-choice format helped us to quickly analyze the results of the practice quiz. In the example to the right, we saw that only six of the 12 groups responded correctly to this question about in-text citations. With this information, we developed lesson plans and activities that asked students to practice their in-text citation skills.

Which of the following is the correct in-text citation for a quote from this passage?

"From the weekly shopping list to the Ten Commandments, our lives are governed and dominated by lists. Whether created to impose a sense of order in an otherwise chaotic world or as a simple memoir, they are an inescapable fact of life." (page 6)

from:

A) According to Kirwin (2010), lists are "an inescapable fact of life" (p. 6).
B) According to Kirwin, lists are an "inescapable fact of life" (L. Kirwin, p.6).
C) According to Kirwin (2010, p. 6), lists are an "inescapable fact of life."

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<thead>
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<tbody>
<tr>
<td>A</td>
<td>6 respondents</td>
<td>50%</td>
<td>✓</td>
</tr>
<tr>
<td>C</td>
<td>4 respondents</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0 respondents</td>
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</tr>
<tr>
<td>No Answer</td>
<td>2 respondents</td>
<td>17%</td>
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</table>
Learning Check-Ins

A Learning Check-In is an opportunity for students to reflect on their own learning at various points in the course. The course instructor will provide prompts for the student to reflect on how they are progressing in the course, or on a scaffolded assignment. Learning Check-Ins should be given at least twice so that students can reflect on their learning at more than one point. For example, a mid- and end of class check-in lets student reflect on their progress. Learning Check-Ins can be combined with goal setting so that students can take more control of their learning.

CIPF Tenets
- Activation of Student Voice
- Faculty-Student Interaction

Implementing Learning Check-Ins
- Determine the purpose of the Learning Check-Ins for your course.
- Determine how many Learning Check-Ins you want in the course and determine when in the course they will come.
- Develop the Learning Check-Ins based on your course content. The check-ins can be about a specific assignment, such as a scaffolded paper or project. The check-in can also be about one or more learning outcomes of the course.
- Provide the prompt to students as an out-of-class assignment so that they have time to reflect on their learning.
- Use the data from the Learning Check-In to determine any adjustments to the course curriculum or any areas where clarification is needed, either about course content or assignments.

Tips & Best Practices
- If you use a Learning Check-In consider also implementing a self-assessment at the start of a course (p. 19). Reflection works best if students have a baseline for reference. They are better able to evaluate their progress if they know where they started.
- Add goal development to a mid-course Learning Check-In. Students take more control of their learning if they are working to meet their own goals (see an example on p. 14).
- Use the Learning Check-In as an opportunity to provide individual coaching to each student. You can answer questions, respond to concerns, and provide encouragement.
- The time commitment can vary depending on the purpose of the Learning Check-In and how you design the check-in. The examples on p. 14 are in depth and were done outside of class.
Examples of Learning Check-Ins in Practice

Course Learning Check-In
This is an example of a Learning Check-In used for students to reflect on their learning at the mid-point of a research skills course. Note that the students are asked to refer to a self-assessment to discuss their learning progress in the course. They also discuss their own goals as new researchers. The End-of-Year Check-In asks students to reflect on their learning in relation the course learning outcomes.

Mid-Course Learning Check-In:
Reflect on what you’ve learned so far in class and what you need to work on to improve your own research skills. Refer to the first day’s self-assessment and discuss if you would answer any of these questions differently today. Discuss your own goals as a researcher.

End-of-Year Learning Check-In:
1. Reflect on what you’ve learned in LIB 151. Refer to the first day’s self-assessment – would you answer any of these questions differently today? Discuss any changes in your research process over that last eight weeks.
2. The intended student learning outcomes for LIB 151 are:
   - Students will be able to develop a research strategy
   - Students will be able to access needed information
   - Students will be able to evaluate information
   - Students will be able to develop an argument supported by evidence
   Please discuss how you feel the course helped you to achieve these goals. Is there an outcome(s) that you feel were not met? Reflect on what you’ve learned in the course that is not expressed in these outcomes. Reflect on outcomes you feel are missing from this course. Reflect on your own goals as a researcher and consider how you will level-up your current skills after this class as you move into LIB 251.

Assignment Learning Check-In
In this example, we first ask students to answer questions about their writing progress, and then ask them to develop goals for the second draft of a paper and strategies for achieving those goals.
1. What do you see as the strengths in your writing?
2. Where do you see places for improvement in your writing?
3. What will you change in your second draft and why?
4. Who or what helped you most when writing your literature review? How?
5. What was the biggest hurdle you encountered when writing your literature review? How did you overcome this hurdle?
6. What are your goals for the second draft of the literature review and how will you achieve those goals?

<table>
<thead>
<tr>
<th>Goal</th>
<th>Strategy for Achieving Goal</th>
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Check-In with Goal-Setting
1. For the two questions below, refer to the goals you set in your Draft 1 self-evaluation.
   - Discuss the goals you met and reflect on how you met those goals and how they improved your second draft.
   - Discuss the goals you did not meet and reflect on why you did not meet those goals and if that affected your second draft.
2. How do you think you improved from Draft 1 to Draft 2?
3. What do you see as the strengths in your writing and has this changed since Draft 1?
4. Where do you see places for improvement in your writing? Has this changed since Draft 1?
5. What was the biggest hurdle you encountered when writing your second draft?
Personal Learning Goals

Students have a lot to say about their own learning, teachers just tend not to always listen. A great reflection exercise is to have students reflect on their own personal learning goals. Knowing students’ learning goals is essential to creating a course or session that meets their needs. This also provides students a benchmark to reflect on their own learning throughout a course. Personal Learning Goals complement Collaborative Learning Outcome Development (pp. 5-6) and Learning Check-Ins (pp. 13-14).

CIPF Tenets
- Utilization of Personal Narrative

Implementing Personal Learning Goals
- Develop your Personal Learning Goals prompt (see examples on p. 16). Consider what you want students to think about.
- Introduce the prompt during the first or second day of the course.
- Analyze the data and use the data to develop the course syllabus. This may mean adding an additional day for certain assignments or adjusting the order of content to meet student needs.
- Map student goals to course learning outcomes.
- Share data with students.

Tips & Best Practices
- Don’t implement Personal Learning Goals if you don’t intend to use the information. If you want to engage students in any phase of course development, you should listen to, and act on, what they have to say.
- A Personal Learning Goals activity should take place in the first week of a course. We recommend day one or two. The class time will vary depending on the length of the activity you design, but typically takes students 15-20 minutes.
- Use the data to develop the syllabus.
- Map course outcomes to students’ personal goals.
- It can take a few hours to analyze students’ personal goals, map them to the course outcomes and update your schedule. Set aside time directly after class to do this work.
- Refer to students’ Personal Learning Goals throughout the course; map each day to expressed student goals.
- Supplement Personal Learning Goals with Learning Check-Ins (pp. 13-14) to provide space for students to reflect on their own learning and set new goals.
Examples of Personal Learning Goals Practice

Example of a Personal Learning Goals Prompt

Discuss the top three things you want out of LIB 160 this semester. These can be research related skills, concepts, or knowledge areas. For example, you may want to gain skills in APA or you may want to get better at selecting relevant sources.

Using Student Goals in Course Development

Responses to this prompt included “get better at organizing the evidence found from my sources;” “I want to be able not [to] struggle so much while trying to narrow my research topic;” and “be more time efficient and detailed in my research.”

While we had a draft schedule created for this course, the student responses prompted changes to the final schedule. We went over the schedule in detail on the second day of class, discussing how each day’s lessons, activities, and assignments mapped to the students’ Personal Learning Goals. When handing out the course schedule, we showed students how their responses mapped to the overall course goals.

<table>
<thead>
<tr>
<th>Develop an argument supported by evidence.</th>
<th>APA Formatting and Citations (29 comments)</th>
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</thead>
<tbody>
<tr>
<td>Consistency in writing research papers so that it becomes second nature</td>
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<tr>
<td>being able to write a paper that is scholarly</td>
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<tr>
<td>Cohesive paragraphs just relating to one topic</td>
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<tr>
<td>I would like to be able to determine how much research is too much research. For example how to I condense the information and apply to my project while still keeping it at an appropriate amount.</td>
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<tr>
<td>Better my writing skills</td>
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<tr>
<td>Creating one solid theme for the whole paper</td>
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<tr>
<td>Creating and maintaining a strong thesis statement without necessarily deviating from it throughout the course of the project.</td>
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<tr>
<td>be confident in my writing</td>
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<tr>
<td>Working sources into my papers more smoothly</td>
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<tr>
<td>Concepts of how much or how little quoting is appropriate</td>
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<tr>
<td>I want to be able not struggle so much while trying to narrow my research topic.</td>
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<tr>
<td>Placing my researched sources throughout my essay</td>
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<tr>
<td>Explanations of sources</td>
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For an example of Personal Learning Goals combined with a Learning Check-In, see p. 14
Research Process Maps

By asking students to produce Research Process Maps, you are asking them to share the steps they take when embarking on a research project. Research Process Maps can be a unique and engaging exercise to understand students’ individual research processes.

CIPF Tenets
- Utilization of Personal Narrative

Implementing Research Process Maps
- Use this exercise as a stand-alone assessment at the beginning of a class or just before introducing a substantial research project, or as a pre-post test assessment for a course or substantial research project.
- Provide students with a large sheet of blank paper (we like 11”x17” size sheets). Offer crayons, markers, or colored pencils to encourage creativity and the use of illustrative techniques.
- For use at the beginning of a class or project, provide students with the following prompt:
  o Think about a time when you had to research something for school. How did you start your research process? Where did you go from there? Map out the research process you personally follow, from selecting a topic to turning in the final research project.
- For use at the end of a class or project, provide students with the following prompt:
  o Take a few minutes to reflect on your research process. How has it changed? How has it stayed the same? Map out the research process you think you will follow for future research projects, from selecting a topic to turning in the final research project.
- Analyze the information provided to help inform future pedagogical decisions.

Tips & Best Practices
- If done in class, dedicate a minimum of 15-20 minutes for this exercise to ensure that students have adequate time to reflect on and then articulate their personal research processes.
- Determine how you will analyze the data you’ll receive in these maps. Analyzing visual data can be a very different process than analyzing textual data. Do a bit of homework to determine which method you will use to interpret this information.
- If using Research Process Maps as a pre-post test assessment, be sure to match up the first and second maps by student. This will allow you to see progression or depth of learning for an individual student.
Examples of Research Process Maps in Practice

Below is an example of what we determined to be Deep Learning by a student in one of our 100-level courses. Notes from our analysis can be seen on the maps.

Map 1 illustrates a basic approach to the research

Map 2 displays new concepts and more nuanced connections between ideas.
Self-Assessment *

Self-Assessment works to question traditional classroom dynamics by asking students to take on the role of assessor. Through self-reflection, students answer questions about their own skills and knowledge to self-assess and identify where gaps may exist in their knowledge and skills.

CIPF Tenets
• Activation of Student Voice
• Utilization of Personal Narrative

Implementing Self-Assessment
• On the first day of class, or when beginning a new task or discussion of a new concept, ask students to answer a set of questions about their own knowledge and skill. This will involve students to self-reflect and answer honestly.
• These questions can vary depending on the level of your students or what you specifically would like to know – however, some standard questions to ask are:
  o Which steps in the research process do you think you currently do well?
  o In which steps do you think you need to develop more knowledge and skill?
  o What do you think are the most difficult steps for you to complete? Why?
  o What do you think are the easiest steps for you to complete? Why?
• Analyze students’ answers. Determine areas where students felt they need the most support as well as areas in which students felt confident in their knowledge or abilities. Use this information to develop specific lesson plans for the course that respond to students’ outlined needs and learning goals.

Tips & Best Practices
• Ask questions that allow you to make actionable changes to your curriculum.
• Be transparent with students about how their answers influenced curricular decisions in the class.
• This can be done as a short in-class exercise or as a take-home assignment.
Examples of Self-Assessment in Practice

We’ve implemented a version of Self-Assessment in a 100-level course. We were interested in asking students about their confidence levels regarding certain tasks associated with the research process.

Using this activity as a pre- post- test assessment, the first image on the left is an example of the type of questions we asked in the first Self-Assessment. The second image exemplifies the type of reflective question we asked students at the end of the course. Both ask students to examine their own research habits, but provide significantly different forms of assessment data that can be used for curricular development.

**Research Process Self-Assessment. Week 1 of Class.**

**Personal Reflection/Self-Assessment. Final week of Class.**

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**Research Process Self-Assessment:**

**Question 5**

How skilled are you at doing each of the following when conducting research for your assignments?

- I can find articles relevant to my research question
- Not at all skilled
- Somewhat skilled: I have a general idea of what to do
- Moderately skilled: I can do most of the steps for easy assignments
- Very skilled: I can do this competently for straight-forward assignments
- Extremely skilled: I can do this proficiently for complex assignments

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**Personal Reflection/Self-Assessment:**

**Question 3**

After taking this class, what have you learned about yourself as a researcher?

I honestly don’t even know where to start. Before this class I hadn’t done this kind of in-depth research before, and it was absolutely terrifying and overwhelming. Now, I have a full literature review, and I feel very confident in my research abilities. I feel like I’ve become a much more professional, organized writer and am able to express my thoughts in a more comprehensible way.