Undergraduate Distance Education Review Form

(Required for all courses taught by distance education for more than one-third of teaching contact hours.)

Existing and Special Topics Course

Course: <u>PSYC310</u>

Instructor(s) of Record: <u>Dr. Catherine Raeff</u>

Phone: <u>724-357-2422</u>   **Email:** <u>craeff@iup.edu</u>

Step One: Proposer

A. Provide a brief narrative rationale for each of the items, A1- A5.

1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?

   I graduated from Clark University with a Ph.D. in 1993, and then went on to a two-year postdoctoral position at UCLA to further study developmental psychology. I have been teaching several sections of PSYC310 every semester since coming to IUP in 1995. My teaching of this course has been observed numerous times by my colleagues in the Psychology Department, as well as by the Department Chairs. In order to transform PSYC310 into a course that is appropriate for distance education, I have availed myself of several training opportunities at IUP. Specifically, I participated in the distance education workshop that was conducted for the Psychology Department in the Spring of 2006. During the Fall of 2006, I spent several hours with Brian Carothers at the Instructional Design Center in an intensive individualized WebCt training session. I will be meeting with Mr. Carothers as I proceed with designing this distance education course.

2. How will <u>each objective</u> in the course be met using distance education technologies?

   <u>Objective 1</u>. One objective of this course is for you to learn about the sequence of development for different domains of behavior. In particular, changes in how infants, children, adolescents, and adults think, speak, relate to others, and form a sense of self will be discussed.
       To achieve this objective, students will be required to critically read the textbook and the supplemental materials that I will provide (e.g., powerpoint presentations, lectures written out). The textbook and the supplemental materials cover the sequence of development for the domains of behavior that are specified for this objective. The textbook supplemental materials also include video clips of varied developmental phenomena.

   <u>Objective 2</u>. One objective of this course is for you to become familiar with theories and research about development during the lifespan.
       To achieve this objective, students will be required to critically read the textbook, and the supplemental materials that I will provide (e.g., powerpoint presentations, lectures written out). The textbook and the supplemental materials cover numerous theories of development, and this coverage of developmental issues is research based. In addition, the students will be required to critically read a primary source article that address issues of theory and research in developmental psychology. Students will answer questions about this article that will enable them to analyze developmental theories and research.

   <u>Objective 3</u>. One objective of this course is for you to gain an understanding of the cultural nature of human development. The roles of culture will be considered as we discuss different sequences of development and as we discuss different theories of development.
       One of the main reasons that I use the current textbook is because of how the author integrates culture into her coverage of developmental psychology. In addition, my supplemental lectures will provide ways for students to think about how culture is always part of human behavior and development. The primary source article also addresses cultural issues and the liberal studies text is a novel about a girl who

grows up in Puerto Rico and ends up moving to New York as a teenager. Thus, cultural issues will be fully integrated throughout the course.

Objective 4. One goal of this course is to help you learn to present your knowledge, ideas, and thinking in a focused and organized way. For this reason, you will write several in-class assignments, and answer some discussion questions about the liberal studies text.

Students will complete varied written assignments, as well as a written assignment for the liberal studies text.

3. How will instructor-student and student-student, if applicable, interaction take place?

The course Homepage will include an email icon that will enable them to send email messages to me. I will also give students my IUP email address, as well as a phone number. I may also include a discussion option for this course which would enable students to "talk" to me and with each other about varied course issues.

4. How will student achievement be evaluated?

Student achievement will be evaluated in several ways, including evaluations of their performance on exams and written assignments. The course will be divided into units that revolve around the textbook, and the units will also include supplemental material (e.g., textbook supplemental materials and written lectures prepared by me). For each unit, the students will take an exam, with questions that are based on the textbook chapter and any supplemental materials. The students will also complete a written assignment for the liberal studies text that requires them to relate the book to developmental concepts. In addition, the students will complete several written assignments that require them to think critically about developmental issues.

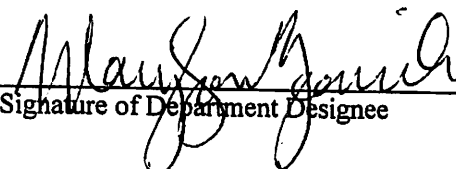5. How will academic honesty for tests and assignments be addressed?

The writing assignments are unlikely to be available from paper writing services because they address issues that are particular to how I am organizing this course. Although I will use some of the textbook's exam questions, some of the exam questions will be written by me. Over the years, I believe that I have developed a kind of sixth sense that enables me to discern when students are submitting writing that is not their own. I have found that it is rather easy to find the online sources that they have used. Thus, I can deal with such cases in accord with IUP's academic integrity policy. The syllabus also includes a statement about IUP's academic integrity policy.

B. Submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.

Step Two: Departmental/Dean Approval

Recommendation: ☒ Positive (The objectives of this course can be met via distance education)

☐ Negative

_____   2 13 07
Signature of Department Designee   Date

Endorsed: _____*Gerald Bunick*_____ _2/14/07_
                  Signature of College Dean   Date

Forward form and supporting materials to Liberal Studies Office for consideration by the University-wide Undergraduate Curriculum Committee. Dual-level courses also require review by the University-wide Graduate Committee for graduate-level section.

Step Three: **University-wide Undergraduate Curriculum Committee Approval**

Recommendation: ☑ Positive (The objectives of this course can be met via distance education)

☐ Negative

_____*Gail S Sechrist*_____ _3/20/07_
      Signature of Committee Co-Chair   Date

Forward form and supporting materials to the Provost within 30 calendar days after received by committee.

Step Four: **Provost Approval**

☑ Approved as distance education course   ☐ Rejected as distance education course

_____*C R Samuel*_____ _3/24/07_
      Signature of Provost   Date

Forward form and supporting materials to Associate Provost.

Psychology 310
Developmental Psychology
Spring 2007

Monday, Wednesday: 3:30-5

Instructor

C. Raeff
301 Uhler Hall
Email: craeff@iup.edu
724-357-2422
Office Hours: Monday, 1-2:30
                       Tuesday, 9:30-11:30
                       Wednesday, 1-2:30
                       Or by appointment

Course Objectives – In general, this course will provide you with an overview of current knowledge in the field of lifespan developmental psychology. The course will be organized around the following specific objectives:

1. One objective of this course is for you to learn about the sequence of development for different domains of behavior. In particular, changes in how infants, children, adolescents, and adults think, speak, relate to others, and form a sense of self will be discussed.
2. One objective of this course is for you to become familiar with theories and research about development during the lifespan.
3. One objective of this course is for you to gain an understanding of the cultural nature of human development. The roles of culture will be considered as we discuss different sequences of development and as we discuss different theories of development
4. One goal of this course is to help you learn to present your knowledge, ideas, and thinking in a focused and organized way. For this reason, you will write several in-class assignments, and answer some discussion questions about the liberal studies text.

Readings and Class Material
        The main text is meant to serve as a supplement to class lectures. There will also be some primary source reserve readings, as well as a liberal studies text. Some of the issues discussed in class will not be in the texts. You will be responsible for any material covered in class and in the texts. I will also sometimes ask you to find information about a topic in the textbook to prepare for an upcoming class discussion.
        Texts

                        -Berk, L. *Development through the Lifespan*
                        -Liberal Studies Text: Santiago, E. *When I was Puerto Rican*
                        -Three Primary Source Readings: Kanner, B. "Sleeping the Night Away"
                                        Mosier & Rogoff. "Privileged Treatment of Toddlers"
                                        Arnett, J. "Emerging Adulthood"
                        EReserve Password: raepsyc310

Exams

There will be three exams during the semester, and a final exam during exam period. Each exam will consist of discussions, multiple choice, and/or short-answer questions.

Written Assignments

There will also be some "reading questions" that are designed to guide you as you read the primary source readings. Each set of reading questions is worth 10 points, and can be found in the syllabus packet.

Students are expected to read the liberal studies text throughout the semester. We will incorporate the book into our class discussions when it is relevant, and one day is reserved for explicitly discussing the text in relation to a set of discussion questions.

Class Activities

Some scheduled class activities will involve in-class written assignments. Each of these assignments will be worth grade points. For one of the in-class written assignments you will be able to earn extra credit points.

Class Participation

Class discussions are an important part of this course. Students are expected to participate in class discussions and activities. If you are on the border between grades at the end of the semester, and you have participated regularly in class, you can earn the higher grade. The borderline is defined as 6 points away from the next highest grade.

General Policies

- ❖ All scheduled exam dates, class activity dates, and written assignment due dates are part of the course requirements. If you have a serious reason for not taking an exam when scheduled, you will be expected to notify me before the exam, if at all possible. Makeup exams may have a different format than the original exam. For the liberal studies paper, two points will be subtracted for every day that it is late. In-class assignments may be made up within one week.
- ❖ For all written assignments and exams we will adhere to IUP's academic integrity policy.
- ❖ It is your responsibility to come to class, to be awake, to pay attention, and to be active.
- ❖ It is possible that some changes may be made to the syllabus during the course of the semester. We will discuss any such changes in class.
- ❖ Email is a good way to contact me. I consider email messages between faculty and students to be professional communications. Therefore, I expect your email messages to be written clearly, with correct punctuation, grammar, and spelling. I will ask you to rewrite messages that have mistakes beyond a typo or two. I realize that you probably think that I am being unreasonable, and that you might be thinking, "It's just email". As an educator, I think that this is part of your professional preparation. If you send messages that are full of mistakes, potential employers will think you are lazy and/or illiterate.

Grades

Your final grade will be determined based on the number of points you have earned on the various exams, in-class assignments, and written reports divided by the total number of possible points. The following scale will be used to determine the final grade:

90%-100%=A
80%-89%=B
70%-79%=C
57%-69%=D
56% and below=F

In this class, A work requires thoughtful integration of the course materials.

The final exam is on May 7, at 2:45pm.

Course Outline

Date	Topic	Reading/Assignment

Always keep up with *When I was Puerto Rican*

1/17   Introduction

1/22   Theoretical Issues   Text-Ch 1
                                                        Text-Ch 2 *59+

1/24   Theoretical Issues

1/29   Theoretical Issues &   Text-Ch 3 * 106+
        Infant Activities   "Sleeping the Night Away"
                                                        Reading Questions Due

1/31   Infant Activities &   Text-Ch 5 *151-172
        Constructing Knowledge

2/5   Constructing Knowledge

2/7   **Exam 1**

2/12   Attachment   Text-Ch 6 *196-206

2/14   Attachment
        In-Class Assignment (10 points)

2/19   Attachment &   Text-Ch 5 *172+
        Language Development

2/21   Language Development

2/26   Parent-Child Relationships   Text-Ch 8 *279+
                                                        "Privileged Treatment of Toddlers"
                                                        Reading Questions Due

2/28   Preoperations/Concrete Operations   Text-Ch 7 *227-240
                                                        Text-Ch 9 *298-303

3/5   **Exam 2**

3/7   Preschool in Three Cultures
        Extra Credit Assignment

3/19	Self Conceptualization	
3/21	Self-Conceptualization & Gender Identity	
3/26	Gender Identity & Identity Formation	
3/28	Identity Formation	Text-Ch 12 *399-405
4/2	Identity Formation <u>In-Class Assignment (10 points)</u>	
4/4	Adolescent Issues	Text-Ch 11 *361-380 Text-Ch 12 *415+
4/9	Adolescent Issues & Formal Operations	Text-Ch 11 *380-389
4/11	**<u>Exam 3</u>**	
4/16	*When I was Puerto Rican*	
4/18	Emerging Adulthood	"Emerging Adulthood" **<u>Reading Questions Due</u>**
4/23	Adult Transitions	Text-Ch 14 **<u>"Puerto Rican" Questions Due</u>**
4/25	Social Roles &	Text-Ch 16
4/30	Old Age	Text-Ch 17

Psychology 310, WebCT
Developmental Psychology
Pre-Session, Summer, 2007

Instructor: Dr. Catherine Raeff

Our communication will take place primarily through the Mail tool on the Homepage for this course. I will check my mail regularly (at least once a day), and I will respond promptly to your questions. We will also communicate about course content through the Discussion icon on the Homepage. We can also talk on the phone about issues that arise.

<u>Course Objectives</u> – In general, this course will provide you with an overview of current knowledge in the field of lifespan developmental psychology. The course will be organized around the following specific objectives.

1. One objective of this course is for you to learn about the sequence of development for different domains of behavior. In particular, changes in how infants, children, adolescents, and adults think, speak, relate to others, and form a sense of self will be discussed.
2. One objective of this course is for you to become familiar with theories and research about development during the lifespan.
3. One objective of this course is for you to gain an understanding of the cultural nature of human development. The roles of culture will be considered as we discuss different sequences of development and as we discuss different theories of development.
4. One goal of this course is to help you learn to present your knowledge, ideas, and thinking in a focused and organized way. For this reason, you will write several papers and answer some discussion questions about the liberal studies text.

<u>Required Texts</u>

<u>Main Textbook</u>: Berk, L. (2006). *Development through the lifespan*. Boston: Allyn and Bacon.

This textbook is available online for students taking this course. Some hard copies may also be available through online book sellers.

<u>Liberal Studies Text</u>: Santiago, E. (1993). *When I was Puerto Rican*. New York: Vintage Books. This book may be purchased at the IUP bookstore or through online book sellers.

<u>Article</u>: Arnett, J. "Emerging adulthood"
This article is provided within Unit 11.

<u>Course Format and Requirements</u>

<u>In General</u>. All of the material for this course will be presented through WebCT. The course will be organized in terms of units, and each unit will consist of several elements. For each unit, you will have to read in the textbook. A study guide to help you

learn as you read will be provided for you. Each unit will also include some supplemental material, such as a "lecture" prepared by me, a PowerPoint presentation for the text, or a short video. One unit will also include the article listed in the Required Texts section above. You will have to complete a written assignment for six units. For each unit you will take an online exam, accessed through the Exam tool. You will also be expected to contribute to online discussions at least twice during the course, by using the Discussion tool. Due dates for all exams and assignments are given in the course outline below. In addition, you can find all of the exam and assignment due dates by clicking on the Calendar tool. THERE IS A LOT OF WORK TO DO IN THIS CLASS IN THREE WEEKS. So, follow the schedule in the Suggested Schedule tool, and you will be able to complete the course requirements on time and with a minimum of stress.

Written Assignments. You will have to complete a written assignment for six units (Units 2, 3, 4, 6, 8, & 11). These written assignments are worth 30 points, and for one of them you will be able to earn up to 15 extra credit points. You will also have to complete a written assignment for the liberal studies text, worth 60 points, due on the last day of class. For the varied written assignments, points will be awarded based on the substance of your responses to the questions' components, as well as on grammar, spelling, and punctuation. Each week, you will have to complete several assignments. You may submit each week's assignments at any time during the week, but they must be completed by 11:55pm on the due date specified. These assignments will not time out automatically, but two points will be subtracted for each day that any assignment is late. All assignments are located in the Assignments tool, and also within their respective units.

Exams. The exams will be administered over the course of the three week summer session. Each exam will be based on the varied course materials for each unit (textbook, article, supplemental materials). Each exam is worth 40 points. The multiple choice questions will be worth one point each, and any discussion questions will be worth between 5 and 10 points. There will be a time limit of 90 minutes for each exam. Once you get started on an exam, you cannot go back to it another time. Each student must complete the exams independently. Each week, you will have to take exams for several units. You may take each week's exams at any time during the week, but they must be completed by 11:55 p.m. on the ending date specified for that exam on the syllabus and course calendar. If you do not take an exam by the ending time, you will get a zero for that exam. Exams will time out AUTOMATICALLY, and you will not have access to them after the deadline.

Discussion. Each student is required to respond to the instructor at least twice and at least twice to a student peer. You can earn 20 points for each of these responses, and you can earn extra credit by participating in discussions more than twice. If you are on the borderline between grades and you have been participating regularly, you can earn the higher grade. Your discussion contributions should be written professionally, and should not include negative remarks about other students.

THERE IS A LOT OF WORK TO DO IN THIS COURSE IN THREE WEEKS. YOU SHOULD EXPECT TO SPEND ABOUT 4 TO 6 HOURS A DAY ON THIS COURSE. FOLLOW THE SCHEDULE IN THE SUGGESTED SCHEDULE TOOL.

Grades

Your final grade will be determined based on your scores for the varied course assignments. The following scale will be used to determine the final grade:

90%-100% = A
80%-89% = B
70%-79% = C
57%-69% = D
56% and below = F

General Policies

* The deadlines for exams and written assignments must be taken seriously and followed. There are only three weeks for this course, and the deadlines will enable you to cover the material in an organized way. THERE IS A LOT OF WORK TO DO IN THIS COURSE IN THREE WEEKS. YOU SHOULD EXPECT TO SPEND ABOUT 4 TO 6 HOURS A DAY ON THIS COURSE.

* Late submissions of exams or written assignments will be allowed ONLY in the case of a documented emergency (e.g., illness, death of a family member or friend), and ONLY if you have contacted me before the deadline to make arrangements.

* For all assignments, we will adhere to IUP's academic integrity policy, as spelled out in the Undergraduate Catalog. You must not share written assignments, turn in another's work as your own, or copy from the textbook or internet. You must take the exams alone. University procedures regarding plagiarism and academic violations will be followed. Written assignments will be checked using online plagiarism technology. Anyone found to be cheating will automatically receive an "F" for this course.

* Notify me immediately if you are experiencing technical problems, and I will see what I can do to help.

* Most, if not all, of our communication will take place electronically through the Mail tool. I consider mail between faculty and students to be professional communications. Therefore, I expect your mail messages to be written clearly, with correct punctuation, grammar, and spelling. I will ask you to rewrite messages that have mistakes beyond a typo or two. I

realize that you probably think I'm being unreasonable, and that you might be thinking, "It's just email". As an educator, I think that this is part of your professional preparation. If you send messages that are full of mistakes, potential employers will think you are lazy and/or uneducated.

<u>Course Outline</u>

<u>Unit One</u>   <u>Theoretical Foundations</u>
      Read the Introduction to Unit 1
      Read the Textbook, all of Chapter 1 and Chapter 2, pp. 59-77
      Read/watch the Supplemental Material
      Take Exam #1 by 5/20

<u>Unit Two</u>   <u>Infant Activities</u>
      Read the Introduction to Unit 2
      Read the Textbook, Chapter 3, pp. 106-117 and all of Chapter 4
      Complete Written Assignment #1 by 5/18
      Read/watch the Supplemental Material
      Take Exam #2 by 5/20

<u>Unit Three</u>   <u>Constructing Knowledge and Language Development</u>
      Read the Introduction to Unit 3
      Read the Textbook, Chapter 5
      Read/watch the Supplemental Material
      Complete Written Assignment #2 by 5/18
      Take Exam #3 by 5/20

<u>Unit Four</u>   <u>Emotional Development and Attachment</u>
      Read the Introduction to Unit 4
      Read the Textbook, Chapter 6
      Read/watch the Supplemental Material
      Complete Written Assignment #3 by 5/18
      Take Exam #4 by 5/20

<u>Unit Five</u>   <u>Cognitive Development in Early Childhood</u>
      Read the Introduction to Unit 5
      Read the Textbook, Chapter 7, pp. 227-253
      Read/watch the Supplemental Material
      Take Exam #5 by 5/27

<u>Unit Six</u>   <u>Emotional and Social Development in Early Childhood</u>
      Read the Introduction to Unit 6
      Read the Textbook, Chapter 8
      Read/watch the Supplemental Material
      Complete Written Assignment #4 by 5/25
      Take Exam #6 by 5/27

Unit Seven   Cognitive Development in Middle Childhood
>Read the Introduction to Unit 7
>Read the Textbook, Chapter 9, pp.298-327
>Read/watch the Supplemental Material
>Take Exam #7 by 5/27

Unit Eight   Social Relations and Gender Identity in Middle Childhood
>Read the Introduction to Unit 8
>Read the Textbook, Chapter 10, pp. 339-350
>Read/watch the Supplemental Material
>Complete Written Assignment #5 by 5/25
>Take Exam #8 by 5/27

Unit Nine   Formal Operational Thinking and Adolescent Cognition
>Read the Introduction to Unit 9
>Read the Textbook, Chapter 11
>Read/watch the Supplemental Material
>Complete Exam #9 by 5/27

Unit Ten   Identity Formation and Adolescent Issues
>Read the Introduction to Unit 10
>Read the Textbook, Chapter12
>Read/watch the Supplemental Material
>Voluntary Extra Credit Assignment, due by 6/1
>Take Exam #10 by 6/1

Unit Eleven   Emerging Adulthood and Adult Transitions
>Read the Introduction to Unit 11
>Read the article, "Emerging adulthood"
>Read Textbook, Chapter,14
>Answer article questions as Written Assignment #6 by 6/1
>Take Exam #11 by 6/1

Unit Twelve   Social Roles
>Read the Introduction to Unit 12
>Read Textbook, Chapter 16
>Read/watch the Supplemental Material
>Complete Exam #12 by 6/1

Unit Thirteen   Old Age
>Read the Introduction to Unit 13
>Read the Textbook, Chapter 17
>Read/watch the Supplemental Material
>Complete Exam #13 by 6/1

NOTE: Read the liberal studies text throughout the session. Complete the assignment by June 1st. Here is the assignment, which can also be found in the Assignment tool:

Assignment for *When I was Puerto Rican*, Due by 6/1

Two points will be taken off for every day that this assignment is late.

Write in full, grammatically correct sentences, and make sure you have spelled all words correctly. As with any reader, I need to be able to understand what you are saying. I will start taking off points if I cannot understand what you have written.

Written Assignment for *When I was Puerto Rican* (12 points each). Write approximately half a page to a page for each of the following:

1. Apply Ecological Systems Theory to the beginning and end of the novel. That means, describe Negi's microsystem, mesosystem, exosystem, and macrosystem at the beginning and end of the novel.

2. Give an example of one instance of each of the four child-rearing styles (i.e., authoritative, authoritarian, permissive, uninvolved).

3. Explain how Negi went through adolescent identity formation. Give an example of how she experienced all four identity statuses (i.e., identity diffusion, identity foreclosure, identity moratorium, identity achievement).

4. How did Negi develop? Explain and give examples of the factors involved.

5. Choose any other developmental concept and explain how it is relevant to the book.

Sample Online Lesson

Lesson for Unit 3

For this unit, the students are required to:

1. Read the introduction to the unit (see below)

2. Read chapter 5 in the Berk textbook, using the reading guide. This unit element achieves course objective 1 (learning about sequences of development for different domains of behavior) because it presents information about the sequence of cognitive development during infancy, as well as about the sequence of language development during the first few years of life. This unit element also achieves course objective 2 (becoming familiar with theories and research about development) because it explains Piaget's theory of cognitive development, as well as several theories of language development. This chapter also discusses research on cognitive and language development. This unit element also achieves course objective 3 (gaining an understanding of the cultural nature of human development) by presenting information about how cultural processes are involved in cognitive development and language development during infancy. The textbook reading guide can be found in Attachment A.

3. Read the supplemental materials (written by me) on Piaget's theory and language development (see below). This unit element also achieves objectives 1, 2, and 3 by providing more information about Piaget's theory and about the sequence of cognitive development during infancy, as well as about how culture is implicated in infant development.

4. Complete written assignment #2 (see below). This assignment achieves objective 4 (learning to present knowledge, ideas, and thinking in a focused and organized way) by giving students the opportunity to express their knowledge about development in writing.

5. Take exam #3 (see below)

6. Watch a short video clip that demonstrates a key point from Piaget's theory, i.e., object permanence.

Introduction to Unit 3

Welcome to Unit 3. For this unit, you will learn about cognitive development during infancy and about the beginnings of language development. For this unit, you will have to:

1. Read chapter 5 in the Berk textbook. Use the study guide as you read because it will help you to organize your understanding of the reading.
2. Read the supplemental material on Piaget's theory.
3. Read the supplemental material on language development.
4. Watch a short video on Piaget's theory.
5. Complete Written Assignment #2
6. Take Exam 3; deadline: 5/20

Supplemental Lecture on Piaget's Theory

Thus far, the course has focused on some basic theoretical issues in developmental psychology. In addition, we now know something about what infants can do when they are born. These basic forms of behavior provide the foundation for the development that begins to take place during the first months of life. Now, we can begin to learn about some specific developmental changes that take place for some specific domains of development during the first two years of life. This supplemental reading will be about cognitive development during infancy. These domains of development are complicated (even during infancy), and so this supplemental reading presents information in other words than used in the textbook.

We can begin by organizing the material around our basic developmental questions. First, we must ask, what is the domain of development? For now, we are addressing the domain of cognition. In psychology, cognition refers generally to thinking processes. In other words, we will be addressing how infants think, understand, know, and learn about the world. We can use these cognitive terms interchangeably. More specifically, we will be learning about a particular theory of cognitive development, namely, Piaget's theory of cognitive development.

Jean Piaget was a Swiss developmental psychologist who lived from 1890-1980. Even though he has been dead for a long time now, he remains one of the most influential developmental psychologists of the 20th century, and I think he will be discussed in developmental psychology classes for generations to come. Piaget offered a very complex and comprehensive theory of cognition and cognitive development that spans the lifespan. For this unit, we will learn about some basic aspects of his theory, and we will also learn about Piaget's ideas about the sequence of cognitive development during infancy. In future units, we will come back to Piaget's theory to learn about his ideas about cognitive development during childhood, adolescence, and adulthood.

According to Piaget, human beings are born with some ways of making at least some sense of the world. Of course, newborns do not understand the world in a very complex ways. But, those basic perceptual abilities, discussed in Unit 2 (being able to see, hear, touch, smell, and taste), enable infants to start understanding and learning about the world right from the beginning. We come to the world, ready to make sense of it!

Piaget was one of the first psychologists who tried to understand the world from the child's point of view. He wanted to find out, what do children know about the world, how do children understand the world, how do children think about the world. So, he spent a lot of time observing children, including his own three children when they were babies. For example, imagine you see a child building a tower out of blocks. The child is carefully placing one block on top of the other, and building a very impressive tower that doesn't fall down! Piaget would want to know, how does that child understand the world in order to build the tower, what does that child know about the world in order to build that tower? Well, let's stop and think about that for a minute. In order to build a tower out of blocks, you need to know something about gravity because you have to realize that the blocks have to be centered as they are placed, or else gravity will bring them down. You have to understand something about the physics of how objects relate to

each other in space. For example, you have to understand that the blocks have to be placed gently, or else the tower will be knocked over.

Now, maybe you're thinking, "Gravity? Physics? What do young children know about that?" Of course, young children who play with blocks don't know specifically about concepts such as gravity. But, according to Piaget, they must have SOME kind of understanding in order to build their towers.

And so, Piaget distinguished between two types of knowledge, conceptual knowledge and knowledge in action. Conceptual knowledge is when you understand something about the world in terms of abstract concepts. For example, we all can understand the abstract concept of motherhood, or the concept of gravity, or the concept of blocks. On the other hand, there is knowledge in action, which means that we understand something while we are acting. So, a child knows how to build with blocks while actually building. Children can adjust their actions while they are building, if they feel the tower beginning to wobble. In general then, infants understand the world in terms of knowledge in action. Even as adults, we still rely on knowledge in action. Think about how some of your daily activities involve knowledge in action. How about eating?

Piaget was interested in learning more about infants' knowledge in action, and also with identifying the changes that children go through to get from this early kind of cognition to what he thought was the ultimate goal of cognitive development. According to Piaget, the ultimate goal of cognitive development is abstract and logical thinking. (Remember, what is the goal of development, is another basic developmental question.) This ultimate goal emerges during adolescence, so we have a long way to go developmentally speaking. For now, we will continue talking about some major points in Piaget's overall theory of cognitive development, and then we will also learn about the sequence of cognitive development during infancy, according to Piaget.

According to Piaget, people think with schemes, and thus, he defined schemes as the basic unit of knowledge. More specifically, schemes are defined as systematic, organized frameworks for thinking about the world, for understanding the world, or for knowing about the world. Going back to the point made above that infants understand the world in terms of knowledge in action, we can now say that infants' schemes for the world are action based. They think about the world by grasping things, by sucking on things, by listening to things, by seeing things. Have you ever noticed how babies like to put things in their mouths? Piaget would say that they are sucking on objects to learn something about them, to understand them. Think about it, you can look at and touch an object to try to understand it. You could also put it in your mouth because that would provide you with more information about the object. Of course, as adults we don't do that (at least not in public), but for babies, sucking is a way to think about the world.

More technically, Piaget referred to these kinds of action schemes as sensorimotor schemes. Sensorimotor schemes consist of two elements. They consist of motor acts, or some kind of direct physical activity (such as sucking, grasping, looking). They also consist of the sensory feedback that one gets from the different motor acts. When you look at something, or touch something, or bang something, you get different kinds of sensory feedback. Imagine a baby playing with a rattle. For us, as adults, we understand the concept of a rattle, but babies do not understand the world in terms of abstract concepts. For the baby, a rattle is a "graspable", a "shakable", a "bangable", a

"suckable", a "hearable", and a "seeable". The baby knows and understands the object through his/her sensorimotor schemes.

As infants (and later children, adolescents, and adults) interact with the world, they can engage in the process of building up, or constructing, more complex schemes. Piaget called the process of constructing more complex schemes, "adaptation." Stop for a moment, and think about why it is adaptive to construct more complex schemes for understanding the world. It is fine for infants to think about the world in terms of sensorimotor schemes, but we eventually expect them to think about the world in more complex ways. The world is a complex place, and the more complex our understanding is, the better able we are to deal with life. So, throughout development, it is important to always know more, learn more, and understand more!

More specifically, according to Piaget, adaptation involves two interrelated processes, which he called assimilation and accommodation. Imagine a baby playing with a rattle. The baby has gotten to know the rattle very well as a graspable, shakable, bangable, suckable, and hearable. One day, maybe the baby's grandmother comes to visit, and brings another rattle that looks a little different from the one the baby already has. What does the baby do in order to understand the new object? The baby goes through assimilation, which means that the baby applies his/her current schemes to the new rattle. The baby applies current schemes in order to assimilate, or incorporate, the new object into his/her overall understanding of the world. But this is a new rattle, so the original rattle schemes do not fit perfectly. The new rattle gives feedback (as if saying, you have to grasp and shake me differently), and the baby can then adjust or accommodate his/her schemes in order to fully incorporate the new object into his/her understanding of the world. By going through assimilation and accommodation, the baby now has more complex knowledge of the world—he/she can understand and deal with both rattles now.

Can you think of some examples of assimilation and accommodation in your lives? According to Piaget's theory, assimilation and accommodation take place throughout the lifespan, and make cognitive development happen throughout the lifespan. How about if you tried to learn how to ride a unicycle. What would you do? You would apply your current cycling schemes, or what you know about riding a bicycle. But a unicycle is somewhat different from a bicycle, so those current schemes won't fit perfectly. You will then accommodate your cycling schemes in order to incorporate unicycle riding into your understanding of the world. What is another example?

These ideas about assimilation and accommodation address the issue of how cognitive development happens, according to Piaget. We can see that the individual (in this case, the baby) has to actively apply current schemes and try to make sense of the world. We can also think about how the individual may be interacting with others who can give feedback about the world. For the above example, we can imagine the grandmother helping the baby to play with the new rattle. And we must remember that all of this is taking place in a cultural world. For example, rattles are cultural objects, and the baby has to learn about culturally appropriate ways of dealing with different objects.

This adaptation process enables infants to start developing cognitively as soon as they are born. Based on his observations of his own three infants, Piaget pointed out that babies experience a lot of cognitive development during infancy. According to Piaget, the first stage of cognitive development, which spans the infancy years, consists of six

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+ additional pages

sub-stages. The fist stage of cognitive development within Piaget's theory is called the Sensorimotor Stage. Given that infants understand the world in terms of sensorimotor schemes, it makes sense to call this first infancy cognition stage, the sensorimotor stage. Now we can talk about the six sub-stages of this stage.

Sensorimotor Stage, Sub-Stage 1: Reflex Acts (birth to 1 month)

Human beings are born into this sub-stage. It consists of the reflex activities and perceptual abilities discussed in Unit 2. These reflex acts enable infants to start making some sense of the world right from the beginning. Piaget was particularly interested in reflex acts such as grasping, sucking, hearing, and seeing.

Sensorimotor Stage, Sub-Stage 2: Primary Circular Reactions (1 to 4 months)

During this substage, infants start to initiate the basic acts of sub-stage one on their own, so they are no longer purely reflexive. For example a baby will now make sucking movements, even if no one has specifically put anything into his/her mouth. In addition, infants start to repeat these basic acts on their own. Whenever you see the word "circular" in Piaget's theory, it means that some act is being repeated. Have you ever noticed how babies and children seem to like to do things over and over? According to Piaget, that helps them to learn about the world. Finally, during this sub-stage infants are also coordinating basic acts on their own. For example, they can grasp and suck on something at the same time.

Sensorimotor Stage, Sub-Stage 3: Secondary Circular Reactions (4 to 8 months)

During this sub-stage, infants now repeat combinations of schemes in order to produce an interesting result. For example, imagine a baby sitting in a high chair, and her father gives her a bowl of Cheerios. The baby is engaging in her usual sensorimotor activities, kicking her feet and waving her arms. What happens? The Cheerios end up on the floor! From the baby's perspective, that's a really interesting result. Liquid sloshes around, it makes noise, and someone comes running to find out what happened. A few minutes later, it all happens all over again. Eventually, the child will do this on purpose in order to achieve the interesting result. The child has made a connection between her own actions and an interesting result in the world! It's as if she's thinking, "I caused this to happen! I'll do it over and over." So, babies are not trying to be annoying when they do these sorts of things. It's a major cognitive achievement to understand that there is a connection between your own actions and a result in the world.

Sensorimotor Stage, Sub-Stage 4: Coordination of Secondary Schemes (8-12 months)

During this sub-stage, babies repeat combinations of schemes in new situations to Reproduce an earlier interesting result. In order to do that, they have to REMEMBER the earlier interesting result. Thus, it is during this sub-stage that we can see some evidence for the beginning of memory—a very important cognitive process. More specifically, according to Piaget, this early memory comes in the form of understanding object permanence. Understanding object permanence means that now infants can understand that objects exist (or are permanent) even though they are not accessible to direct physical activity. For example, all of you know that objects in your cars exist, even though you can't see them, feel them, or hear them right now. Have you ever noticed that younger

infants will not get upset if you take something away from them? They don't even seem to notice. That's because they can't think about an object unless they use their sensorimotor schemes on it. So, during this sub-stage, infants are moving away from pure sensorimotor cognition. According to Piaget, they now have mental images of objects, and can use those mental images to think about and remember things that are not accessible to their direct physical activities.

Sensorimotor Stage, Sub-Stage 5: Tertiary Circular Reactions (12-18 months)
        During this sub-stage, infants and young children solve their cognitive problems through trial and error. That means that they think of one possible solution and try it out. If that doesn't work, they think of another solution and try it out. If that doesn't work, they think of another solution and try it out. Eventually they hit on a solution that works. Remember, we are talking about one-year-olds here, so their cognitive problems are not the kinds of problems that adults deal with. In one of his books, Piaget gives an example of one of his daughters who was trying to solve a cognitive problem. She was sitting in her crib, and a big (but not heavy) book was lying on the floor next to the crib. She was trying to get the book into the crib with her. As you know, cribs have bars, and to get a big book into a crib, you have to turn the book in a specific way in order for it to fit through the bars. Piaget's daughter turned the book one way, and it didn't fit. She turned in another way, and it didn't fit. She tried yet another way. Finally, she turned the book just so, and it fit through the bars. Can you think of a toy that could help children go through trial and error?

Sensorimotor Stage, Sub-Stage 6: The Beginning of Symbolic Thought (18-24 months)
        This sub-stage actually marks the transition into the next full stage in Piaget's theory, but it is also discussed as part of the end of the sensorimotor stage. During this sub-stage, children can now solve their cognitive problems through mental activity. That means that they can now look at a situation and mentally think of a solution, without having to go through the trial and error of direct physical activity (as they did in sub-stage 5). Now, Piaget's daughter could get the book through the crib bars by looking at the book and the bars, and thinking of a solution purely mentally. According to Piaget, when a person can do mentally what once required direct physical activity, then internalization has occurred. In other words, the person can do something internally.

To review all of this, think about Piaget's theory and the sensorimotor stage in terms of our basic developmental questions. You can earn extra credit points by answering the following questions in terms of Piaget's theory, thus far:
      1. What is the domain of development?
      2. What is the ultimate goal of development?
      3. What is the sequence of development?

Supplemental Lecture on Language Development

This unit element provides a wider context within which students can understand language development. Thus, it will facilitate their understanding of the textbook's discussion of the sequence of language development (Objective 1). This supplemental lecture also provides more information about theories of language development (Objective 2), and it includes a consideration of cultural issues (Objective 3).

When thinking about language development, it is helpful to think about how complex language is. Thus, when infants and young children are first learning a language, they are learning about all kinds of complex parts of language. More specifically, they are learning about the following parts of language:

Phonology - Phonology refers to the sound system of a language. Every language has its own particular sound system. Think about how the sound system of English is different from the foreign language you are learning (or have learned). When children are learning a language, one thing they are learning is the sound system of a language.

Morphology – Morphology refers to the units of meaning in a language. Usually, a unit of meaning is a word. A word carries meaning. In some languages, such as English, single sounds that are not full-fledged words can be units of meaning. Can you think of any? How about, that "ed" sound at the end of a verb? What does it mean? It means past tense. So, "ed" carries meaning. When children are learning a language they have to learn what words and sounds mean.

Syntax/Grammar – Syntax or grammar refers to a language's system of rules for combining units of meaning. Every language has grammatical rules that MUST be followed in order for people to understand each other. Even with these rules, language is infinitely creative, and there is no limit to how we can combine words in new ways to create new ideas and meanings. Even children use language creatively, and actively come up with their own ideas.

Semantics – Semantics refers to the complex meaning that is produced when we combine single units of meaning according to rules of syntax/grammar of a particular language. Think about how every word has its own meaning, and then when you combine words, you get a more complex meaning.

Pragmatics – Pragmatics refers to how we use language in social situations, and it includes the rules of conversation that people in different cultures may use. For example, in the US, we tend to be pretty strict about turn-taking. Everyone gets a turn to speak, and you're not supposed to interrupt a person who is speaking; you have to wait your turn. In some Spanish-speaking cultures, the rules of conversation are different, and people seem to talk at the same time. They are not so concerned with taking turns, one at a time, but everyone understands each other, and they don't feel that they are being interrupted. As far as how we use language in social situations goes, think about the social function of the phrase "Yeah, right." Does it mean that you agree with the person when you say that to someone? No! It means you disagree. So, the social function of "Yeah, right" is very different from the literal meaning of the words.

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The textbook discusses the major theories of language development that have been offered, from the behaviorists, to Chomsky, to the interactionists. I just want to add a little about Chomsky's theory and the interactionist perspective, which together are currently being used by developmentalists to explain how language development happens. More specifically, we can think about these two theories in terms of how individual, social, and cultural factors all make language development happen. Remember, throughout this course, we are thinking about how behavior and development always involve individual, social, and cultural factors.

Chomsky's theory emphasizes the point that human beings are naturally predisposed to learn language because our brains our wired with a "Language Acquisition Device" or LAD. Upon exposure to a particular language, the LAD becomes programmed according to the rules of syntax/grammar for that language. By focusing on syntax/grammar, Chomsky's theory actually includes phonology, morphology, and semantics. If a child is combining words according to a particular language's rules of syntax/grammar, then the child is saying words, which requires phonology and morphology. Also, combining words results in the production of more complex meanings, and so semantics are involved. The only part of language that Chomsky's theory does not adequately include is pragmatics.

The interactionist theory provides a way to explain how children learn the pragmatics of a particular language within a particular culture. According to the interactionist theory, in order to learn the pragmatics of language, children need to be involved in social interactions and cultural practices with other people in their families and communities. By interacting with others, children's language development is supported socially. So, in addition to a Language Acquisition Device (LAD), children also have a Language Acquisition Support System (LASS) that enables them to learn how to use language in social situations. Think about the expression "Yeah, right". How would a person learn the meaning of that expression? They wouldn't find it in a grammar book, but by interacting with Americans, they would learn its meaning.

By putting these two theories together, we can explain some of the complexities of how language development happens, even though children do no spend a lot of time and effort in language classes learning a first language. We can also think about how individual, social, and cultural factors are involved. As far as individual factors go, children are actively working, as individuals, to use language---to speak and to understand what others say. In addition, the idea of a LAD suggests that there are individual, human biological predispositions to learn language. The interactionist theory emphasizes social factors and shows how interacting with other people is necessary for children to learn language. Cultural factors are also involved because languages differ across cultures, and the pragmatics of language may be different in different in different cultures.

Written Assignment #2

You have spent a lot of time learning about the sensorimotor stage, which is the first stage in Piaget's theory of cognitive development. Now, it is time for you to think about how the sub-stages of the sensorimotor stage are relevant to real life situations. Imagine you have to spend some time with some infants at each of the sub-stages, and you are trying to figure out what to do with them. Explain what kind of toy or game would make sense to play with infants at each of the sub-stages. You can go to a toy store, or find a toy/game website, to find specific games. Or, you can talk about any toys and games that you are familiar with. In about two pages, explain why it would make sense to use a particular toy or game at each sub-stage of the sensorimotor stage. For example, for sub-stage 4 you could explain why playing some form of peek-a-boo might be particularly interesting for a baby.

Exam 3
The exam will consist of multiple choice questions based on the textbook and the supplemental materials.

Sample Questions:

In Piaget's theory of cognitive development, infants and toddlers _____.
   a. use mental representations to organize their cognition
   b. do not yet construct schemes
   c. assimilate more than they accommodate
   d. "think" with their eyes, ears, and hands

In Piaget's theory, adaptation refers to _____.
   a. the back and forth communication between parents and children
   b. the ability to think symbolically
   c. a steady, comfortable cognitive state
   d. the process of constructing ever more complex schemes through interaction with the environment

In Piaget's theory, the process of _____ involves two complementary activities: _____ and _____.
   a. equilibration; assimilation; accommodation
   b. equilibration; adaptation; organization
   c. adaptation; assimilation; accommodation
   d. adaptation; equilibration; organization

Baby Susie is twisting and turning triangles, circles, and squares to fit them into her shape sorter. According to Piaget, this kind of behavior would best be described as a _____ circular reaction.
   a. reflexive
   b. primary
   c. secondary
   d. tertiary

Two-year-old Abigail calls the toaster a "breadbaker." Abigail's use of this original term shows that _____ alone cannot fully explain language development.
   a. language acquisition device
   b. reinforcement and imitation
   c. a speech analyzing brain mechanism
   d. built-in universal grammar

According to Chomsky, the LAD _____.
   a. involves language acquisition drills or lessons for expanding children's vocabularies
   b. refers to linguistic tutoring by which parents teach children grammatical rules

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c. is made up of computer programs that attempt to generate rules of syntax/grammar
d. refers to the brain functioning that permits young children to understand and speak in a rule-oriented fashion.

Social interactionist theories of language development claim that _____.
a. language competence grows out of general cognitive competencies rather than specific competencies for language
b. the role of human biological predispositions and environmental influences
c. an inborn universal grammar
d. the child as a passive communicative partner

One-year-old Sammy uses the word "train" to refer only to his favorite toy train. This is an example of _____
a. underextension
b. overextension
c. telegraphic speech
d. child-directed speech