

Syllabus
Psychology 461: Cognitive
Development

Course Description:

Overview:

Can babies learn before they are even born? When you are playing peek-a-boo with an infant, does she really think you've disappeared and come back again? Do we learn to talk because we are "wired" to learn language from birth and/or because people talk to us? Why do 6-year-olds get jokes that 4-year-olds don't? Does reading make you smarter? What is intelligence, anyway – is there one type of mental functioning that underlies all intellectual activity or are there distinct types of intelligences? Does taking a course in cognitive development change *how* you think about children's cognitive abilities or just *what* you know about what children understand at different ages? In this course, we will ponder these questions and more. We will examine how children's thinking (broadly defined) changes over time. By the end of this course, you will become familiar with the major theories concerning cognitive development and explore specific topics including perception, memory, language, and intelligence.

Specific goals for this course include:

- Examine age related changes in children's cognitive development
- Become familiar with the major theories in this area
- Gain an appreciation of the research methods used in this field
- Develop critical thinking skills in evaluating developmental research
- Achieve an understanding of the practical implications of research and theory concerning cognitive development

Text and Materials:

Textbook: "Children's Thinking: Cognitive Development and Individual Differences", Fifth Edition, by David F. Bjorklund, Ph.D.

Sakai site: The syllabus, course schedule, details concerning the paper assignments and powerpoints from lectures will be posted here. Please check for announcements, postings, and updates.

Students with Special Needs:

I encourage any students with a learning disability or difference or other special need to contact me at the beginning of the semester so that we can make any necessary arrangements for your success in this course.

Course Requirements:

Prerequisites:

Psyc 101 (General Psychology); Psyc 250 (Child Development).

Academic Integrity / Honor Code:

This is a big deal to me! As in all Carolina courses, the Honor Code is in effect. *The Instrument of Student Judicial Governance* requires that you sign a pledge on all written work that affirms "On my honor, I have neither given nor received unauthorized aid on this assignment." This Code applies to all exams and the paper. Although you may study together for exams, all exams are to be taken without the assistance of other people, books, or notes. Ideas or information in your written work must be appropriately referenced, whether the original source is written or verbal. Five or more words taken verbatim from any source must be placed in quotation marks with the source appropriately referenced.

Any violation of the Honor Code will need to be reported, so please don't commit any violations so I won't have to report any. If you have questions about any of these matters, ASK.

Class Participation:

Students are expected to read the required chapters prior to class, attend all class sessions, and participate in class discussions. Class will be a combination of lectures, discussions, films, and class activities. All of these will be much more interesting if you have completed the required reading prior to the class. Although I will not be taking attendance, many of the questions on the exams are based on information from class, so students with perfect attendance usually receive the highest grades. If you do miss a class, be sure to *check with a classmate* to find out what we did and to get the notes.

It is very important that in our discussions, we demonstrate *open-mindedness and a high degree of respect for the opinions and experiences of others*. Please display this respect in all interactions in this class. Also, along the lines of respect, please be punctual, as lateness is a distraction to everyone, and please remember to *turn off your cell phone before class*.

Recognizing that this is a long class period, we'll typically take a 5-10 minute break about half way through each class.

Exams:

There are 3 non-cumulative exams (2 given during the term; 1 during final exam period), each worth 25% of your total grade (for a total of 75% of your final grade for all the exams):

Exam I:	Monday, February 24	in class	chapters 1, 2, 3, 5
Exam II:	Monday, March 31	in class	chapters 4, 6, 7, 8
Exam III:	Tuesday, May 6	7:00pm	chapters 9, 12, 13

Material from the textbook, lectures, in-class discussion and activities, and in-class videos will be included on the exams. The format for the exams will be a combination of multiple-choice and short-answer questions.

During the term, make-up examinations will not be allowed unless you are seriously ill, have an extreme personal emergency, or are participating in a university-sanctioned activity (e.g., player in athletic competition). In those cases, please contact me before the exam if possible, but no later than 2 days after the exam. Written documentation will be required to validate the reason for needing to take a make-up exam (e.g., note from a doctor or your academic dean). In the case of the final exam, you need to discuss the situation with the dean, as per University policy.

Paper:

The goal of the term paper is to delve deeper into a topic in cognitive development of interest to you, using original source research on the topic. There are two paper options you can choose from to complete this task:

Option 1: Research Article Critique. For this option, you would select a research article in the field of cognitive development, review the study presented in the paper (introduction, methods, results, discussion) and critique it (considering strengths, weaknesses, and possible directions for future work in the area).

Option 2: Consideration of a Controversy. For this option, you would select a current controversy in the field of cognitive development, select 2 opinion pieces (one on each side of

the debate) and 3 or more empirical articles (original source research) on the topic, and write a paper that summarizes opinion and evidence supporting each side of the issue and then use these sources to develop your own opinion on the topic as well.

More specific information concerning requirements for each paper option is provided at the end of the syllabus.

Paper due dates:

February 10: By this date you must have selected all your source material (1 research article for Option 1; 2 opinion pieces and 3 or more empirical articles for Option 2) and developed an outline for your paper (*following the paper outlines provided below*). *In class this day, you must provide hard copies (yes, real paper) of the source material(s) and your outline.*

March 3: Optional draft; I will be happy to read a draft of your paper and provide comments, but I must get a hard copy of the draft, with the hard copies of source(s), by this date.

March 24: *In class this day, you must provide again the hard copies of the source material(s) and your final term paper.* If you turned in optional draft, turn in this draft with final paper as well. **NO LATE PAPERS WILL BE ACCEPTED! (REALLY!)**

The paper is worth 25% of your grade for the course.

Grading:

As indicated above, each exam and the term paper are worth 25% each of your total grade each. In addition, I reserve the right to raise (but not lower) *borderline* grades when students have demonstrated high levels of involvement, have made marked improvement over the semester, or have accomplished a notable achievement (e.g., perfect score on an exam; superior paper). For each individual grade (each exam and the paper), as well as for your final grade, grades will be assigned based on the following distribution:

Percentage	Grade
93-100%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
67-69%	D+
60-66%	D
< 60%	F

Psych 461, Course Calendar
*(subject to change as semester
 progresses)*

date	chapters	topics
1/13	1	First Day / Introduction
1/20	holiday	MLK Day / NO CLASS
1/27	2	Biological Bases of Cognitive Development
2/3	paper	NO CLASS / SELECT SOURCE(S) FOR PAPER AND WRITE
2/10	3 5	Sociocultural Perspectives on Cognitive Development / Thinking in Symbols (Piaget) PAPER SOURCE(S) AND OUTLINE DUE
2/17	5 review	Thinking in Symbols (cont.) / catch-up and
2/24	exa m 4	EXAM I / Infant Perception and Cognition
3/3	4 6 (pp. 196-219)	Infant Perception and Cognition (cont.) / Theory of Mind <u>due date for optional draft of paper</u>
3/10	break	SPRING BREAK / NO CLASS
3/17	7 8	Executive Function, Strategies, & Problem Solving / Memory Development
3/24	8	Memory Development (cont.) / Catch-up and review for exam
3/31	exa m 9	EXAM II / Language Development
4/7	9 12	Language Development (cont.) / Approaches to the Study of
4/14	12 13	Approaches to the Study of Intelligence (cont.) / Origins, Modifications, and Stability of Intellectual Differences
4/21	13	Origins, Modifications, and Stability of Intellectual Differences (cont.) / Final thoughts and catch-up and
Tue. 5/6	exam	EXAM III @ 7:00pm

PAPER OPTION 1: ARTICLE CRITIQUE

- **Topic:** Critique of a research article in the field of cognitive development; specific topic within this area is up to you. Any main topic covered in our text book is acceptable (even if from chapters we will not cover in this class).
- **Formatting:** The paper must be 10-15 pages, typed, double-spaced, 12-point font, with no greater than 1" margins all around.
- **Title Page:** Include a title page with your name, the full citation of the article (in APA format), date your paper is turned in, and your signature indicating your compliance with the honor code in completing the assignment.
- **Criteria for selected article:** The article you choose **must** be:
 - Published in the year *2000 or later*
 - About some aspect of cognitive development (i.e., any topic covered in the text book)
 - About a research study (i.e., not a review article, not a chapter, not a brief report, etc.)
 - The study should have clear independent variable(s) (IV) and dependent variable(s) (DV) (may also have moderators and/or mediators as well)
 - It may either be an experiment (manipulation of IV(s) and effects on DV(s) measured) or a correlational study (IV(s) not manipulated, rather natural variability in IV(s) statistically associated with variability in DV(s)).
 - The article may be about multiple studies. If this is the case, follow the outline below, with sub-sections in the Methods and Results sections for each study.
 - In the APA format of: Introduction, Methods, Results, Discussion
 - In one of the following journals: *American Education Research Journal, Applied Cognitive Psychology, Applied Developmental Science, British Journal of Developmental Psychology, Child Development, Child Development Perspectives, Cognition, Cognitive Development, Developmental Psychology, Developmental Science, Early Childhood Research Quarterly, Infant Behavior and Development, Infancy, Infant and Child Development, International Journal of Educational Research, Journal of Adolescence, Journal of Applied Developmental Psychology, Journal of Child Language, Journal of Cognition and Development, Journal of Cognitive Neuroscience, Journal of Educational Psychology, Journal of Experimental Child Psychology, Journal of School Psychology, Journal of Marriage and Family, Research in Developmental Disabilities*
 - *If you find an article you really want to review but it's in a journal not on this list, be sure it meets criteria above and then email it to me and I will look it over and let you know if it is acceptable*
- **Grading Criteria:** using a 100 point scale, points will be allocated as follows:
 - Review: 60 points
 - Introduction: 15
 - Methods: 15
 - Results: 15
 - Discussion: 15
 - Critique: 40 points
 - Strengths: 15
 - Weaknesses: 15
 - Next Steps: 10
 - **5 POINTS WILL BE DEDUCTED FOR NOT FOLLOWING FORMATTING AND TITLE PAGE INSTRUCTIONS ABOVE!**
- **USE THE OUTLINE ON THE FOLLOWING PAGE FOR YOUR PAPER; *OUTLINE AND HARD COPY OF ARTICLE DUE FEB. 10!***

Paper Option 1 Outline: Article Critique

I. Article Review

A. Introduction

1. What is the general topic? In a few sentences state generally what is being investigated and provide definitions of main construct(s) under study (may need to reference text book for this)
2. Why is the study important? In a few sentences, what's the rationale for doing it? (may be applied and/or theoretical)
3. Briefly state the theoretical idea(s) the study is testing; the theoretical assumptions underlying the study (may not be directly stated by the authors, thus you may need to consider general theories and themes of developmental psychology)
4. Briefly summarize the studies reviewed that support doing this study (need to provide only a few sentences summarizing the prior research the authors are building upon, main points).
5. Clearly state the independent and dependent variables, and any moderator or mediator variables if included (if not clearly stated by the authors, state what you believe them to be based on the analyses conducted)
6. State the hypotheses of the study (if not clearly stated by the authors, state what you believe them to be based on the analyses that were conducted)

B. Method

1. Describe the participants:
 - a. sample sizes (total for whole sample as well as any sub-groups)
 - b. ages
 - c. any other demographic information such gender, ethnicity, income important for generalizability of the study (if not provided, clearly say so)
2. Describe the procedures – briefly, what they did
3. Describe any instruments/measures
 - a. what instruments/measures were used to measure each construct / variable
 - i. for each, report information given concerning its validity (if none given, clearly say so)
 - ii. for each, report information given concerning its reliability (if none given, clearly say so)

C. Results

1. Briefly describe any descriptive or preliminary analyses conducted
2. For each hypothesis:
 - a. state what statistical analyses were conducted
 - b. briefly describe the findings (do not need to provide exact statistics)

D. Discussion

1. Summarize major findings
2. Briefly describe each of the main points the authors make in the discussion, including how the study is consistent and/or inconsistent with prior work, and the unique contribution this study makes to the field

II. Article Critique

A. Strengths – describe **3** strengths of the study

- strengths might include importance of the topic, aspects of the methods, generalizability of the results, etc.
- for each strength you've identified, describe the strength and say *why* it is a strength (e.g., you may say the sample included families from all income levels; this is a strength because the result thus generalize to families in all income levels)

B. Weaknesses – describe **3** weaknesses of the study

- weaknesses might include importance of the topic, aspects of the methods, generalizability of the results, etc.
- for each weakness you've identified, describe the weakness and say *why* it is a weakness

(e.g., you may say the sample size was very small; this is a weakness because it means less power to find significant associations and thus any non-significant findings should be interpreted with greater caution)

c. Next steps for this line of research

1. Describe what studies need to be done next that would examine the *same hypotheses* tested in this study but address the weaknesses of this study (e.g., a study that tests the same variables but with better measures, a bigger sample, a more representative sample, a better research design that would allow for testing cause/effect, etc.)
2. Assuming the hypotheses found in this study are true despite the weaknesses, what studies should be done next in this line of research? Thinking conceptually, what hypotheses should be investigated next? (e.g., if the study examined a main effects question, are there moderators or mediators that could be tested next?).

PAPER OPTION 2: CONSIDERATION OF A CONTROVERSY

- **Topic:** The field of cognitive development is full of controversies (both theoretical debates as well as how it is applied in educational settings); people are always arguing about one thing or another.

Examples include:

- Although researchers now generally agree both nature and nurture are important in the development of intelligence, how much of each is an influence and/or how do these forces interact to influence intellectual development? (could apply to almost any topic in cognitive development)
- Is ADHD a disorder of the individual or due to a mismatch between the environments that were typical during thousands of years of evolution and the modern environment?
- What's the cause of the "achievement gap" and what's the "best" way to address it? (could apply to the gap between poor and not-poor children, between different ethnic groups, or between the US and other countries)
- When and what's the "best" way to teach reading?
- What's the "best" way to test what children really know? Is "high-stakes testing" effective?
- Is the use of technology "good" or "bad" for children's learning?
- Are charter schools "good" or "bad" for children's learning?
- What's the "best" way to address learning disabilities and differences?
- Should pre-school be universal?
- Is Head Start effective?
- Is year-round schooling better for children's achievement?
- What's the "best" way to teach children from immigrant families (i.e., issues concerning ESL (English Second Language classes) and dual-language learning)?
- Do children learn better in classes that include differing levels of ability or those that include only children with similar ability levels?
- Do children develop the ability to think abstractly in stages or is this development more continuous? Is the change qualitative or quantitative? (could be applied to the development of many other abilities as well)

The list goes on and on and on. Select a *current* controversy in the field of cognitive development, and write a paper that summarizes opinion and evidence supporting each side of the issue and use these sources to develop your own opinion on the topic as well. You may choose from the controversies listed above or any other related to cognitive development (any topic covered in our text book is acceptable, even if from chapters we will not cover in this class).

- **Formatting:** The paper must be 10-15 pages, typed, double-spaced, 12-point font, with no greater than 1" margins all around.
- **Title Page:** Include a title page with your name, date your paper is turned in, and your signature indicating your compliance with the honor code in completing the assignment.
- **References:** Include a reference list citing all sources used for your paper, using APA format.
- **Sources:** 2 opinion pieces, and 3 or more empirical articles (original research sources)

- *Criteria for the 2 opinion sources; Select 1 opinion piece from each side of the debate:*
 - Published in the year 2005 or later
 - Can be from any published source, such as journals, newspapers, magazines, etc. (editorials from on-line publications and blogs are acceptable, but you must provide both the web address and a printed hard copy of the piece). A typical example is an editorial in *The New York Times*.
- *Criteria for the 3 or more empirical articles: original research sources that provide empirical evidence directly related to the debate:*
 - Published in the year 2000 or later
 - They may be experiments, correlational studies, report a series of studies, meta-analyses, review articles
 - In one of the following journals: *American Education Research Journal, Applied Cognitive Psychology, Applied Developmental Science, British Journal of Developmental Psychology, Child Development, Child Development Perspectives, Cognition, Cognitive Development, Developmental Psychology, Developmental Review, Developmental Science, Early Childhood Research Quarterly, Infant Behavior and Development, Infancy, Infant and Child Development, International Journal of Educational Research, Journal of Adolescence, Journal of Applied Developmental Psychology, Journal of Child Language, Journal of Cognition and Development, Journal of Cognitive Neuroscience, Journal of Educational Psychology, Journal of Experimental Child Psychology, Journal of School Psychology, Journal of Marriage and Family, Research in Developmental Disabilities*
 - *If you find an article you really want to include but it's in a journal not on this list, be sure it meets criteria above and then email it to me and I will look it over and let you know if it is acceptable*
- **Grading Criteria:** using a 100 point scale, points will be allocated as follows:
 - Introduction: 15
 - Review of opinion: 20
 - Review of research: 30
 - Your opinion: 20
 - Conclusion: 15
 - **5 POINTS WILL BE DEDUCTED FOR NOT FOLLOWING FORMATTING, TITLE PAGE, AND REFERENCES INSTRUCTIONS ABOVE!**
- **USE THE FOLLOWING OUTLINE FOR YOUR PAPER; *OUTLINE AND HARD COPIES OF SOURCES DUE FEB. 10!***

Paper Option 2 Outline: Considering A Controversy

- I. Introduction
 - A. What is the general topic? In general, what's the issue? Define main terms, constructs, or variables (may need to reference text book for this)
 - B. Why is the issue important? (may be applied and/or theoretical)
 - C. State the main argument on one side of the issue (just a couple sentences stating the main point)
 - D. State the main argument on the other side of the issue (just a couple sentences stating the main point)
- II. Review of the Opinions on Each Side of the Debate
 - A. Summarize the opinion of "Side A"
 - a. Report arguments made in support of Side A (why Side A thinks they are right; "pro-A" side)
 - b. Report arguments Side A makes against Side B (why side A thinks Side B is wrong; "anti-B" side)
 - B. Summarize opinion of "Side B"
 - a. Report arguments made in support of Side B (why Side B thinks they are right; "pro-B" side)
 - b. Report arguments Side B makes against Side A (why side B thinks Side A is wrong; "anti-A" side)

side)

III. Review of Evidence

- In your review of evidence, try to address each of the following (if you did not find any evidence that fits a particular category (e.g., no evidence that supports neither side), include this in your introductory paragraph to this section of the paper)
 - Empirical evidence that supports arguments made by Side A
 - Empirical evidence that supports arguments made by Side B
 - Empirical evidence that supports arguments made by both sides
 - Empirical evidence that supports neither side of the debate

IV. Your opinion

- Based on your readings (and any personal experiences if pertinent), what's your view of the issue **and why**?
- Organize this section around main points organized into distinct paragraphs, where each pulls on multiple sources (i.e., organize this section like a typical essay with an introduction that includes a thesis statement, followed by separate paragraphs for each point introduced in your thesis statement)

V. Conclusion

- What over-all conclusions can be drawn?
 - If applicable, consider evidence, issues or questions each side is not taking into account
 - If conclusion is that more research is needed to settle the issue, state what studies should be done to help further understanding
 - If there's enough evidence accumulated to support one side or the other (or maybe both sides or neither), state next steps in terms of how to apply this knowledge
 - Take home message