# CSD 710: Research Methods and Critical Thinking in Communication Sciences and Disorders

Fall 2019

Wednesday, 1:00-1:50 pm, CPS 024

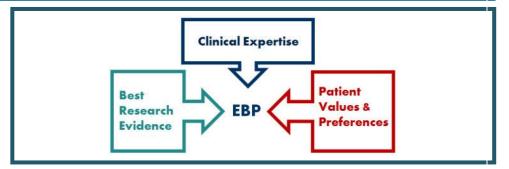
# Instructor

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# **Course Description**

- ✓ Mr. Jones saw a news segment about an innovative treatment that promises to cure his stuttering and he wants you to begin incorporating it into his speech therapy sessions.
- ✓ Your school district has invested in a new tablet-based protocol to treat pragmatic language problems with teenagers. Your special education director wants you to implement this "state-of-the-art" treatment even though you have questions about teens learning social skills without actual human interaction.
- You just completed an evaluation of a nonverbal preschooler with a G-tube who has a rare syndrome. You excitedly begin to research the syndrome before you plan intervention, but you cannot find any research about prognosis or types of intervention with regard to speech, language, cognition, and swallowing.

As a practicing speech-language pathologist, you will confront scenarios like those described above on a frequent basis. As a licensed and nationally credentialed speech-language pathologist, you will be required to engage in evidence-based practice. ASHA defines evidence-based practice as "an approach in which current, high-quality research evidence is integrated with practitioner expertise and client preferences and values into the process of making clinical decisions" (American Speech-Language-Hearing Association, 2005).

In this course you will learn about different types of research and how research studies are designed. You will develop skills to critically read research articles and determine the level and strength of the research. Through application activities (current events and discipline-specific), team-based learning, and group discussion, you will develop a systematic approach to critical thinking that will benefit you not only as a speech-language pathologist, but also a responsible citizen.

American-Speech-Language-Hearing Association (2005). Evidence-based practice in communication disorders [Position Statement]. Available from www.asha.org/policy.



Education is not the learning of facts, but the training of the mind to think.

Albert Einstein

	(May be adjusted as needed) Course Introduction Application Activity	Syllabus		
Module 1: A	Application Activity	•		
Research Design				
	Library	Why Do Many Reasonable		
	In-Class Discussion People Doubt Science			
	Asking the right questions	B & K—Ch. 1		
	How to read journal articles PICO, IRB process, history of research	Canvas Canvas		
Module 1	PICO, IRB process, flistory of research	Carivas		
	ssues and conclusions	B & K—Ch. 2, 3		
	Reasons	2 6.11 2 2, 6		
	Ambiguous words and phrases	B & K—Ch. 4		
	lournal article critique	Canvas		
	Research design	B & K—Ch. 5		
Module 2: Facts				
& Fallacies V	/alue and descriptive assumptions			
	allacies	B & K—Ch. 6		
Module 2 10/30	Evaluating evidence	B & K—Ch. 7, 8		
Module 2	Evaluating evidence	D α N—CII. 1, 0		
11/6 R	Rival causes	B & K—Ch. 9		
Module 3: Putting				
it Together				
	Examining statistics	B & K—Ch. 10		
Module 3 11/20 A	Canvas ASHA (in-class work day)			
Module 3	ASHA (III-Class work day)			
	Coming to reasonable conclusions	B & K—Ch. 11, 12		
Module 3	Insurance appeal			
	n-class practice	Canvas		
Module 3				
12/11 V Module 3	What if there is no evidence? Canvas			
	FINAL EXAM: Complex case study			
Thursday	,			

<u>Text</u>
Browne, M. N., & Keeley, S. M. (2011). *Asking the right questions: A guide to critical thinking.* New York: Pearson Education, Inc. (Note: 10<sup>th</sup> edition, not the most recent 11<sup>th</sup> ed.)

ASKING THE RIGHT QUESTIONS

M. NEIL BROWNE STUART M. KEELEY

# **Course Objectives**

- 1. Students will identify, compare, and contrast different levels of evidence (e.g., Level 1-clinical, randomized trials) and different types of research (e.g., qualitative, applied).
- 2. Students will apply a structured critical thinking approach to solve various clinical issues after considering a variety of perspectives and interventions. This will include how to proceed with a client when there is no/limited research on a particular disorder, syndrome, etc.
- 3. Students will consider the evidence-based triad of research, clinician values/perspective/experience, and client and family values/perspective/experience to support intervention decisions.
- 4. Students will demonstrate skill in reading and comprehending a variety of journal articles and types of research to assist them in making evidence-based clinical decisions.
- 5. Students will learn to access and use evidence-based resources using the library, databases, speechBITE, and preset literature notifications of new information.
- 6. Students will identify fallacies and biases that impact critical thinking.

### **EXPECTATIONS**

Students are expected to:

- Complete assigned readings before class.
- Come to class promptly and prepared to actively participate in discussion and in-class assignments.
- Answer questions asked by the instructor.
- Ask the instructor for clarification when needed.
- Display appropriate respect and courtesy to other students, guest lecturers, and instructor. (This includes sleeping in class, texting, packing up early, etc.)

The instructor is expected to:

- Be thoroughly prepared for class with handouts, questions, knowledge of assigned readings
- Have a solid rationale for why she is teaching the material
- Begin and end class on time
- Announce any changes to the syllabus during the semester, including date changes, in advance
- Answer any student questions. If I don't know the answer, I will find it out.
- Meet with students outside of class to discuss concerns or questions about the course requirements or the student's performance
- Treat all students with courtesy, have set office hours, provide constructive feedback, and return assignments efficiently.

# **Assignments**

- 1. Journal Article Critique—You will read and analyze a journal article and explain/critique the research design, bias, limitations, and conclusions (LO 1, 4).
- 2. Appeal Letter—You will write a letter of appeal using a critical thinking approach by identifying and responding to an argument through a well-written and research-based argument of your own (LO 5).
- 3. Critical Thinking Scenario—You will be given a multi-faceted simulation of a real-life professional experience. Using only the materials provided, your team will need to analyze the information with a critical eye and evaluate the situation to come up with a final product based on critical thinking and application of the research given to you (LO 1, 2, 3, 4, 6)
- 4. Hidden Brain podcast summary (optional)—You have the option to listen to a Hidden Brain podcast on the ostrich effect bias and write a summary (LO 6).
- 5. Quackery detection (optional)—Using the definition of quackery from the website, "Quack Watch," find an example of quackery from social media or other sources and explain why it is quackery (LO 2, 6).



# **Policy for Late Assignments**

All assignments are due at the beginning of class. Unexcused late assignments turned by 5 p.m. on the due date will receive a penalty of minus 5 percentage points. Unexcused assignments turned in the following day (and only due to extenuating circumstances) will receive a penalty of minus 10 percentage points. Assignments will not be accepted after the second day and the student will receive a grade of zero.

I realize that life goes on while you are in school. You get sick, car accidents occur, etc. Excused late assignments will be allowed (without penalty) for illness, emergency, funerals, etc. In order for a late assignment to be excused, you must discuss this with me BEFORE it is due.

Between email and my office phone, which are listed at the top of this syllabus, as well as my cell phone (715-572-2548) there is no reason that you should not be able to contact me. You may be asked to provide documentation of excused reasons.

I will accommodate religious beliefs according to UWS 22.03 if you notify me within the first 3 weeks of the semester regarding specific dates that you

## **Disability Statement**

If you have a disability that requires accommodation so that you may fully participate in class activities or meet course requirements, please contact me within the first week of class. Refer to <a href="http://www.uwsp.edu/special/disability/studentinfo.htm">http://www.uwsp.edu/special/disability/studentinfo.htm</a> for further assistance.

### **Academic Misconduct**

Please refer to

http://www.uwsp.edu/admin/stua ffairs/rights/rightsChap14.pdf for university policy regarding academic honesty and integrity.

### **EMERGENCIES**

In the event of a medical emergency, call 911 or use red emergency phone located in clinic hallways. Offer assistance if trained and willing to do so. Guide emergency responders to victim.

In the event of a tornado warning, proceed to CPS CSD Clinic hallways. Avoid wide-span rooms and buildings. In the event of a fire alarm, evacuate the building in a calm manner. Meet in front of HEC building. Notify instructor or emergency command personnel of any missing individuals. Active Shooter – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders. www.uwsp.edu/rmgt

# **ASHA Competencies Met:**

ASHA IV-E, F, G: The applicant must have demonstrated knowledge of standards of ethical conduct, the processes used in research and of the integration of research principles into evidence-based clinical practice, and contemporary professional issues.

This course will use a specifications grading system (Nilson, 2014), which is likely different from how you have been graded in the past. This grading scheme is directly related to your demonstrated competencies across the various learning outcomes for the course, which also correspond to ASHA's standards, knowledge, and skills. This type of grading also gives you a choice in determining your desired grade and the necessary work and competency to achieve it. All assignments will be graded as pass/fail, or more specifically as "Met competencies" or "Did not meet competencies." You will have two "tokens" or opportunities to meet competency if you did not meet it initially. Thorough directions will be given for each assignment with clear criteria for meeting competency.

B-	В	B+	A-	A
Complete	Complete	Complete all the	Complete all the	Complete all the
assignments 1,	assignments 1, 2, 3	requirements for	requirements for	requirements for
2, 3	competently	"B" competently	"B" competently	"B" competently
Competence	All competencies	Complete 1 of the 2	Complete both	Complete both
not met, even	are met, but 2	reflections	reflections	reflections
after use of 2	tokens may be used	competently, your	competently (4, 5)	competently (4, 5)
tokens	to achieve mastery	choice (4 or 5)		
		All competencies	All competencies	All competencies
		are met, but 2	are met, but 1 token	are met on the first
		tokens may be used	may be used to	attempt
		to achieve mastery	achieve mastery	

