

Psychology Assessment 2009-1010

The Psychology Department assessment committee completed two projects this year. The first project was the development of an interactive assessment wiki for the 2009 Northwest Accreditation visit. The second project was an assessment of student outcomes for the developmental psychology classes, which are one of the core classes of the psychology department undergraduate curriculum.

A. Northwest Accreditation

A request was made of the department to develop an assessment web page in anticipation of the Fall 2009 Northwest Accreditation interim review. The resulting interactive assessment wiki (<http://sakai.weber.edu/portal>) contains the student outcomes approved by the department in Spring 2009; an analysis of how these outcomes apply to each of the General Education and Core Courses in the psychology curriculum; a listing of these General Educational and Core courses, complete with syllabi, assessments, artifacts; an account of how each assessment relates to the student outcomes; and an evaluation of the artifacts.

Student Outcomes Statement: The Psychology Department's Student Outcomes statement was approved by the Department in Spring 2008. The statement is closely aligned to the American Psychological Association (2007) guidelines for student outcomes of an undergraduate psychology curriculum. Four general student outcomes are listed below:

1. **Knowledge:** Students will understand psychology as a scientific discipline. Essential to this, students will understand a core set of statistical and methodological knowledge regarding how psychologists critically evaluate, creatively test, and scientifically defend psychological claims. They will also understand a core set of content knowledge addressing the biological, cognitive/behavioral, social/personality, and developmental aspects of behavior.
2. **Application:** Students will be able to critically apply psychological principles and research to explain social issues, inform public policy, solve problems, understand themselves, and achieve career goals.
3. **Values/Ethics:** Students will share key values adopted by psychologists, which include (but are not limited to) skepticism and intellectual curiosity, tolerance of ambiguity, respect for human diversity, appreciation of their civic, social, and global responsibilities, and humility regarding the limits of their psychological knowledge and skills. Students will also grasp the spirit of the APA Code of Ethics, follow its guidelines, and recognize the necessity of ethical behavior in all aspects of the science and practice of psychology.
4. **Communication:** Students will exhibit skills to professionally communicate their understanding of terms, concepts, research, and theories of the discipline to others via written and oral formats. Students will also have interpersonal and collaborative skills necessary to effectively work in groups with others who hold diverse opinions, beliefs, and attitudes.

Student Outcomes Grid: A grid was constructed by the faculty members rating each of the General Education and Core Methodological and Content courses they teach according to each of the student outcome goals on a scale from 0 (does not apply) to 4 (primary course goal). A review of the grid below makes clear that most courses emphasize knowledge and application followed by communication and ethics/values.

CLASSES		Knowledge	Application	Values/Ethics	Communication
Psy 1010 (Gen Ed)	Introductory Psych	3.38	2.56	2.25	1.75
Psy 3600	Psychological Statistics	3.75	3.25	2.25	2.50
Psy 3610	Research Methods	4.00	4.00	4.00	4.00
Psy 2730	Bio-psychology	4.00	2.50	2.50	3.00
Psy 3010	Abnormal Psychology	2.75	2.75	3.00	2.25
Psy 3000 or	Child Psychology	4.00	2.00	1.00	1.00
Psy 3140	Adolescent Psych	3.50	3.50	2.50	2.50
Psy 3500 or	Cognition	4.00	3.50	2.50	3.00
Psy 3250	Conditioning and Learning	4.00	4.00	3.50	3.00
Psy 3430 or	Personality Psychology	2.25	4.00	2.00	3.00
Psy 3460	Social Psychology	4.00	4.00	4.00	4.00
Psy 2000 (Gen Ed)	Interpersonal Communication	3.00	3.50	2.00	2.50

Interactive Assessment Wiki: Each faculty was asked to account for the specific connections between the student outcomes and their actual course assessments. In particular they were asked to list all the assessments (with examples when available), rubrics (explicit summaries of the criteria for assessing student work), artifacts (actual examples of student work), and grades (where relevant) for each of two courses from the set of Core Methodological and Content Psychology courses. The faculty syllabus is also available for the specific course presented as the faculty grid ratings and their narrative account for how each class assessment taps the student outcomes.

We invite reviewers to peruse the wiki site (ask Aubrey Jenkins at AubreyJenkins@weber.edu or 801 626-6247 for access) and assess for themselves the faculty thoughtfulness in considering the higher-level goals in each and every classroom assessment they employ. We only ask that the artifacts and assessments remain confidential and are the property of the faculty who has shared them.

B. Students' Concept of Development

The American Psychological Association (2007) undergraduate curriculum guidelines suggest that students appreciate the developmental perspective on human nature¹. The present assessment explores whether the Psychology Department's core courses as *Child Psychology* or *Adolescent Psychology* effectively teach such a perspective. The two psychology courses require only Introductory Psychology as a prerequisite, but many WSU students additionally take the Child and Family Studies *Human Development* course, which is listed as a Social Science General Education offering. These courses are not only good academic preparation for undergraduate students, but also good training for future parents and professionals working with children.

In a recent review, McDevitt and Ormrod (2008) articulate the importance of college-level human development classes for students to overcome misunderstandings of the concept of development. They propose that an effective undergraduate class in Human Development may promote a change in the concept of development from one as a product of stable genetic or environment forces to an interaction between genetic and environmental factors. Sameroff and Feil (1985) developed the Concept of Development Questionnaire (CODQ) to assess the complexity of parents' reasoning about development from an immediate "here and now" undifferentiated connection to their child to an abstract understanding of the complex interaction of factors underlying child development.

The CODQ was used in the present assessment of Psychology students' concept of development. The CODQ is a 20-item questionnaire, with each item requesting that participants read a statement and respond on a 4 point Likert scale, from 1 (strongly disagree) to 4 (strongly agree). Ten statements asserted less complex *categorical* beliefs about development that were based on simple, single, stereotyped understandings of children and their behavior. The other 10 statements asserted more complex *perspectivistic-compensating* beliefs that were reflective and flexible, based on an interactive understanding of development. Performance on the questionnaire resulted in a categorical score (c score) based on the mean for the 10 categorical items, a perspectivistic-compensating score (p-c score) based on the mean for the 10 perspectivistic-compensating items, and a total score (total score) based on the amount of agreement to the perspectivistic-compensating items and disagreement to the categorical items.

The 20 item CODQ was shown to have adequate reliability ($\alpha = .82$) (Sameroff & Feil, 1985) and validity. The validity of the scale as an assessment of *students'* knowledge of development was demonstrated by Guzell and Stringer (2004). Female college students in pre- and early childhood teacher preparation courses completed the CODQ. Total CODQ total scores

¹ From the APA guidelines (p. 12):

Demonstrate knowledge and understanding representing appropriate breadth and depth in selected content areas of psychology:

a. *Theory and research representing each of the following four general domains:*

(4) Developmental changes in behavior and mental processes across the life span

was entered into a regression analysis and predicted by participants' a) SES level, measured by Hollingshead four factor index; b) paid work with children, measured in months of full-time work; c) completed academic courses addressing child growth, development, and care, measured in frequency of classes; and d) supervised laboratory courses, measure in frequency of classes. The results revealed that only academic and laboratory courses predicted CODQ total scores. They concluded that academic background and not paid experiences promote the complexity of students' understanding of child development.

To explore Psychology Students' concept of development, students enrolled in an entry level Human Development class in Psychology (PSY 3000: Child Psychology or PSY 3140: Adolescent Psychology) and in Child and Family Studies (CFS 1500: Human Development) were given the CODQ. A series of demographic questions were also posed to students assessing their academic and experiential background with children.

Method

Participants

The participants of this study were 208 students who were enrolled in introductory Human Development classes in the Psychology and Child and Family departments at Weber State University. The students were taken from three Adolescent and Child Development Psychology classes (40%) and four Human Development and Child Development CHF classes (60%). Of the students sampled, 75 % were female, 25 % were male, and 30 % were freshmen, 29 % were sophomore, 25 % were juniors, and 16 % were seniors and above. The average age of the students was 22.58 years with a standard deviation of 6.23 years. The range of the student's ages was 18 years to 55 years. Students completed the study in approximately the 8th week of class.

Demographics. Participants completed a demographics portion on the questionnaire, which consisted of 14 questions. The questions were: department their class was in, age, sex, year in school, their major, their minor, number of children, if they have siblings, number of siblings, personal time spent with children, job time spent with children, classes in child development or parenting, and interest in child development. The questions were answered using a four-point Likert scale. A new nominally scored *Experience with Children* variable was created which was defined as having a sibling or a child and spending a high amount of personal or professional time with children. A second new nominally scored *Previous Human Development Classes* variable was created which was defined as having previously taken no or 1 other class addressing children or parents or more than 2 classes.

CODQ. The Concept of Development Questionnaire consists of 20-questions assessing a participant's level of complexity with reasoning about the behavior of children. The 20 items are split up into two groups. Ten questions are from the categorical view and the other ten are from the perspective-compensating view. Categorical items assert one cause that explains the stated behavior. An example CODQ c-item statement is: "Boy babies are less affectionate than girl babies" (Sameroff & Feil, 1985). Perspectivistic items have a more complex appraisal of a child's behavior. An example CODQ p-c item statement is, "Parents change in response to their children" (Sameroff & Feil, 1985). The total score was determined by adding the average

agreement on p-c items with the students' average disagreement on the c items (categorical items were reverse-coded).

The questions on the CODQ were split up into five blocks with four questions (two categorical and two perspective-compensating) in each block. The question types were ordered differently in each block to randomize them to increase validity. The instructions were presented as described below with slight variation for half the students².

Listed below are a number of statements. Each statement represents an opinion regarding some aspect of child development. Evaluate each statement from your own personal perspective. You may agree with some of these statements and disagree with other of them; there are no correct or incorrect answers. Read each statement carefully and indicate the extent to which you agree or disagree by checking the appropriate box.

Procedure

Student researchers administered the questionnaires to the participants in their classes. Participants signed consent forms and filled out the questionnaire with the demographic and CODQ questions. Students were reminded of the importance of reading the instructions before completing the questionnaire.

Results

A total score was computed for each participant and compared to an overall average of 2.5, the mid-point of the 4-point scale. A score below 2.5 would suggest an overall acceptance of categorical statements and rejection of perspectivistic-compensating ones. In contrast a score above 2.5 would reflect the opposite: An overall acceptance of p-c statements and rejection of c ones. The average CODQ total score for all participants was significantly above 2.5 ($M = 3.07$, $SD = .20$), $t(202) = 40.98$, $p < .001$.

A 2 (Previous Human Development Classes) by 2 (Department) ANVOA on CODQ total score was computed with Age, Sex, Year, Interest in Children, and Experience with Children serving as covariates. There was a Previous HD Class effect, with students having more than one human development class ($M = 3.12$) having higher total CODQ scores than those have only one class ($M = 3.04$), $F(1,184) = 5.01$, $p < .05$. There was also a trend for Psychology students ($M = 3.11$) to have higher total CODQ scores than Child and Family Studies students ($M = 3.05$), $F(1,184) = 3.75$, $p = .054$.

² The study manipulated the perspective (Self or Professor) adopted by participants when they responded to the statements. The instructions directed participants to evaluate statements from the students' own perspective or from the perspective of their professor. There was an effect of perspective, with higher total CODQ scores in Professor than Self perspective but only for Child and Family Studies students. The Perspective effect confirms previous work by Amsel et al. (2009) who studied Psychology Students beliefs about psychology as a science.

Discussion

The present study used the CODQ to assess the complexity of Psychology and Child and Family students' understanding of the concept of development. Overall there is good evidence that all students have a sophisticated understanding of the concept of development by the 8th week of classes. As expected more Human Developmental classes translated into higher CODQ scores, replicating the findings of Guzell and Stringer (2004). The central finding then is that the APA guidelines, adopted by Psychology, for students to have a complex understanding human development, seem to have been realized. That is, the department course offerings are sufficient to ensure students acquire a complex understanding of development.

What is less clear in the data is the extent to which the courses themselves are causing a conceptual change in the complexity of students' understanding of development. Although more human developmental classes are associated with more complex understanding of development, students may well be entering into their first class with a complex understanding. We have designed a series of follow-up studies to assess the causal role of Human Development classes on the complex of students' understanding of development. We have assessed the CODQ scores of Introductory Psychology students who have had no Human Development classes and are exploring students CODQ performance at the beginning and the end of the human development classes.

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