PSY 496 Lesson Plans

General lesson breakdown: Part 1: 1:40-2:50, 10 min break, Part 2: 3:00-4:10

Session 1 (1/24)

Part 1 - Start with Introduction, basic rules (attendance "tents", no laptops unless needed), syllabus overview (and malleability) (~10 min.?); then: icebreaker – students pair up to learn about their neighbor, then tell the class their neighbor's name, research project topic, and favorite movie or book or band (all of which lend themselves to follow-up questions). If this goes fast, we could add a round of "would you rather" scenarios (~30 min.?); followed by "*why are you doing an honors thesis and what do you expect to get out of this class?*" – write on an index card (plus your name) (~ 5 min.). (I'll collect them, will dig them back out for last session; maybe have a couple of students state theirs out loud?). This should bring up the topic of research career/graduate school, which will serve as the bridge to…

Part 2 - "How to get into….". Then have them fill out index cards on "what did you find particularly useful?" and "what did you find not useful?" (5 min.). End on giving clear instructions on assignments and preview next session.

Assignments for Session 2:

1- Graded assignment 1 (10%): Read Evans (2007) chapter, plus my slides ("Crafting a research question.ppt") and write a succinct draft (max. 8 sentences!) of your research question/project (What? Why? How?), which you will submit to Sakai and present orally as an "elevator pitch" (max 90 sec. minutes – no reading!!) in the next class.

2- Graded Assignment 2 (5%): Read the Bem chapter and Kording & Mensh paper on writing an empirical research paper. Think about your own project and write down one specific challenge that you see (and why) with trying to implement their advice in writing your thesis paper. Submit this short note (3-4 sentences) to Sakai.

Session 2 (1/31)

Part 1 - We instruct students to break into group of 3s (prior to giving the pitch) and for each group to pay particular attention to their fellow group members' pitch and the feedback they receive from us. Students give their elevator pitch (NOT reading off!), which will be stop-watched to stay within 90 sec.! (Should take about 50-60min. total, including feedback). Then, once all pitches are done, the groups-of-3 give each other suggestions on how to improve their pitches and ***reduce them down further – to 30 sec.!*** (I.e., we ask students to tell each other what they absolute *core message* of their pitch should be. (10-15 min.). Break…

Part 2: Students briefly present their ultra boiled-down pitch (30 sec.!). (~15 min.?)

Thereafter: "lecture" on Research Article writing with emphasis on Introduction (~30-40 min.). End on giving clear instructions on assignments and preview next session.

Assignments for Session 3:

Comment [chb1]: snow day was 01/17 so it's all been shifted

Comment [chb2]: maybe we can do this as they come into class, hand them little slips of paper that say their group number and tell them to find their group, so that when class starts, they'll already be arranged (i.e., no time wasted)

Comment [TE(3]: Sounds good to me.

Comment [chb4]: do they need to present their ultra-boiled down pitch, or is it okay to just discuss the most important thing they learned about boiling down their pitch, per class comments?

Alternately, that seems like something we could just get a feel for in the class - whether they would like to present the pitch again or just discuss the comments/lesson learned

Comment [TE(5]: Yes, good point, time-wise it might be more realistic to not have them do it again, but we can kind of go with the mood of the class on that

1- Graded assignment 3 (10%): Consult my lecture slides and read the Kendall et al. chapter, and employ two of the discussed strategies to write *two versions* of an opening paragraph for your thesis introduction (2-4 sentences each). Additionally, provide a commentary/justification as to which one you prefer, and why (2-3 sentences).

2- Graded assignment 4 (5%): read the Sternberg book chapter on crafting a title and abstract, and come up with 3 potential titles for your paper. Submit these titles to Sakai. You will present your opening gambit and title in the next class.

Session 3 (02/07)

Part 1 – Opening gambit discussion: Students *pair up* to discuss each student's 2 "opening gambit" suggestions, settling on the one they like best (10-15 min.). Then, each student presents their "winning" gambit and receives some feedback. (20-30 min.). Next, Students break up into *groups of 3* and discuss each student's 3 title suggestions, settling on the one they like best (15 min.). Then, each student presents their "winning" title and receives some feedback. (15-20 min.?). (Could also do title presentation after the break, if necessary!!

Part 2 – Lecture on Methods, Results, and Discussion section (40-60 min.). End on giving clear instructions on assignments and preview next session.

Assignments for Session 4 (and beyond):

1- Read the following articles on peer review:

- Walsh et al. 2000.pdf
- http://www.psychologicalscience.org/observer/twelve-tips-for-reviewers#.WGxYZbYrJ-U
- https://www.washingtonpost.com/news/morning-mix/wp/2015/03/27/fabricated-peer-reviews-prompt-scientific-journal-to-retract-43-papers-systematic-scheme-may-affect-other-journals/?postshare=3741427469958229&utm_term=.c4caa4cbc907
- http://www.sciencemag.org/news/2015/08/pubpeer-s-secret-out-founder-controversial-website-reveals-himself

2- Graded assignment 5 (5%): For the next class, submit a short document to Sakai in which you note what you consider the two most important advantages and disadvantages of blind as compared to open peer review.

3- Graded assignment 6 (10%): Re-read the Kendall book chapter and consult my lecture slides to write a *full introduction draft* for your thesis paper following the structure we discussed in class (5-8 pages, double-spaced). For each section or paragraph, write a comment (1-2 sentences) that details the purpose or core message of that paragraph. Submission deadline on Sakai is **02/21**.

Session 4 (02/14)

Part 1 – Peer review discussion: form groups of 4-5 students and discuss advantages and disadvantages of blind vs. open peer review. As a group, do two things: 1- decide on whether you'd prefer your paper

to undergo blind or open review, 2- decide on whether if you were to review another student's paper, you'd prefer to remain anonymous or not, and 3- generate at least 3 suggestions for how we could potentially improve the peer review process (20 min.). Then, each group lets us know how they voted and what their suggestions for improved review are. Use whiteboard to gather inputs. Group discussion (~30 min). Break

Part 2 – Publishing a research article – we discuss the different stages of the publication process.

End on giving clear instructions on assignments and preview next session.

Assignments for Session 5

1- Read the following articles on the "replication crisis" and on open science projects (the first two are obligatory):

- Simmons et al. 2011.pdf
- Spellman 2015.pdf
- https://digest.bps.org.uk/2016/09/16/ten-famous-psychology-findings-that-its-been-difficult-to-replicate/
- Open Science Collaboration 2015.pdf
- Gilbert et al. 2016.pdf

2- Graded assignment 7 (5%): For the next class, submit a short document to Sakai in which you note all of the ways in which your own project deviates from the "open science"/replication-promoting approach to research, as described in Simmons et al. Table 2 (but you can go beyond those points and refer to others you saw in those reading materials).

Session 5 (02/21)

Part 1 – Open science/replication discussion. Group students into 3s and have them compare notes on how their own projects violate many tenets of open science. Then each group should generate as many barriers to conducting open science as they can come up with (15 min.?) – put those on the whiteboard. Then have them group up again and come up with *at least 2 proposals* for promoting more replicable findings in the literature. Put them on the whiteboard and discuss! (20 min?). Finish off part 1 with a brief web demo of what open code and data looks like (Christina).

Part 2 – Fellowship applications: Introduce the idea of writing proposals, with specific reference primarily to NSF graduate research fellowship format. Discuss the "merit review criteria" and have students pair up to read a couple of example research statements and extract which information they would consider most relevant for giving the "intellectual merit" and "broader impact" scores.

Finally, in transition to next session, hand out and discuss a couple of "ethical dilemma" vignettes. This is stimulate their imagination for graded assignment 5.

End on giving clear instructions on assignments and preview next session.

Assignments for session 6 (and beyond)

Comment [chb6]: You can actually have each group take up a small section of the whiteboard and write the three points for the discussion already. that way, you know their group discussion is occurring in real time, and then you have an immediate tally for when you open back up to discussion. So, each group has a spokesperson. You point to some feedback already written on the board, person explains their reasoning, and you can start to point out the trends among all the groups.

I'm not sure if there will be enough whiteboard in that class, but that's about six groups? Probably should be, though.

Comment [TE(7]: Excellent idea, let's do that!

Comment [chb8]: possibly do this in the same format as the previous lecture
point 1 - generate as many barriers to conducting open science as they can come up with
2- proposals for promoting more replicable science,
and since they've already written these on the whiteboard, #2 will look like it's in conversation with #1

Comment [TE(9]: Yep, agreed!

Comment [chb10]: The good thing about the NSF is that it has a really long personal statement. So even if they're not actually into research or research statements, you can point out how this personal statement is really relevant to all careers - for higher education, you would write a variant of this; for jobs, 'tell me about yourself' is like a reduced version of this.

Comment [TE(11]: So you think we should also have the student read the personal statements?

Comment [CB12]: Yes, they should read both and give them a timer for reading them, because that's how the reviewers fxn. It's fine if you want them to focus more on the research aspect for their own work, but the personal statement is actually supposed to be more important than the research statement for the NSF, *and* it is more applicable to any career path folks choose

Comment [TE(13]: Well, I guess we can also have them write brief personal statements, in theory! (Maybe instead of the intellectual merit ones, which is kind of what they already do in their thesis. The broader impacts and personal statements seem more novel in that regard.

1- Graded assignment 8 (5%): Describe an "ethical hot seat" dilemma in conducting research that you either have encountered, or could imagine encountering in your work (in 5 sentences or so). In the next class, some student will have to consider how they would handle your dilemma!

2- Graded assignment 9 (10%): Read the Reis book chapter on writing a Methods section and consult my lecture slides to write a *full Methods draft* for your thesis paper. Submission deadline on Sakai is **02/28.**

Session 6 (02/28)

Part 1 – Ethical dilemma discussion: We pull student names and dilemmas out of hat, and see what kind of solutions the students come up with (~60 min). Break

Part 2 – Fellowship writing exercise: have students pair up, and everyone gets 20 min to write a brief "intellectual merits" statement (max. 5 sentences) for his study; the 2 students then give each other feedback on the statements (10 min); they then revise the statements (5-10 min), and the revised statements get read out in class for additional feedback (40 min).

Assignments for session 7

1- Graded assignment 10 (5%): Write a brief (max 6 sentences) "broader impacts" statement for your research project, including a commentary on why you focus on the particular angle you choose to focus on.

2- Graded assignment 11 (10%): Read the Salovey chapter on crafting a Results section and consult my lecture slides to write a *full Results draft* for your thesis paper. Submission deadline on Sakai is **03/07.**

3- Think about what date(s) would suit you for your practice presentation. We will run a lottery for picking slots in the next class.

Session 7 (03/07)

Part 1 – Presentation on poster design (30 min), including critiquing example posters from previous years (15 min).

Part 2 - Scheduling of, and tips on, your practice presentation: Lecture slides, plus we run a little lottery for picking practice presentation dates, and then go over some basic rules and tips for the presentation (~60 min total)

Assignments for 03/21 (and beyond)

Graded Assignment 12 (10%): Read the Calfee chapter on writing a Discussion section and consult my lecture slides to write a *full Discussion draft* for your thesis paper. Submission deadline on Sakai is **03/21.**

Graded Assignment 13 (10%): Prepare and present oral slide presentation of your thesis project

Comment [chb14]: By hand, I take it? So this is like outlining the broad strokes of what they would write?

(I imagine that this section somewhat also gets at what they'd need to know w/ their thesis defense. Might be helpful to say that, even if they don't plan on turning in application, this is like what they could expect of their defense.

Or, alternately, like a "Public Significance" statement in a journal article.)

Comment [TE(15]: Yes, shouldn't be hard to bring across the importance of this. I don't mind them using their laptops for writing, do you think that might be problematic?

Comment [CB16]: Feedback will be harder to pass on laptops, also possible that the students take some of the 20 mins to slack off and/or get distracted, plus breaks your own rule about not using laptops

Christina Notes:

I added "graded assignment 14" as their poster, since you have this session and presenting at that fair is a part of what they do for this class and their thesis project.

For the presentations:

So, presentation bingo gives them something specific to look for, and I will see if I can create some sample bingo cards. But this might not go as well with the idea of receiving extra credit for giving the best feedback. The bingo cards should have some freeform space (either on the bingo sheet itself, like blank bingo spots they can write in, with pos or neg fb, or at the bottom), but this might not have too much space for actually judging how good the feedback is. My idea with the extra points is that each session, people are assigned a # (so they're anonymous, but we can track who the feedback giver is), we have a little list that links the number with the person, and then on their feedback forms, they write their # instead of their name. Then, whoever presents that day, before the next class, they would tell us which of the numbered feedback was the best or most useful. That person gets the extra points/credit. This gives them an opportunity to get extra credit/points on each of the five presentation days. Possible that the best feedback stuff can be combined with bingo - depends on what the bingo cards look like.

For the last class, your lesson plan:

" **Topic**: Reflection on what we've learned in this class"

For assignment #2, you have "what are challenges" that they're anticipating facing with writing a thesis. You can actually physically hand out copies of that assignment, since they turn that into Sakai, have them read over what they wrote and then discuss in class how they dealt with the challenge they identified. This will depend, of course, on how seriously they took that assignment, but at least a couple of people will identify some challenges worthy of discussion.

Even if you don't like the section I wrote in the syllabus that says "ways in which you learn in this class," you can also have the students read back over that section and freeform write (~5 min?) whether they feel that those descriptions are accurate of what they learned this semester. This could actually go first, because it ties into their second assignment of the challenges. And then after these two, you could bring back out the notecards that they wrote on the first day - did you get what you expected out of this class? It might be awkward to discuss that in class, but they could do freeform writing on that. That should be about half of class time, I'd assume? And then there's no problem with letting them out early... or you can have a discussion on how their thesis defense went, unless some of them are presenting that day, on 04/25. Maybe even advice they would give to other undergrads pursuing a thesis?

Comment [TE(17]: Sounds good!

Comment [TE(18]: Though the two aren't mutually exclusive

Comment [TE(19]: One thing I like about this is that it forces everyone to write stuff, i.e., to generate feedback. In previous classes when I just ask students to provide feedback, it tends to be the same 4 or 5 and the others might not even be thinking about the presentation. By having them fill out Bingo cards (in whatever shape), we'll force them to attend and think about the presentation at least a little bit.

Comment [CB20]: Hopefully
The only other way I know of "forcing" them to give feedback is to count it as part of their grade.

Is there also a prize for getting Bingo or the most # of Bingos?

Comment [TE(21]: A prize sounds like a good idea!

Comment [TE(22]: One possibility here (quite realistic) is that several student will point out the same key issues, so there might not be a single "winner". Another potential issue is that we will of course also give verbal feedback right after the presentation and we don't want a situation where student scribble down a point that you or I are making.

Comment [CB23]: Right, but the key isn't to just point out all the issues. It's constructive critique – I'd assume, if you're having students decide who gave the best feedback.

Perhaps we should collect the feedback forms before we give ours? I don't know a good way around that. But the other issue, too, is that if they wait to say who gave the best feedback is that they could choose their friends. Maybe this idea isn't as great…

Comment [TE(24]: That's a great idea. In addition, in session 1 I'll collect an index card from each student on why they're doing GwD and what they expect to get out of this class. We'll revisit those, too.

Comment [CB25]: Yep second paragraph

Comment [TE(26]: This all sounds great. Plus there'll be donuts!