The Use of Reflection in HIPs:

Undergraduate Research in Research Methods

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Participant Learning Outcomes

Participants will identify the elements of undergraduate research as a high -impact practice.

Participants will identify opportunities for student reflection within the research process.

Participants will describe best practices for critical reflection in undergraduate research

CUREs.

Elements of a HIP

Students are provided timely and frequent feedback

Students reflect on their learning

Students apply learning in real-world contexts

Students experience diversity or difference

Students have meaningful interactions with peers and faculty

Students devote considerable time and effort

Students are expected to perform at high levels

Students publicly demonstrate their competence

What topics are generally covered in a research methods course?

Mentimeter

Research Methods

Student Learning Outcomes, CRJU 3301:

1. Explain the process of research as a rational and systematically organized sequence of events

2. Identify the basic concepts and techniques necessary to understand the research process

3. Critically assess research reports and use research in criminal justice practice

4. Justify and use various research designs and outline the different purposes of research

5. Prepare basic approaches to data collection methods

6. Describe the principles of analyzing data

7. Describe and explain the different purposes of research

8. **Submit a research proposal**

STOP AND BRAINSTORM

Essential Elements of a HIP

Brainstorm some ideas about how you could effectively meet the expectations for a "high impact" project in the context of undergraduate research in research methods.

https://drive.google.com/drive/folders/1lmEiB6gKqvhX_-5xKxrfJoMV0GOVxIpSP?usp=sharing

Reflection as HIP

Periodic, structured opportunities to reflect and integrate learning

Example: Linked courses in a learning community wherein an instructor of one course designs assignments that require students to draw on material covered in one or more of the other linked courses, supplemented by a peer preceptor who coordinates student attendance and discussion at relevant campus events, or a capstone course in which students submit a portfolio and explain the relative contributions of the artifacts contained therein that represent the knowledge and proficiencies attained at various points during their program of study.

Opportunities to discover relevance of learning through real-world applications

Example: An internship, practicum, or field placement that requires that students apply the knowledge and skills acquired during their program of study, or supervisor-mediated discussions among student workers that encourage students to reflect on and see the connections between their studies and experiences in the work setting.

Reflection throughout the semester

- Critical reflection - metacognitive activities to reflect on the learning process

- Reflective practices specifically related to steps in the research process

- How do general topics in a methods class facilitate regular reflective practice?

DEAL Model for Critical Reflection (Ash & Clayton, 2009)

Describe (1)

Examine (2)

Articulate Learning (3)
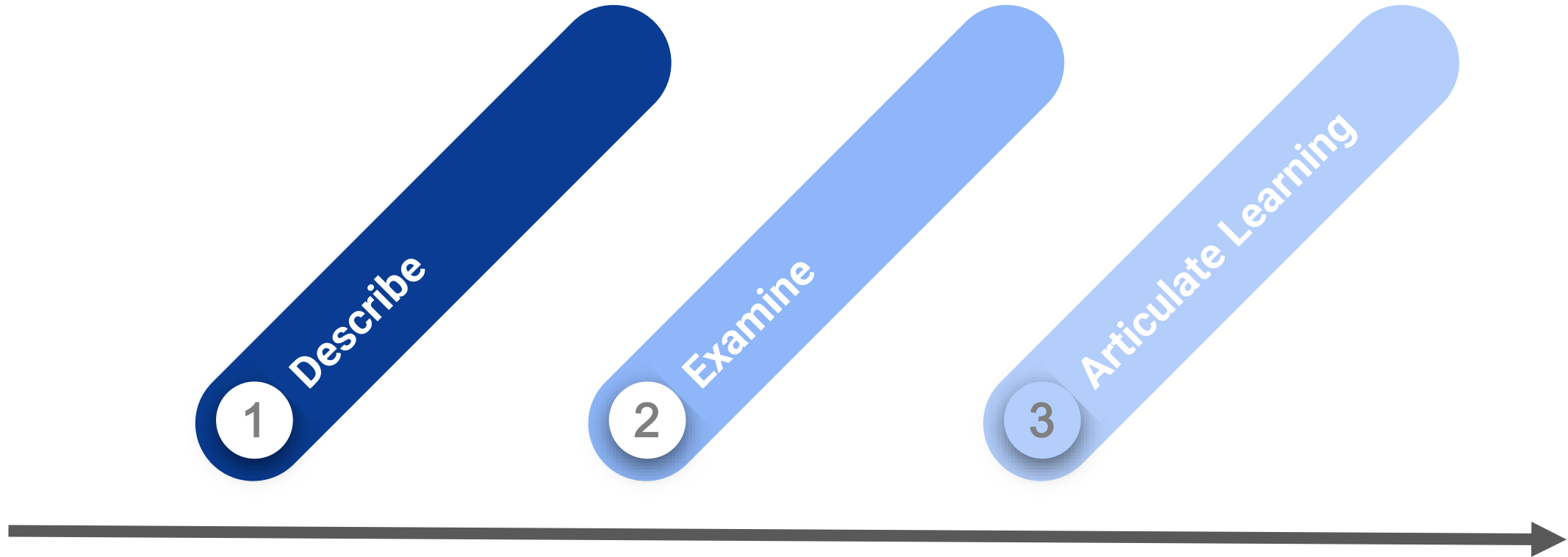
The research process as reflective

QUESTION/ PROJECT	PREVIOUS WORK	MATERIALS/ METHODS	FINDINGS/ DISCOVERY	IMPACT
What is my research question or my creative project, and why do I care?	What have others done, and what did they find?	What could I do to answer this question in a novel way? AND How do I make sure the work I do maintains the integrity needed to draw conclusions?	What did I find, and does it provide me with answers to my question?	How do these answers broaden or deepen our understanding? AND How do they apply to the real world?

Undergraduate research in research methods

- Course Based Undergraduate Research (CURE) is a natural fit
  - Embedded into a specific course
  - Allow participation by a greater number of students – increases equity
- Many ways in which to engage in CUREs
  - One recurring issue is related to data collection and/or analysis - utilizing a methods course in particular can help solve this
  - Topics related to data collection, management, and analysis are typically covered in the class already
- Strategies:
  - Use existing/secondary data
  - Collect primary data on research topic
  - Public Opinion Research:Kortz & van der Hoeven Kraft, 2016 (link)

Course Assignment: Research Proposal

Research Proposal Assignment

- Introduction

- Research Question

- Literature Review

- Research Design

- Sample

- Plan for Data Sources

- Preliminary Evidence

- Secondary data/Public opinion data
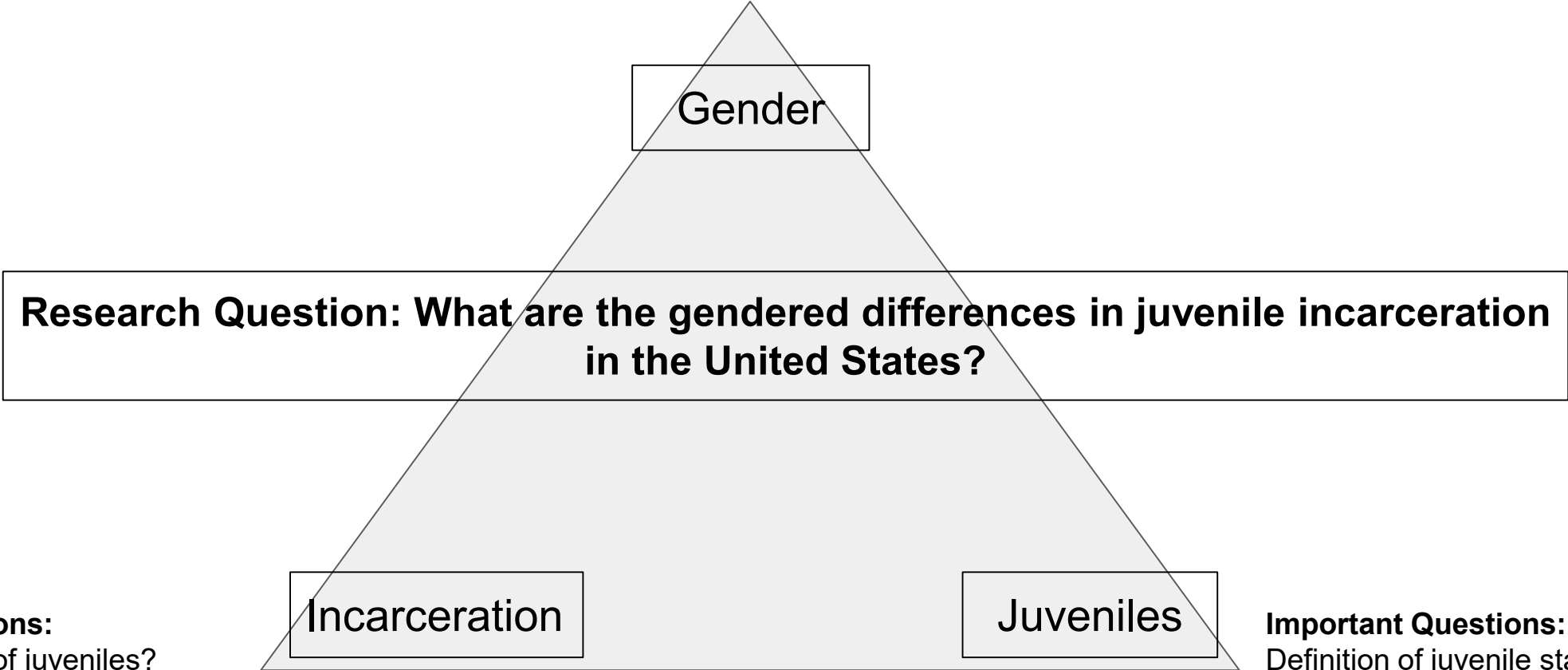
- Conclusion

- Bibliography

Scaffolded Assignments: Research

Question Worksheet

Step #2: Focusing

- Choose a topic that interests you and will sustain your interest
- Keep the topic manageable--narrow and focused enough to be interesting, but broad enough to find enough information for the assignment
- Narrow your topic by geographic region, culture, time frame, event or aspect, discipline or subject, person or group
- **Look for "a point you can argue for or against, an idea you can compare or contrast, a cause and effect relationship you can explain, a main point that can be divided into sub-points, or a question you can answer"**
- Think like a journalist to probe your topic more closely with the following questions: who?, what?, when?, where?, how?, and why?
- Be aware that local information may be more difficult to find—you will have to use local sources (academic or public libraries, historical societies, etc.)
- Be flexible--the topic might need to be modified (narrowed or broadened) depending on the information available

Important Questions:
How will you categorize gender?
What datasets capture gender?
What does the literature say about gender differences in criminal justice?

Gender

Research Question: What are the gendered differences in juvenile incarceration in the United States?

Incarceration

Juveniles

Important Questions:
Incarceration rate of juveniles?
When? Now? Years under study?
Major categories of offenses leading to juvenile incarceration?
Long-term effects of juvenile incarceration?
Recidivism?

Important Questions:
Definition of juvenile status in the law?
Literature on juvenile justice?
Dominant models of juvenile justice?
Rate of juvenile delinquency between females and males?

Common Feedback

This is a good start, but you'll need to edit it a bit so that it is a "how/why" question rather than something that can be answered with a yes/no. What about something like "what are the major factors that impact racial disparities in arrest rates?" That would allow you to talk about the role of discrimination and other factors that researchers have found to matter. Let me know if you have questions as you move forward.
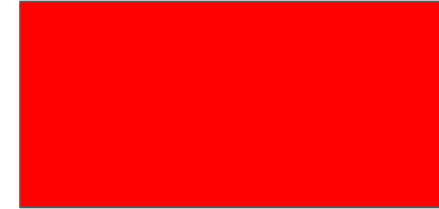
Great question! You might find as you get into the research that you have to narrow down to a specific type of policy (policing, sentencing, etc) because this may end up being too broad for one paper, but you can always start here and see what type of research you find and tweak it a little if needed. Let me know if you have any questions as you move forward.

This is a great question! I think you'll find lots of research out there on this topic and won't have any issues with designing as study around it. If you have questions as you start doing the research let me know.

Scaffolded Assignments: Research Proposal

The purpose for writing a proposal in this course is twofold. First, it gives us an opportunity to respond to and help refine your research idea while it is still in its early stages. Secondly, knowing how to present your ideas clearly and concisely is a marketable skill in almost all professions and occupations. The suggestions listed below are neither extensive nor exhaustive; your proposal is

What is your research question?

What do you wish to accomplish through the research project that you are proposing? You should have a clearly stated research question around which your final paper will be organized.

Has this issue been addressed in the past? If so, how?

What have others said about this topic? What kind of research has been done previously?

Write!

The best way to get started is just to begin writing. You can go back and refine and edit later but try to get some words on a page to start the development of your paper.

Common Feedback

- Major concerns:
  - What is hypothesis?
  - Synthesis of sources
  - Citations

This is a good start. Your writing is mostly clear but could benefit from a close proofread as you work on the rest of the paper. I'm still not sure what you are "predicting". You need to have a question that you can develop a hypothesis from to test. I have a good idea of what you will be summarizing in your lit review, but I don't know how you will design a study around it. I embedded a few comments above, but also want to make a few here:

As you work on your annotated bibliography make sure to focus on synthesizing the literature together to build to your overall argument. As you get more sources for your lit review, think about how you can organize it around "themes" rather than sources. Are there several different themes in past research that you can talk about in each paragraph (and then include information from multiple articles as appropriate)? Also make sure to focus on peer-reviewed sources. It is okay to include the other sources, but you still need to meet the requirement of 10 peer-reviewed sources. As you move forward you want to edit so that the bulk of your evidence is from peer-reviewed journal articles. Only one of the sources you list here are peer-reviewed.

You'll need to work on citations also. I have a lot of resources in D2L to help with appropriate APA citations. Check those and compare to what you have done and if you are confused reach out and ask and I'll try to help. It is very important that you cite information when you use it — there are many places where you are making a claim that appears to come from somewhere but there is no source. This is academic dishonesty and will be penalized in the final paper.

Scaffolded Assignments: Annotated Bibliography

Introduction

A ***bibliography*** is an alphabetically arranged list of titles, authors' names, and publication dates for a set of books, articles, and other sources. An ***annotated bibliography*** furnishes critical and explanatory notes in addition to the bibliographical listings; in other words, an annotated bibliography is simply a bibliography that contains a commentary and summary of each reference used. You will use this information to help you decide which sources you will use in later essays. Some of this writing may be used in your actual final paper, but you should also include information about how it might be useful to your overall argument.

Positioning the text

Include the full citation correctly formatted. Ensure this article is from a peer-reviewed journal.

Summarizing the text

What are the main ideas? What is the author's point? What conclusions does the author come to? Use this space to briefly summarize the article in the same way you would if you were using it in your paper. This should be your own paraphrasing or summarizing, not copied and pasted directly from the abstract or the article.

Evaluating the text as a source

What did you learn from the article? Did the article alter your viewpoint? Do you agree or disagree with the author's claims? How will it be useful in your project?

Common Feedback

This is a good start but will need some work. For many of these sources I can't tell if they are peer-reviewed or not. Based on your descriptions it sounds like many of them are and you are just missing information in the citations. If they are not, you'll need to add quite a few journal articles to meet the requirements for the paper.
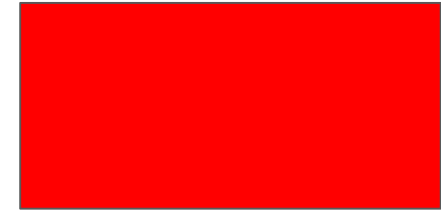
This is a good start but will need some work. You do a nice job of starting to summarize each source but they lack detail. Two or three sentences isn't sufficient to summarize an entire article. As you move forward and use these to create/continue your literature review, think about where there are similarities and differences across your sources to help you organize the lit review based upon major "themes" in past research. In order to do this you will also need to go back to each article and add more information about exactly what they were testing, how they did it, and what they found. You can then take some of the writing you have done here for individual sources and plug it in where it makes sense.

Great job with the annotations! You do a really nice job of summarizing each source. As you move forward and use these to create/continue your literature review, think about where there are similarities and differences across your sources to help you organize the lit review based upon major "themes" in past research. You can then take some of the writing you have done here for individual sources and plug it in where it makes sense.

Just let me know if you have questions as you move on to the next part of the paper!

Scaffolded Assignments: Preliminary Evidence

For this assignment, you must create one chart, graph, or table to display results from your data analysis. This is not data that you collect on your own unless previously approved by the instructor.

You are responsible for finding raw data in SPSS or Excel form somewhere to use in this assignment (resources are listed elsewhere in our D2L course). This data should be somehow relevant to your research question, but not necessarily answer it completely.

For example, if I my research topic was "what are the major differences that males commit more crime than females?", I might choose to provide a chart or graph that shows gender differences in crime rates. That doesn't answer the question of why, but it does provide some evidence to show that it is a valid topic to study. You could get data from the UCR that includes how many crimes are committed by males and females.
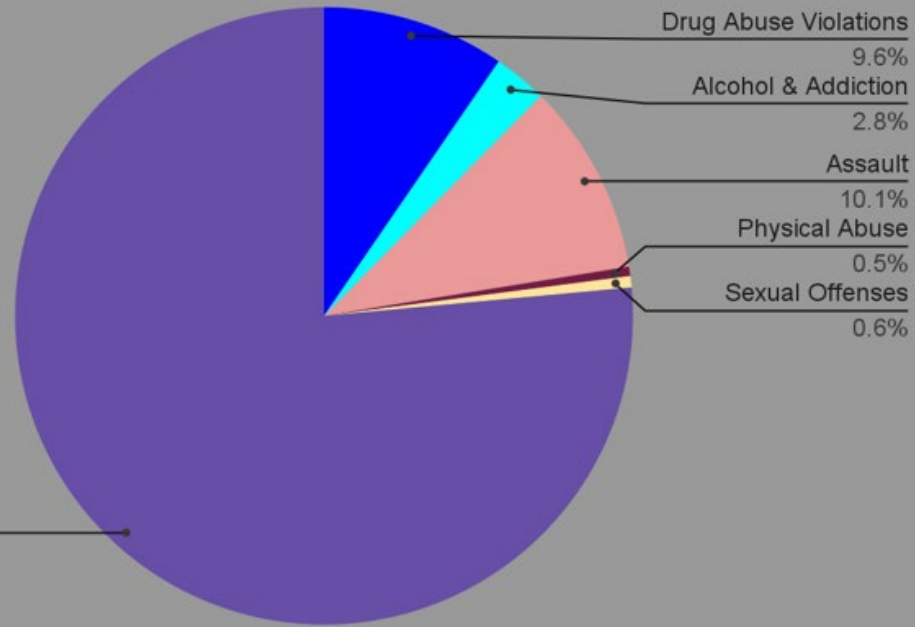
Examples:

Preliminary Evidence
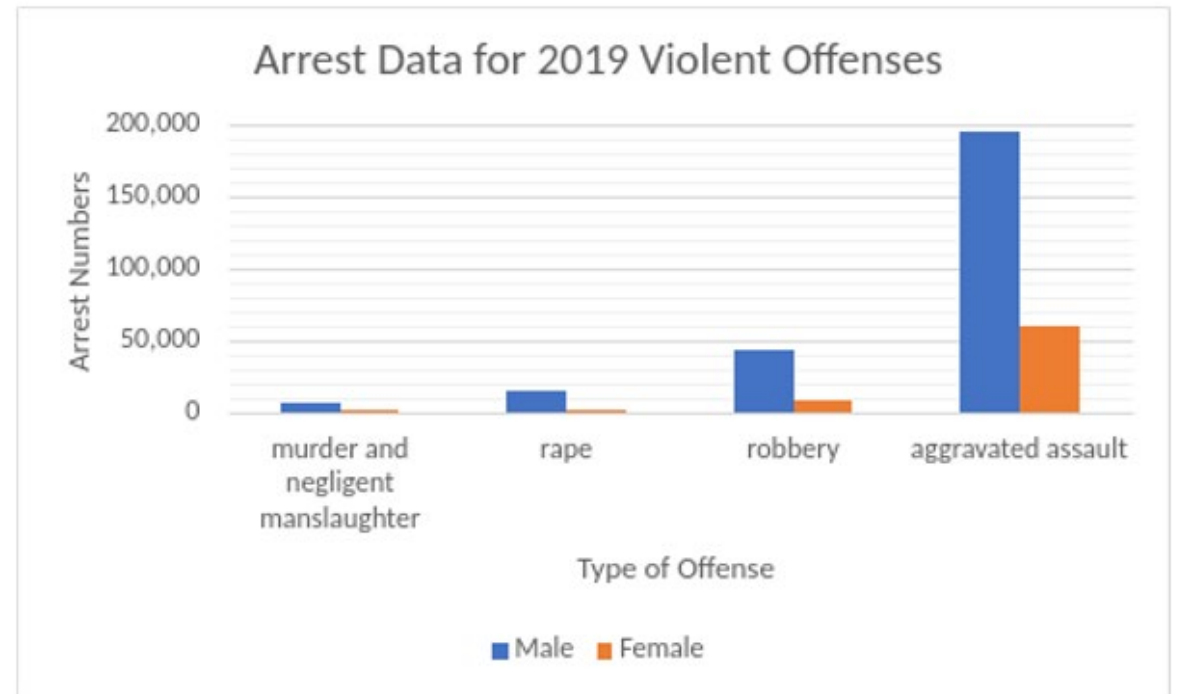
Strategies for Feedback & Reflection

- Written feedback that can be used in multiple semesters

- Crowdsourcing feedback

- Peer feedback

Strategies for Feedback & Reflection

- Utilize a worksheet to maximize time spent discussing feedback

Name:

Title of Essay:

Which Essay Assignment? (choose one): Essay One   Essay Two   Essay Three

I. Global Feedback
    A. In the space below, cut and paste the global feedback you received for this essay:

    B. In the space below, please describe your response to the global feedback you received. Do you understand the comments from your reader? What questions do you have? Do you agree with the overall assessment of your essay? Why or why not?

II. Marginal Feedback
    In the spaces below, cut and paste three of the most important marginal comments you received on your essay. After each marginal comment, describe your response to each comment (as you did for the global comments above) AND describe how you will address these concerns.

A. Marginal comment 1 (cut and paste here):

Response to comment 1:

Strategies for Feedback & Reflection

- Meetings - individual or group

Research Q	Check in 1	Notes	Need email follow-up?	Email sent	Check in 2	Notes	Need email follow-up?	Email sent
What makes the sexual orientation of an individual become one the highest crime ratesdue to their living status and/ background they came from? Why does the LGBTQ community receive the amount of unjust love from people who do not share the samerole?	9/17/2020	Has done research projects before. Didn't know there was a full final paper assignment. We talked about changing her question so that it reflects racial/ethnic disparities as well.	yes - AM	TRUE	10/22/20	had lots of questions but seems to know what is going on. she seemed nervous and might need more help	yes - AM	☑
What factors/characteristics influence the likelihood of being sentenced to the death penalty?	9/15/2020	forgot to ask about past research experience. Seems on track with topic and what to do next. Mentioned procrastination so might want to give an extra push toward the end.	no		10/20/20	was a little confused about paper structure but seems fine now. has already looked for articles.	yes - AM	☑
	no appt		no		no appt			

Stop and Reflect about Feedback

Think about strategies for feedback and reflection in your own courses:

- How can you give feedback to be used for reflective purposes to individual students most effectively and efficiently?

- If you use other project designs (group/team work, less choice on research projects, etc.), what type of feedback strategy would be best?

Critical Reflection

- What is it?

  - More than simple narrative account or description of an experience

  - Requires analysis, critique, and discussion of the impacts of learning

- Examples

  - DEAL Model (Ash & Clayton 2009)

  - Personal Application Assignment (Kolb & Kolb, 2017)

- http://www.nwlink.com/~donclark/hrd/development/reflection.html
- https://www.facultyfocus.com/articles/teaching-and-learning/critical-reflection-adds-depth-and-breadth-to-student-learning/

Critical Reflection & Assessment

Formative

- Happens throughout the experience
- Focused on feedback
  - Feedback, reflection of that feedback, and future steps can take many forms
- Often low stakes

Summative

- Occurs at the end of experience
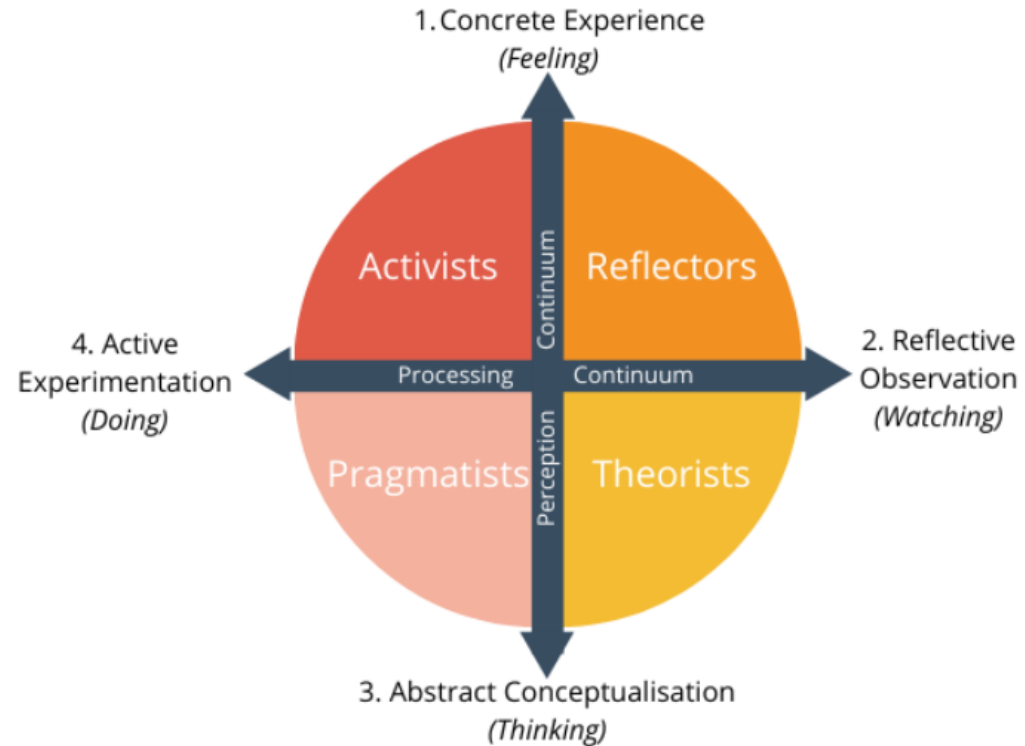- Can be focused on evaluation
- May be higher stakes

Examples of rubrics for summative reflection:

- What? So What? Now What Rubric?
- DEAL Reflection Rubric

Reflection on Learning Styles

Reflection on Learning Styles

Often times when things don't go the way we originally planned, we don't stop to pause and consider what happened, how it happened, and how me might be able to change things in the future. In this activity, consider the reflective cycle shown in the diagram below:

Gibbs Reflective Cycle

Description
What happened?

Feelings
What were you thinking and feeling?

Evaluation
What was good and bad about the experience?

Analysis
What else can you make of the situation

Conclusion
What else could you have done?

Action Plan
If it rose again what would you do?

- Image source: https://lilypeters.wordpress.com/action-learning/96-2/
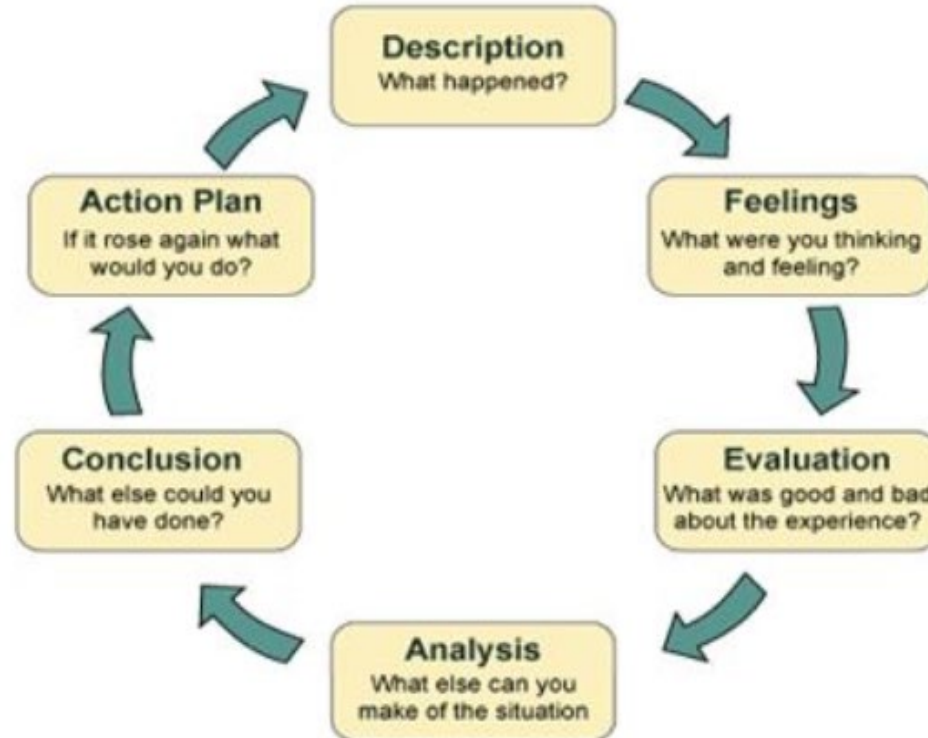
Bringing together Learning Styles and Research Methods Activities

Directions: During data collection, please take some notes on the following:

1) Briefly describe the experience – Where did it take place? What happened?

2) Did you encounter any problems? What types? How did you respond?

3) Do you have any apprehensions based on learning about conducting research and/or survey techniques?

4) Was the information you learned in class helpful during data collection? How so?

5) Will you do anything differently if you collect data in the future? What? Why?

Part 2:

Reference the pre-course self-inventory and reflection you completed the first week of class. How did your learning style impact your experience in the data collection part of this project? In what ways did the strengths and weaknesses you identified earlier in the semester influence the way you dealt with challenges? Be specific and discuss examples of these influences. In what ways did your learning style influence your interpretation and understanding of the course material related to data collection?

Final Reflection

- What were your expectations coming into this course? How did the reality differ (or not)?

- What were your expectations for the research paper in particular? Did any part(s)of the class help you to feel prepared to complete the paper? If so, which part(s)?

- What strategies that you can use in the future did the reflection on learning styles and problem-solving help you identify?

- When you complete research papers/projects in the future, what can you do differently that will help you be successful?

- How has the process of completing these reflection discussion changed your experience in the course (if at all)?

Two Project Plans, One Semester

- Two sections of CRJU 3301: Research Methods in Criminal Justice

  - CURE included in both courses

  - One had stronger reflection component (learning styles reflection, more discussion on this during mandatory individual Zoom meetings)

  - Otherwise, all course and CURE components were the same

- Reflection course (N=18)

- Typical CURE course (N=25)

Preliminary Course Assessment Results -

End of Course Survey

Reflection (n=5)

- How much did discussion boards help your learning?
  - 100% reported "great help"

- Course instructional design "helped me see my strengths and weaknesses."

Typical Class (n=11)

- How much did discussion boards help your learning?
  - 33.3% "no help or a little help"
  - 16.7% "moderate help"
  - 41.7% "great help"

Conclusion

Keep student success at the forefront.

- Ensure you have (some) essential elements of HIPs represented in your CURE/UGR projects.

- Reflection can take many forms – sometimes it is present even when you don't realize it.

- Design reflective assignments, feedback schemes, and assessments with efficiency in mind.

How to Reach Us

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https://forms.gle/Uz3M8REV9Y7zVCKX6

Essential HIP Elements

Brainstorm some ideas about how you could effectively meet the expectations for a "high impact" project in the context of undergraduate research in research methods:

- Students are provided timely and frequent feedback

- Students reflect on their learning

- Students apply learning in real-world contexts

- Students experience diversity or difference

- Students have meaningful interactions with peers and faculty

- Students devote considerable time and effort

- Students are expected to perform at high levels

- Students publicly demonstrate their competence

IUPUI 2021 session on research methods, undergraduate research, and reflection

Links to put in chat:

SLIDE 4: Mentimeter poll
www.menti.com
Use code 8163 1472

SLIDE 6: Stop and brainstorm
Link to handout with HIP elements for brainstorming:
https://drive.google.com/drive/folders/1lmEiB6gKqvhX-5xKxrfJoMV0GOVxIpSP?usp=sharing

SLIDE 11: Undergraduate research in research methods
Kortz & van der Hoeven Kraft (2016):
https://www.tandfonline.com/doi/abs/10.5408/15-11.1?casa_token=5dmSGOOdcisAAAAA%3AMxv_dbWLtJl0li0GxLSksP53s7t0mkUoc6Qk3ClTJvrr7wrfGOu0x3M-B8SkdEYBPj-T2jgUjJhNNQ&journalCode=ujge20

SLIDE 26: Critical Reflection
http://www.nwlink.com/~donclark/hrd/development/reflection.html

https://www.facultyfocus.com/articles/teaching-and-learning/critical-reflection-adds-depth-and-breadth-to-student-learning/

Ash, S. L., & Clayton, P. H. (2009). Generating, deepening, and documenting learning: The power of critical reflection in applied learning. *Journal of Applied Learning in Higher Education*, 1(1), 25-48. https://scholarworks.iupui.edu/handle/1805/4579

Personal Application Assignment (Kolb & Kolb, 2017):
https://learningfromexperience.com/downloads/research-library/evaluating-experiential-learning-the-personal-application-assignment.pdf

SLIDE 27: Critical Reflection and Assessment

What? So What? Now What Rubric?: https://usm.maine.edu/sites/default/files/service-learning-volunteering/Engaged%20Cornell%20Reflection%20Rubric.pdf

DEAL Reflection Rubric:
https://scholarworks.iupui.edu/bitstream/handle/1805/22411/DEAL%20MODEL%20Critical%20Thinking%20Rubric.pdf?sequence=1&isAllowed=y

SLIDE 35: How to reach us

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feedback link: https://forms.gle/Uz3M8REV9Y7zVCKX6

Link to full presentation slides:
https://drive.google.com/drive/folders/1lmEiB6gKqvhX-5xKxrfJoMV0GOVxIpSP?usp=sharing