

Strategies and Tips for Incorporating Peer Interactions into Online Courses

Jennifer M. Brielmaier, Yi-Ching Lee, Justin Ramsdell, & Larisa
Olesova

George Mason University

Agenda

- Initial activity - Breakout groups #1 - Share Your Previous Experience (5 min)
- Review pedagogical underpinnings of this approach - Larisa
- Peer-review grading as a tool for peer interactions - Justin
- Breakout groups #2 - Students' Perspectives (10 min)
- Peer interactions in online Biopsych courses - Jen
- Peer interactions and group projects in a human factors and applied cognition course - Yi-Ching
- Breakout groups #3 - Students' Perspectives (10 min)
- We need your help...

Interaction and the Transactional Distance Theory (Moore, 1989)

Transactional distance is the cognitive or psychological and communication space between instructors and learners, which increases the likelihood of miscommunication (Bol & Garner, 2011)

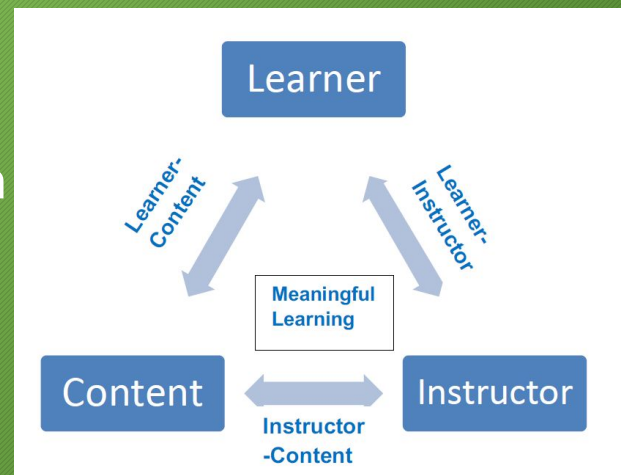
Three types of interaction:

Learner-to-learner, i.e., peer interaction

Learner-to-instructor

Learner-to-content

Quantity vs quality



Peer interactions

Interaction is an *observable event* that takes place between a learner and learner's environment

Peer interactions occurs between one learner and another, between small groups of students, or between all the students in a course. Peer interactions occurs in varying degree with different levels of success (Oyarzun et al., 2017)

Strong peer interaction is a predictor of student satisfaction and achievement (Jung, Choi, Lim, & Leem, 2002)

Types of peer interactions

Designed interactions - instructional activities specifically designed and implemented to provide opportunities for students to work together:

- cooperative and collaborative learning
- structured, i.e., group projects

Contextual interactions - provide options and alternatives for the students to interact with one another, but have no structure or explicit instructional intent

- discussions with little or no guidance

Peer interactions strategies: instructor perceptions

1. Student introduce themselves using an icebreaker discussion (M=4.49; SD=0.74)
2. Students work collaboratively using online communication tools to complete case studies, projects, reports, etc (M=4.44; SD=0.72)
3. Students peer-review classmates' work (M=4.00; SD=0.88)
4. *Students moderate discussions (M=3.81; SD=0.96)*
5. Students have choices in the selection of readings (articles, and books) that drive discussion group formation (M=3.76; SD=0.92)

(Bolliger & Martin, 2018)

Peer interactions: graduate student perceptions

1. Student introduce themselves using an icebreaker discussion (M=4.08; SD=0.93)
2. Student work collaboratively using online communication tools to complete case studies, projects, reports, etc (M=3.94; SD=1.07)
3. *Students interact with peers through student presentations (asynchronously or synchronously) (M=3.89; SD=0.93)*
4. Students have choices in the selection of readings (articles, books) that drive discussion group formation (M=3.78; SD=0.95)
5. Student peer-review classmates' work (M=3.66; SD=1.09)

(Martin & Bolliger,
2018)

Least valuable strategies: instructor perceptions

Most: Community building, discussion forums

Least: Discussion forums and student lounges; group work

Group work in an online environment is difficult

Most & least valuable strategies: graduate student perceptions

Most: Interaction with peers, community

Least: Group projects and peer review work

We are all adults with busy lives - we take online classes so we don't have to cater to another person's schedule

Four elements to design peer interactions

1. **Positive interdependence** - learner's perceptions that working together is *individually and collectively* beneficial and success depends on participation of every group member
2. **Individual accountability** - the learner's belief that each learner is held accountable for his or her performance
3. **Promotive interactions** - the learner's belief that ongoing interactions are required for success
4. **Elaborate explanations** - effective collaboration with a focus on encouraging understanding

Lou et al (2001)

PSYC 381 and 440

Type of interaction: between one learner and another

Designed interaction: cooperative learning

Strategies applied: student peer-review classmates' work

**instructor perception rank 3 and student perception rank 5

Positive interdependence - Individual accountability- Promotive interactions - Elaborate explanations

Peer Interactions in Two Forensic Psychology Courses

Justin Ramsdell

Assistant Professor - Forensic Psychology

Course Descriptions

381 - Mental Illness and Criminal Justice

A course exploring different aspects of the criminal justice system during which an individual with severe mental illness can be diverted for treatment.

440 - Forensic Psychology: Science and Pseudoscience

A course exploring logical thought, science, and aspects of psychology and law enforcement practices that have questionable (or divided) empirical support (think hypnosis, repressed memories, or the polygraph).

Similarities Between Courses

Both courses involve a large (mock) psychological report based off a real case. The reports are completed in multiple parts (6 papers in 381 and 5 papers in 440) making up one large psychological evaluation.

In 381, this involves a full psychological evaluation including competency to stand trial and the assessment of criminal responsibility. The student is the “psychologist” and is given police reports, videos, audio clips, testing data, etc. in order to complete a report.

In 440 this involves a full psychological evaluation attempting to determine whether a murder suspects “confession” was actually a false confession. It also involves police reports, testing data, polygraph results, etc.

Large Enrollment Courses

Both of these courses are conducted face to face and online.

They always have a minimum of 50 students per course, regardless of format, but can have up to 150.

But writing is important... there is no substitute for reviewing data, forming an opinion, and learning how to communicate that opinion to make an argument in a logical way that others will understand.

But I can grade all those papers.

Learner to Learner Interaction

Unwilling to give up the writing aspects of the course, Larisa and I settled on peer-review... a designed interaction between students that does not involve group work.

This has several benefits...

Benefits of Peer-Review

Students continue to write... even in large courses.

Students are exposed to the material several times... through the lens of another person.

Once created, this process saves valuable time.

Assignment Design

The students are given instructions just like they would for any other paper.

Papers are submitted a different way, but we will discuss that later.

Paper 2: Behavioral Observations (10%)

Enabled: Statistics Tracking

Please add this section to your previous report (background information and instant offense) as outlined below. This is to be written as if you are a mental health professional in the jail in which Susan is currently incarcerated. Please write this as if you are meeting Susan in jail on "Day 16" in Arlington County Detention Center.

For this section of your report, you must watch the "Susan - Behavioral Observations Video" posted on the Blackboard site for the class. Some helpful tips:

- Use the information available in the "Writing Your Mental Status Exam" PowerPoint to create the format of your behavioral observations section.
- I can't state this clearly enough... be objective and factual. This style of writing is more boring than what you may be used to... that is fine. You must provide behavioral observations that back up your claims.
- Do not simply state that Susan appeared anxious. Instead, state that she appeared anxious and then give an example of what you were "seeing" in the interview (her actual behavior) that made you think that. For example, "the patient appeared anxious as evidenced by the fact that she was constantly shifting in her seat and repeatedly asking when the interview would be done."
- Be sure to cover every category listed in the class PowerPoint... use that as a guide. Each of these sections should be a different paragraph in your behavioral observations section. For clarification... those are:
 - Appearance
 - Behavior
 - Mood
 - Speech
 - Cognition
 - Thought Processes
 - Insight and Judgment
 - Suicidality/Homicidality
- Use the PowerPoint presentations related to Susan and her diagnosis of schizophrenia to help you understand what is, and what is not, relevant.
- One caveat, you do not need to comment on everything listed in the PowerPoint. If there was nothing remarkable about Susan's appearance, then state what she looked like (overall appearance) and leave it at that. The PowerPoint is a guide so you don't forget anything... but don't go looking for things that are not there.

Check evaluation criteria for grading below. This evaluation form will be used during peer evaluation to grade your paper.

- [Paper 2 Evaluation Criteria Form](#)

Submission dates: January 20, 2020 12:00:00 AM to March 02, 2020 11:59:00 PM

Evaluation dates: March 03, 2020 12:00:00 AM to March 09, 2020 11:59:00 PM

[>>View/Complete Assessment](#)

Expectations

There are two big expectations:

- 1) Complete the paper on time
- 2) Participate in peer-review

Points	2	3	4	5	Total
Submitted paper on time - (If student graded this is an automatic 5)	If student did not submit paper on time, overall grade percentage drops 5% each day the paper is late. Penalties will be deducted by the instructor.			If student graded, this category is an automatic 5 point score.	
Peer Grading - (If student graded this is an automatic 5, instructor will deduct points after reviewing peer grading quality)	Was not able to participate in peer grading (if student did not participate in peer grading at all, this is a "0." If student only graded one paper, instead of two, all point values are cut in half.	Participated in peer grading but appears to have paid little attention to the papers being graded	Participated in peer grading but appears to have made several questionable decisions with respect to applying the rubric	Fully participated in peer grading.	
Used the proper format	Did not use the proper format at all OR wrote any section other than "Sources of Information" in bullet point format.	Mostly used the proper format (but some things were different) but also left in highlighted text from the assignment	Used the proper format but left in some highlighted text	The proper format was used and all highlighted text was deleted	
Reason for Referral	Reason for referral not present at all (or incorrect) AND Susan's charges were not listed	Reasons for referral present but incorrect OR Susan's charges were not listed or not correct	Do not use	Reason for referral was correctly stated as "diagnostic clarification" and Susan's charges were stated and correct.	

Implementation

This took some problem solving since surprisingly, not many instructors use this tool in Blackboard. The students were completely new to this.



The screenshot shows a video player interface within a Blackboard course shell. At the top left, there is a small icon of a document with a play button. To its right, the text "Submission and Peer-Review for Papers" is displayed with a downward-pointing chevron icon. Below this, the video title "Submission and Peer-Review for Papers (10:09)" is shown. The main area of the player is a dark blue, cloudy background with a large white play button in the center.

Facilitation and Feedback

Not surprisingly, grading isn't that difficult. The difficult part is creating a detailed and useful rubric. But like most things online, the hard work comes beforehand.

Mood and Affect	Did not mention mood or affect at all	Described Susan's affect in an incomplete or unclear manner without making clear that her affect changed at times during the interview, AND failed to mention an assumption of her overall mood	Described Susan's affect in an incomplete or unclear manner without making clear that her affect changed at times during the interview, OR clearly described Susan's affect, including how and when it changed related to the topics discussed in the interview, but failed to mention an assumption of her overall mood	Clearly and completely described Susan's affect, including how and when it changed related to the topics discussed in the interview, AND made an assumption as to Susan's overall mood	
Speech	Did not mention speech at all	Mentioned 1 or 2 of the following 4 areas in a descriptive and complete way: 1) rate of speech, 2) intensity or volume, 3) clarity, 4) quantity	Mentioned 3 of the following 4 areas in a descriptive and complete way: 1) rate of speech, 2) intensity or volume, 3) clarity, 4) quantity	Mentioned all of the following 4 areas in a descriptive and complete way: 1) rate of speech, 2) intensity or volume, 3) clarity, 4) quantity	
Cognition	Did not mention cognition at all	Mentioned 1 of the following 3 areas in a descriptive and complete way: 1) attention and concentration, 2) memory (basic impressions), 3) orientation	Mentioned 2 of the following 3 areas in a descriptive and complete way: 1) attention and concentration, 2) memory (basic impressions), 3) orientation	Mentioned all 3 of the following 3 areas in a descriptive and complete way: 1) attention and concentration, 2) memory (basic impressions), 3) orientation	

Facilitation and Feedback

The vast majority of students complete the work as asked.



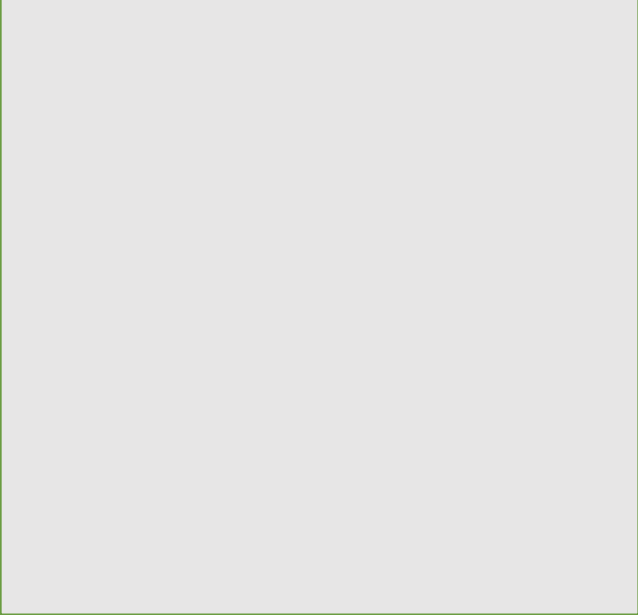












There are several problems that arise.

Some students do not complete the work on time.

COMPLETED	NAME ▲	USERNAME	QUESTION RESPONSES
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✓ Completed			1 of 1
✗ Not Started			0 of 1
✓ Completed			1 of 1



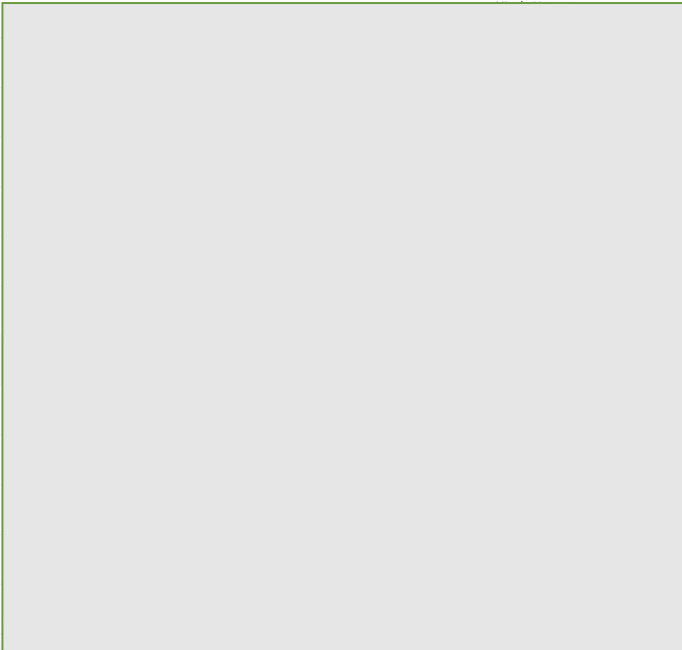













Facilitation and Feedback

Or they do not participate in peer-review

COMPLETED	EVALUATOR 	EVALUATOR USERNAME	SUBMISSIONS EVALUATED	PERCENTAGES	POINTS	AVERAGE
 Completed				100.00% 100.00%	70/70 70/70	100.00%
 Completed				100.00% 87.14285%	70/70 61/70	93.57142%
 Completed				100.00% 100.00%	70/70 70/70	100.00%
 Completed				97.14285% 91.42857%	68/70 64/70	94.28571%
 Completed				85.71428% 91.42857%	60/70 64/70	88.57142%
 Completed				100.00% 100.00%	70/70 70/70	100.00%
 Completed				100.00% 100.00%	70/70 70/70	100.00%
 Completed				98.57142% 100.00%	69/70 70/70	99.28571%
 Completed				100.00% 97.14285%	70/70 68/70	98.57142%
 Completed				91.42857% 48.57142%	64/70 34/70	69.99999%
 Completed				100.00% 97.14285%	70/70 68/70	98.57142%
 Completed				75.71428% 100.00%	53/70 70/70	87.85714%
 Completed				98.57142% 71.42857%	69/70 50/70	84.99999%
			87.14285%	68/70		

Facilitation and Feedback

Or there are major discrepancies in grading.

COMPLETED	EVALUATOR 	EVALUATOR USERNAME	SUBMISSIONS EVALUATED	PERCENTAGES	POINTS	AVERAGE	
 Completed				100.00% 100.00%	70/70 70/70	100.00%	
 Completed					100.00% 87.14285%	70/70 61/70	93.57142%
 Completed					100.00% 100.00%	70/70 70/70	100.00%
 Completed					97.14285% 91.42857%	68/70 64/70	94.28571%
 Completed					85.71428% 91.42857%	60/70 64/70	88.57142%
 Completed					100.00% 100.00%	70/70 70/70	100.00%
 Completed					100.00% 100.00%	70/70 70/70	100.00%
 Completed					98.57142% 100.00%	69/70 70/70	99.28571%
 Completed					100.00% 97.14285%	70/70 68/70	98.57142%
 Completed					91.42857% 48.57142%	64/70 34/70	69.99999%
 Completed					100.00% 97.14285%	70/70 68/70	98.57142%
 Completed					75.71428% 100.00%	53/70 70/70	87.85714%
 Completed					98.57142% 71.42857%	69/70 50/70	84.99999%
 Completed					97.14285%	68/70	

Facilitation and Feedback


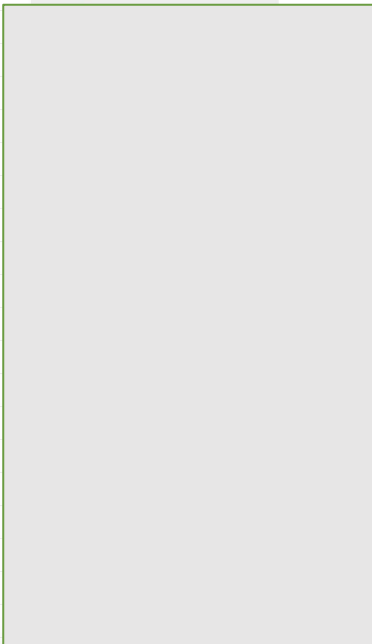
The grades are automatically sent to the Grade Center and you only need to adjust as needed.

PAPER 2: BEHAVIORAL OBSERVATIONS (10%)
98.57142%
97.142%
93.57142%
97.14285%
82.85714%
78.00%
93.57142%
94.28571%
85.70%
99.28571%

Facilitation and Feedback

But in the end... about 90-95% of the assignments are peer-graded.

Honestly, I'm surprised at how honest and true to the rubric the students are when grading. I generally have to adjust grades up, not down.

EVALUATED	NAME 	USERNAME	AVERAGE PERCENTAGE	AVERAGE SCORE	RESULTS SENT	EVALUATORS	
✔ Completed			99%	69.00/70	No	2 of 2	
✔ Completed				155%	108.50/70	No	2 of 2
✔ Completed				94%	65.50/70	No	2 of 2
✔ Completed				97%	68.00/70	No	2 of 2
✔ Completed				83%	58.00/70	No	2 of 2
✔ In Progress				71%	50.00/70	No	1 of 2
✔ Completed				94%	65.50/70	No	2 of 2
✔ Completed				94%	66.00/70	No	2 of 2
✘ Not Started				-	-	No	0 of 2
✔ Completed				99%	69.50/70	No	2 of 2
✔ Completed				96%	67.50/70	No	2 of 2
✔ In Progress				99%	69.00/70	No	1 of 2
✔ Completed				97%	68.00/70	No	2 of 2
✔ Completed				153%	107.00/70	No	2 of 2
✔ Completed				96%	67.00/70	No	2 of 2
✔ Completed				92%	64.50/70	No	2 of 2
✔ Completed				99%	69.00/70	No	2 of 2
✔ Completed				88%	61.50/70	No	2 of 2
✘ Not Started			-	-	No	0 of 2	

Facilitation and Feedback

There are growing pains... But once everyone understands the system, it allows for meaningful, anonymous, feedback.

It has valid pedagogical underpinnings

It saves time and increases student interaction with the material.

PSYC 372 and 373

Type of interaction: between one learner and another and between all the students in a course.

Designed interaction: cooperative learning

Strategies applied: students have choices in the selection of readings that drive discussion group formation

**instructor perception rank 5 and student perception rank 4

Positive interdependence - Individual accountability- Promotive interactions - Elaborate explanations

Peer Interactions in Online Biopsychology Courses

Jennifer Brielmaier

Associate Professor, Psychology/Neuroscience

Course Descriptions

	PSYC 372	PSYC 373
Format	Lecture (3 credits), asynchronous	Lab (2 credits), asynchronous
Enrollment	~40	~20
Course Topics/Objectives	<ul style="list-style-type: none"> ● Introduction to the field ● Nervous system structure/function ● Neural bases of normal/abnormal behavior ● Application of course content to real-life scenarios and problems 	<ul style="list-style-type: none"> ● Basics of neurons and neurophysiology ● Locations and functions of brain and eye structures ● Research methods
Weekly Modules	<ul style="list-style-type: none"> ● Lecture + supplementary videos ● Graded work: <ul style="list-style-type: none"> ○ Quiz ○ Group activity 	<ul style="list-style-type: none"> ● Mini lecture and dissection OR research demo videos ● Brain/eye dissections OR simulation/inquiry-based activity ● Graded work: <ul style="list-style-type: none"> ○ Draft lab report → peer discussion/review → final report

PSYC 372: Group Activities

- Same groups of 4-5 all semester
- Bb Group Discussion Board
- Assessment: 9-point rubric (quality and timeliness); individual grade
- Goals:
 - Reinforce and extend learning of course content
 - Low stakes assessments
 - Community building/learning from each other
 - Apply learning to real life scenarios
 - Explore additional resources

Examples

Apply course content to explain a real world topic

- Jigsaw format
- Specific prompt: compare/contrast

Ch. 4 Group Activity: Neural Conduction and Synaptic Transmission in Real Life

This activity is designed to give you a better understanding of neural conduction and synaptic transmission through real-life examples. To complete this activity, you must do the following:

1. Figure out your number by looking at your position on the list of group members. If you are first on the list you are number 1, if you are second on the list you are number 2, and so on.
2. Do an Internet search on the topic corresponding to your number.
3. Compose 1 paragraph describing how your topic relates to neural conduction and/or synaptic transmission. Your description must include key words/topics from the chapter (e.g. ion channels, action potentials, synapses, reuptake) as well as the source(s) used.
4. Post your description to the Group Discussion Board to share it with your fellow group members.
5. Reply to at least one fellow group members' post with a comparison (similarity) OR contrast (difference) between your topic and their topic
6. Information from your post and your fellow group members' posts are fair game on exams!

Topics:

1. Why the Japanese pufferfish (fugu) can be dangerous to eat
2. How local anesthetics (e.g. Novocain) work
3. Why Botox reduces wrinkles
4. How methamphetamine produces euphoria
5. The role of neurotransmitters in seizures
6. Why opioids are so addictive

Response to a radio segment on a controversial/surprising topic

Ch. 13 Group Discussion: The Testosterone Show

Adapted from

<https://teachpsych.org/Resources/Documents/ebooks/neuroscience2015.pdf>

This activity is designed to get you to think further about biological (hormonal) influences on psychological functioning. You will a) carefully listen to a 45-minute radio segment, b) respond thoughtfully to the discussion questions using the Group Discussion Board and c) respond to at least two fellow group members' responses with a question or comment .

Instructions:

1. Work through all of the Sex and Hormones chapter materials on Blackboard. Be sure to also read through the textbook chapter 13. Pay particular attention to the "Men are Men and Women are Women Assumption", "Gender Identity", and "Independence of Sexual Orientation and Gender Identity" sections of the textbook chapter.
2. Listen to Acts One, Two, and Three of the Testosterone episode from the National Public Radio show *This American Life*: <https://www.thisamericanlife.org/220/testosterone>. (Transcript available here: <https://www.thisamericanlife.org/220/transcript>). Take notes to help you reply to the discussion questions. Questions on the content of the episode are fair game on the quiz and exams!
3. Go to the Group Discussion Board and locate the Ch. 13 forum. Create a new thread to answer the discussion questions below.
4. Reply to at least one fellow group member's post with a question or comment.

Discussion Questions

1. Based on what you heard on the show, what kinds of conclusions would you draw regarding possible differences in the way high testosterone-stimulated vs. low testosterone-stimulated individuals (i.e. typical males vs. typical females) experience the world? Be sure to cite examples from the show.
2. Describe something interesting or unexpected that you learned regarding the relationship between hormones and behavior/personality as a result of listening to this radio segment.
3. To what extent do you feel that your individual hormone levels determine your personality, behavior and/or abilities? Think about your specific personality and behavioral traits (e.g. abilities, interests, strengths, weaknesses). What might these things suggest about your specific hormonal makeup? Draw on information not just in the radio show, but also the chapter materials on Blackboard/in your textbook.

Mini cases (also jigsaw)

Ch. 14 Group Activity: The Sleep Clinic

Imagine you are a sleep medicine specialist tasked with reviewing cases and coming up with plans for testing, diagnosis, and/or treatment. To complete this activity, you must do the following:

1. Figure out your number by looking at your position on the list of group members. If you are first on the list you are number 1, if you are second on the list you are number 2, and so on.
2. Read the mini case that corresponds to your number and answer the associated questions. Use the lecture videos/slides and your textbook as sources.
3. Post your answers to the Group Discussion Board to share them with your fellow group members.
4. In addition to your answers, you must reply to at least one other students' post with a question or comment (e.g. something you found interesting or surprising, or something you didn't know before).
5. Information from your post and your fellow group members' posts are fair game on exams!

Mini Case 1: A new patient has come to you complaining that he is always tired, irritable, and has difficulty concentrating despite getting 8 hours of sleep per night. He does not report any symptoms consistent with hypersomnia or a parasomnia. You suspect he is simply unable to fall into a deep sleep.

Questions: What kind of technique/tool would you use to determine whether or not your patient is able to fall into a deep sleep? What kind of results would you expect to find if your hypothesis is correct?


Mini Case 2: Your new patient has just started medical school. She has to study for many hours to keep up with her coursework and as a result gets only a few hours of sleep per night.

Questions: Describe the physiological and psychological effects your patient is likely experiencing. If your patient's brain EEG activity were to be recorded in a sleep lab, what would you expect to find regarding the proportion of time she spends in the various non-REM sleep stages?

Mini Case 3: Your patient is a young adult who has been experiencing profound daytime sleepiness, extremely vivid dreams, an inability to move upon waking in the morning, and feelings of weakness when he experiences strong emotions. The symptoms have been present since childhood but seem to be worsening over time. He reports that his mother died when he was young but that relatives have told him she experienced similar symptoms.

Student Interactions/Instructor Presence

Responding to new questions/comments creates enhanced instructor presence

 **Why Botox Reduces Wrinkles** [redacted] 7 months ago


Wrinkles are a normal process to the human life. We all get them. Some people have wrinkles that are more apparent than others. We're all different and that's totally fine. However, they're individuals who choose to make changes to their appearance to give them a more youthful look. They get their wrinkles reduced through a procedure known as Botox. Some may wonder how does this procedure "remove" your wrinkles. Well, they cannot completely remove your wrinkles, but the procedure can make sure that they don't appear to show up as much as they should—or even at all. According to The Eye Associates of Washington D.C., Botox reduces wrinkles because it essentially blocks your nerves ("Botox Cosmetic", 2017, para 3). It's a nicotinic antagonist (Pinel, 2017, p. 99) As written in the tenth edition of *Biopsychology* by John Pinel, Botox "blocks the release of acetylcholine at neuromuscular junctions." (Pinel, 2017, p. 99). This means that it does not really give way for your muscles to contract, thus preventing wrinkles from easily forming. In sum, Botox doesn't stop wrinkles from ever appearing again; they just paralyze them. Usually, Botox lasts a couple of months, but individuals are allowed to get a touch up every few months to prevent their wrinkles from showing up on their face often.

References

Botox Injections for Treatment of Facial Lines and Wrinkles. (2017, March 6). Retrieved from <http://www.eyedoctorsofdc.com/botox-cosmetic-treatment-facial-wrinkles/>

Pinel, J.P. J. *Biopsychology*. [Chegg]. Retrieved from <https://reader.chegg.com/#books/9780134836054/>

[Reply](#) [Quote](#) [Edit](#) [Delete](#) [Email Author](#)

 **RE: Why Botox Reduces Wrinkles** [redacted] 7 months ago

Hey Emmanuela,

Botox has always been a spooky topic for me. Whenever I think of Botox I just see when celebrities face are so overdone and it looks so obvious and I wonder why they would do that. It is interesting to learn what the Botox is actually doing. Paralyzing nerves seems like a dangerous thing to do because does this mean they do not feel pain in the areas where Botox is applied?

Interesting topics create a back and forth discussion beyond the initial prompt

 **RE: Why Botox Reduces Wrinkles** [redacted] 7 months ago

That's a good question Faye!

I'm not completely sure if Botox numbs the actual feelings in the area in which it's applied. However, I do know that it affects that way in which individuals feel their emotion; meaning, because their facial expressions are limited—it affects the way in which they express themselves (which ends up affecting their overall emotion).

[Hide 1 reply](#)

 **Jennifer Sontag**  **RE: Why Botox Reduces Wrinkles** [redacted] 7 months ago

This is really interesting and provide support for a theory about emotion called the James-Lange theory. You will learn about it later in the semester!

[Reply](#) [Quote](#) [Edit](#) [Delete](#)

 **RE: Why Botox Reduces Wrinkles** [redacted] 7 months ago

Hi Emmanuela!

Great post and very fascinating topic! I find it interesting that Botox essentially blocks your nerves. Sometimes when someone has received botox their face seems to be paralyzed/emotionless. After reading your summary I believe this to be due to the long-lasting effects the chemical has on your neurotransmitters. I wonder does it stay an extended period of time in the synapses? If so that would relate to my post if you would like to take a look at it!

As a fun fact:

I recently took an environmental course at GMU and we studied the toxicity of Botox or Botulinum toxin. This toxin is also the causation of botulism. Have you ever heard of it? Its associated with food poisoning and the reason why many of our water bottles now say BPA free on them. I would say that people getting botox in their skin should do their own research into the toxin that is being used.

[Hide 1 reply](#)

 **Jennifer Sontag**  **RE: Why Botox Reduces Wrinkles** [redacted] 7 months ago

Botulinum toxin comes from a bacteria. About a century ago, food canning practices were not so good and there was a real risk of botulism from eating canned food the bacteria could grow inside the can.

BPA stands for bisphenol A and is a known hormone disruptor. It is used in plastics and can also be used inside the liner of cans used to store canned foods. Some places like Whole Foods now carry canned food that says "BPA free liner" on the label because of the concern over BPA.

Feedback

“Discussion board posts were varied and interesting”

“It was great that we were put into smaller groups... it was not as overwhelming as having to post weekly to many other students.”

“I think although the discussion post was a lot to do every week along with the notes and quiz, I think it did help me better understand the material. It allowed me to see the material in a real life situation.”

“I felt like the discussion post assignments helped to solidify my understanding of the materials”

“I think the discussion board activities weren't that helpful so I would recommend having less of them.”

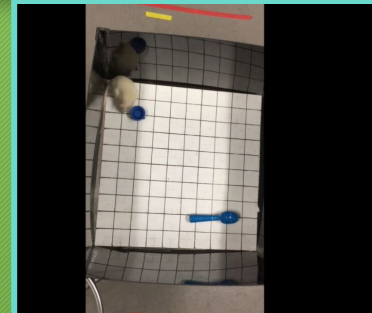
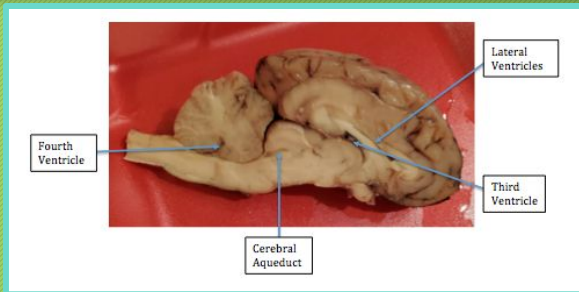
“Maybe add other activities other than a discussion post.”

“The only thing I would change would be to make it a requirement to turn in your first response for weekly assignments by a certain day. There were several times when my group members would not post until later the day it was due so I had to constantly check blackboard.”

PSYC 373: Peer Discussion/Review of Lab Reports

- Whole class
- Bb Discussion Board
- Timeline:
 - Complete draft report, post initial question/comment by Friday night
 - Respond to another student's post by Monday night
 - Submit final lab report by following Monday night
- Assessment: 9-point rubric (draft, quality, timeliness)
- Goals:
 - Recreate collaborative environment online
 - Reassurance
 - Authentic interactions

Student Interactions/Instructor Presence



Lab Report 3 Draft: (j) 7r

I had to go back and remove quite a bit of Dura Mater and remove extra tissue around the pituitary gland in order to find a couple of the nerves. The one I struggled with the most was trying to locate the Hypoglossal nerve. The second Trochlear nerve was accidentally removed during the removal of the Dura Mater but one was left attached.

PSYC 373 Lab Report 3 Draft.docx (16.096 MB)

[Reply](#) [Quote](#) [Edit](#) [Delete](#) [Email Author](#)

RE: Lab Report 3 Draft 7r

Hi Ashley,

Your Lab Report looks great. You had more nerves attached than I did. I wasn't sure if the Spinal Accessory Nerve was only on 1 side or both. Locating the hypoglossal nerve was a struggle for me too.

[▲ Hide](#)

RE: Lab Report 3 Draft 7r

Adwoa,

Thank you! I went off of the video that was posted and it showed it on the left side as well as one of the slides. I am not sure if they can be on either side or not.

[▲ Hide](#)

Jennifer Sontag (j) 6r

RE: Lab Report 3 Draft

The spinal accessory nerves emerge from both the right and left sides of the medulla, but usually only one (if any) is left intact when the brain is removed from the skull.

RE: Lab 8 4 months ago

I also had a similar concern about when the mouse was actually examining the object or the mouse was just near the object. I think sometimes, since the camera was from an overhead view, it was difficult to know if the mouse head was sniffing the object or the head was just hovering over the object. For times that the mouse was not actively examining an object I did not start the timer, which was similar to your approach.

RE: Lab 8 4 months ago

Anna,

I did as well! I turned the video into full screen and only had the timer going when I could see the rat was actually sniffing the item. My rats seemed more interested in sniffing the walls I wonder if that was because they could see their reflection.

Respectfully,

Ashley Olson

[▲ Hide 1 reply](#)

Jennifer Sontag (j) 4 months ago

RE: Lab 8

That would be an interesting potential confounding variable I wonder if the researchers thought of that too.

Feedback

“I greatly enjoyed the discussions. They were unlike most discussions in classes where we summarize an additional reading that frankly doesn't help learning, we were able to ask our peers questions and advice on our work. This helped increase understand the material and actively engage with our peers.”

“I really liked the discussion board. It made it easier to get questions answered and interact with other students.”

“Being able to help each other with our labs instead of having to turn them in blindly and stress-fully”

“The discussion boards and lab reports were most helpful because the interaction with the materials and other students helped me learn”

Challenges

- Staggered deadlines can be confusing for them and for me
- Students don't have much to say when they aren't having any trouble
- More engaging platform?

PSYC 340 Example

Type of interaction: between one learner and another and between all the students in a course.

Designed interaction: cooperative learning; structured group project

Strategies applied: student work collaboratively using online communication tools to complete case studies, projects, reports etc

**instructor perception rank 2 and student perception rank 2

Positive interdependence - Individual accountability- Promotive interactions - Elaborate explanations

Two Different Peer Interactions in an Online Course

Yi-Ching Lee
Assistant Professor, Psychology

Psy 340 - Intro to Human Factors

- Online - asynchronous via Blackboard
- Course core topics: (1) historical events in the development of Human Factors as a discipline and future directions, (2) the cognitive ‘attributes’ of humans, and (3) methods used for studying human-technology interactions and accident investigations.
- Overall structure:
 - 5 modules - each module 2-3 weeks - prerecorded lectures, reading, supplementary videos, online demos, etc.
 - Case study - 10 total - “famous” accidents due to human error
 - Group project
- Class size: 37

Psy 340 - Intro to Human Factors

- Learning objectives:
 - Explain how Human Factors becomes a specific discipline
 - Describe fundamental concepts related to human capabilities and limitations
 - Apply concepts related to human capabilities and limitations and analyze contributing factors in case study
 - Interpret the strengths and weaknesses of product design and research methods
 - Integrate methods and concepts related to human capabilities and limitations while evaluating and re-designing an existing product
 - Identify challenges in human's interaction with current and emerging technologies

Psy 340 - Intro to Human Factors

- Assignments:
 - Quizzes, each module, individual work
 - Reflection journals, each module, individual work
 - Posts and responses, each case study, individual + peer interaction
 - Students read each case study, then submit 1 post
 - Students read one classmate's post and then submit 1 reply
 - Group project proposal and report, collaborative group work
 - Draft proposal
 - Get feedback from me
 - Submit final proposal and conduct the proposed activities
 - Then submit group project report

Psy 340 - Intro to Human Factors

- Assignments:
 - Quizzes, each module, individual work
 - Reflection journals, each module, individual work
 - Posts and responses, each case study, individual + peer interaction
 - Students read each case study, then submit 1 post
 - Students read one classmate's post and then submit 1 reply
 - Group project proposal and report, collaborative group work
 - Draft proposal
 - Get feedback from me
 - Submit final proposal and conduct the proposed activities
 - Then submit group project report

Posts and responses, each case study, individual + peer interaction

- Designed to be
 - Reflective - students' own ideas and responses to each accident
 - Critical - find additional information and think of solutions
 - Interactive - read each other's post and gain additional thoughts from different perspectives

Posts and responses, each case study, individual + peer interaction

Part 1:

1. Read the case
2. Conduct Internet search to read more about what happened. Find 3 other sources of information about this accident.
3. Then document your accident analysis:
 - Summarize in your own words the nature of the accident
 - Paste the links to the 3 sources of information you found
 - Assess at least 3 contributing factors to the accident
 - Propose solutions to prevent such accident from happening again

Part 2:

1. Choose a new post that has not been replied by other students (this will help everyone to receive at least one response)
2. Read this classmate's original post
3. Then extend and critique the thoughts expressed in the original post:
 - Explain your agreement or disagreement with the contributing factors mentioned in the original post
 - Critique the proposed changes/designs/interventions mentioned in the original post. Explain your reasoning.

Posts and responses, each case study, individual + peer interaction

What worked?

Asking and allowing students to find resources on their own

The accidents are interesting and intriguing with lots of contributing factors to the accidents

Inviting students to analyze the accidents and propose possible solutions

Inviting students to be critical and creative at the same time

Part 2 due 3 days later

Did not work as well

Some students' replies were very short (like 2 sentences)

Students who submitted their original posts late or very close to deadline often did not get any replies. This in turn might have discouraged them from being more engaged

How to improve?

Set a minimum of sentences or words for the original and the reply posts

Randomly assign the post a student needs to reply to (does BB provide such random assignment?)

Each original and reply was worth 5 points. I would try giving the replies more weight

Overall, these case discussions contributed to learning objectives: experience the breadth of human factors, identify issues due to human capabilities and limitations, and analyze solutions

Group project proposal and report, collaborative group work

- Designed to be
 - Cooperative and collaborative - lots of communication among members
 - Reflective - students' own ideas and thoughts about the product
 - Critical - find additional information and think of solutions
 - Interactive - lots of working-together and incorporating each other's ideas toward the end goals
- Proposal and report template provided
- Students self-nominated to be facilitators; separate rubrics for facilitators and general members

Group project proposal and report, collaborative group work

Proposal:

1. Introduce the product you'd like to redesign (from 5 categories - websites, smartphone applications, home appliances, interfaces, and furniture)
2. Then, explore the Internet and collect pictures and text descriptions of the product and its features
3. Describe problems and poor features of the product
4. Use human factors theories and guidelines to propose how to redesign the product
5. As a group, complete sections 1, 2, and 3 of template

Report:

1. Draw the re-designed product and describe all the new features to demonstrate your creation
2. Compare the old and new designs and analyze how/why the re-designed product is better
3. Propose a user testing procedure to evaluate the re-designed product (refer to methods covered in module 3)
4. As a group, complete sections 4, 5, and 6 of template
5. List each group member's contributions

Group project proposal and report, collaborative group work

What worked?

Asking and allowing students to decide which product to redesign and find resources on their own

Inviting students to collaborate and communicate with each other, as participation was part of grading

Inviting students to be critical and creative at the same time

Detailed feedback was provided and students had the opportunity to address them in the final proposal

Having 1 or 2 facilitators for each step

Did not work as well

A 9-week group project (started in week 6) was very long

Each student's role was not defined; lots of confusion about who needs to do what when why; some group members did not contribute

Some students did not know how to search for scientific references and evaluate scientific rigor

1 group proposed their re-designed product that is already out there and thus missed the point of this project

All groups used BB tools to exchange contact info and then worked on proposal/report outside of BB

2 out of 4 groups did not follow the instructions

Multiple BB tools were used; it was perhaps too much for this format of online course

How to improve?

Streamline the instructions and BB tools

Distribute tasks more evenly among group members

Frequent check-in, perhaps through video conferencing

Smaller group size (perhaps 5-6 students per group)

Shorter project period (perhaps 5 weeks, starting in week 11)

Overall, this group project contributed to learning objectives: apply product design methods, analyze challenges in interaction with products, and connect human capabilities/limitations to product design principles

What I learned and what's next?

- I taught the in-person version of this course multiple times and used a very similar approach and had similar assignments
- Students really enjoyed reading/analyzing the accidents and the product re-design project!
- However, when taking this course online, direct copy-and-paste only worked partially...
- Will make some adjustments and offer the course again in Spring 2021
 - Streamline instructions
 - Provide more concrete structure for group work and peer interaction
 - Include some face-to-face video conferencing opportunities (optional)
 - Create space for students to collaborate within Blackboard, virtual classroom space
 - Demonstrate steps for searching for scientific references (video or step-by-step screenshots)

References

- Bol, L., & Garner, J. K. (2011). Challenges in supporting self-regulation in distance education environments. *Journal of Computing in Higher Education*, 23(2-3), 104-123.
- Bolliger, D.U., & Martin, F. (2018). Instructor and student perceptions of online student engagement strategies. *Distance Education*, 39(4), 568-583.
- Jung, I., Choi, S., Lim, C., & Leem, J. (2002). Effects of different types of interaction on learning achievement, satisfaction and participation in web-based instruction. *Innovations in Education and Teaching International*, 39(2), 153-162.
- Lou, Y., Abrami, P. C., & d'Apollonia, S. (2001). Small group and individual learning with technology: A meta-analysis. *Review of Educational Research*, 71, 449-521. doi:[10.3102/00346543071003449](https://doi.org/10.3102/00346543071003449).
- Martin, F., & Bolliger, D. (2018). Engagement matters: Student Perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, 22(1), 205-222.
- Moore, M. G. (1989). Editorial: Three types of interaction. *The American Journal of Distance Education*, 3(2), 1-6.
- Oyarzun, B., Stefaniak, J., Bol, L., & Morrison, G.R. (2017). Effect of learner-to-learner interactions on social presence, achievement and satisfaction. *Journal of Computing in Higher Education*, 30, 154-175.