

## **Assessment Plan**

### **Undergraduate Psychology Major Illinois State University**

**(updated 9/11/04)**

The charge to develop a method to assess student outcomes from completion of a psychology major was addressed in the Psychology Department by a three-year process that involved the entire faculty. This process is documented as six steps. The first step was to develop and modify goals for the psychology major. The second was to determine where in the major each goal was addressed. The third was to monitor the delivery of the courses to insure that goals addressed matched the goals that were established. The fourth step was to evaluate the effectiveness of the major in meeting goals we had established. The fifth step involved making changes in the major to address weaknesses that were identified through implementation of the assessment plan. The final step involved identification of quality indicators for the major, formation of a plan for on-going assessment of quality indicators, and collection of data providing results on achieving quality indicators for the psychology major.

#### **Step I: Development of the goals and objectives of the psychology major**

The first step in the development of plan to assess the psychology major was to establish the goals we had for students who graduated from ISU with a major in psychology. A committee was formed to provide recommendations to the faculty. Concurrently, a committee of the Education Directorate of the American Psychology Association had been working to develop a set of Goals and Objectives for the undergraduate psychology major. Upon the recommendation of the departmental assessment committee, the department voted to adopt the current draft of the Goals and Objectives for the psychology major developed by the Education Directorate.

Adoption of these Goals and Objectives, and the discussions in committees and in faculty meetings, was a significant event for the major and the department. It marks the first time in 30 years that the faculty, in its entirety, has examined the major as a whole and formulated goals for students graduating with a major. It also is the first time that these goals explicitly reflect an external discipline-wide consensus.

The goals and objectives that were adopted are below. A student graduating from ISU with a major in psychology should be able to demonstrate proficiency in the following areas:

#### *1 Theory and Content of Psychology*

- 1.1 Use the concepts, language, and major theories of the discipline
- 1.2 Explain the major perspectives of psychology: behavioral, biological, cognitive, humanistic, evolutionary, psychodynamic, and sociocultural

- 1.3 Describe psychology in relation to other disciplines or interdisciplinary field study
- 1.4 Demonstrate knowledge and understanding in theory and research in learning and cognition, individual differences, biological bases of behavior, and developmental changes; the history of psychology; overarching themes in psychology; applications of psychology; APA Code of Ethics

## 2. *Research Methods*

- 2.1 Explain different research methods used by psychologists
- 2.2 Evaluate the appropriateness of conclusions presented in psychological research
- 2.3 Design basic studies to address psychological questions using qualitative and quantitative research methods
- 2.4 Execute appropriate ethical safeguards in the treatment of human and nonhuman participants in the design, data collection, interpretation, and reporting of psychological research
- 2.5 Generalize research results appropriately

## 3. *Application of Psychology*

- 3.1 Describe the major applied areas of psychology (e.g., clinical, industrial, school, forensic, human factors, health, etc.)
- 3.2 Explain how psychological theories and principles relate to everyday life
- 3.3 Articulate how psychological principles can be applied to public policy issues
- 3.4 Generate socioculturally appropriate solutions to problems or issues encountered in real-world settings
- 3.5 Recognize that ethically complex situations can develop in applications of psychology and pursue resolutions of ethical conflicts that reflect personal integrity
- 3.6 Transfer knowledge from classroom learning and research findings to applied situations

#### 4. *Values in Psychology*

- 4.1 Recognize the necessity for ethical behavior in all aspects of the science and practice of psychology
- 4.2 Demonstrate reasonable skepticism and intellectual curiosity by asking questions about causes of behavior
- 4.3 Seek scientific evidence to evaluate behavioral claims
- 4.4 Adopt psychological explanations as a foundation for understanding and problem solving
- 4.5 Tolerate ambiguity and assume behavioral explanations will be complex
- 4.6 Recognize and respect sociocultural diversity
- 4.7 Engage actively in service learning activities to promote health and human welfare in specific contexts (e.g., family, local community, state, national, and international settings)

#### 5. *Career Planning and Development*

- 5.1 Apply knowledge of psychology (e.g., decision strategies, life span processes, types of psychological careers) to formulating career choices
- 5.2 Distinguish types of academic experience and performance that will facilitate entry into the work force, post-baccalaureate education, or both
- 5.3 Define preferred career paths based on accurate self-assessment of abilities, achievement, motivation, and work habits
- 5.4 Develop skills and experiences relevant to achieving selected
- 5.5 Demonstrate understanding of the importance to career development and professional growth of pursuing lifelong learning and maintaining currency in one's field

#### 6. *Information Competence, Technology, and Computers*

- 6.1 Demonstrate information competence at each stage in the following processes: formulate a researchable topic; develop a keyword search strategy, restating it in narrower or broader terms as needed; identify relevant sources of information; locate appropriate sources by searching electronic and/or traditional databases; differentiate between and judge the value of primary

versus secondary sources, empirical versus nonempirical sources, and peer-reviewed versus nonpeer-reviewed sources; read and comprehend psychological literature; evaluate the appropriateness, accuracy, quality, value, and potential bias of identified sources; select sources from several media, including data and perspectives outside traditional psychology and Western boundaries

- 6.2 Organize and report information by using appropriate software to produce understandable reports of the psychological literature, methods, and statistical and qualitative analyses in APA or other appropriate style, including graphic representations of data
- 6.3 Use information and technology ethically and responsibly
- 6.4 Demonstrate computer skills: creating files; using word processing, database and data analysis programs; search the World Wide Web; use email, incorporate emerging technologies into existing practices

## 7. *Critical and Creative Thinking, Reasoning, and Problem Solving*

- 7.1 Use critical thinking effectively
- 7.2 Engage in creative thinking
- 7.3 Use reasoning to recognize, develop, defend, and criticize arguments and other persuasive appeals
- 7.4 Approach problems effectively

## 8. *Sociocultural and International Awareness*

- 8.1 Work and communicate effectively and sensitively with people from diverse backgrounds and multicultural perspectives
- 8.2 Examine the major sociocultural components that have influenced individual identities
- 8.3 Explain how individual identities influence beliefs, values, and interactions with others and vice versa
- 8.4 Relate how privilege, power and oppression affect prejudice, discrimination, and inequity
- 8.5 Recognize prejudicial attitudes and discriminatory behavior in themselves and others

## 9. *Communication Skills*

9.1 Demonstrate effective writing skills in various formats (e.g., essays, correspondence, technical papers) and for various purposes

9.2 Demonstrate effective oral communication skills in various formats and for various purposes

9.3 Interpret and construct graphs, tables, images, maps and so on.

9.4 Demonstrate effective interpersonal communication skills

## 10. *Personal Development and Relationship Building*

10.1 Reflect on experience and find meaning in it

10.2 Demonstrate the application of psychological principles to promote self-improvement

10.3 Demonstrate appropriate, effective relationships with others in diverse settings, such as work, family, and other social environments

These Goals and Objectives served as the first product of the development and implementation of the Assessment Plan for the Psychology Major.

### **Step II. Mapping the curriculum**

The next step we undertook was an intensive examination of the entire psychology program course by course. The purpose of the examination was to determine where in the curriculum each of the Goals and Objectives was addressed.

Faculty members who taught each course met in groups and identified which of the goals and objectives identified above were addressed in their courses in a substantive fashion.

After all these assessments were completed for all courses, the results were entered into a matrix of courses by objectives. This matrix served as the second outcome of our assessment process. One of the benefits to this process is that we could examine the degree to which the requirements for the major provided sufficient opportunity for students to develop proficiency in the Goals and Objectives we had identified.

### **Curriculum Map**

<b>% of required major courses that address goal area</b>	<b>Goal area</b>
48	1. Theory And Content Of Psychology
43	2. Research Methods.
39	3. Application Of Psychology
59	4. Values In Psychology
10	5. Career Planning And Development
35	6. Information Competence, Technology, And Computers
58	7. Critical And Creative Thinking, Reasoning, And Problem Solving.
20	8. Sociocultural And International Awareness
48	9. Communication Skills
20	10. Personal Development And Relationship Building

These data were informative. It appears as if we provide sufficient coursework to insure students meet many of the goals. However, in some areas, we became aware that our coursework may not be adequate. The areas that possibly seemed weaker were in Career Planning and Development, Sociocultural and International Awareness, and Personal Development and Relationship Building.

As will be seen later in this Assessment Plan for the Psychology Major, data from students and alumni were, in general, consistent with the data in this chart.

### **Step III. Monitoring adherence to goals and objectives for each course**

The next step was designed to insure that each course, as it was actually taught, was structured to address the goals identified for it. Faculty members have a great deal of discretion regarding the design of their courses. However, having adopted a set of common goals for the major, faculty members have agreed to design their courses to meet the goals identified for them.

This step was accomplished by assigning courses to the appropriate areas for review. In the Psychology Department all faculty members belong to an area group that is responsible for graduate and undergraduate matters relating to their area of specialization. There are areas for Developmental faculty, Industrial-Organizational/Social faculty, and so on. The faculty members in each area reviewed syllabi of all courses taught in their areas to determine whether the course addressed the goals identified for it. Faculty members who taught the courses were provided with feedback when appropriate about Goals and Objectives that appeared to be addressed sufficiently and, upon occasional, Goals and Objectives that needed more emphasis.

This procedure will be conducted yearly or every other year. The report of all areas of their review of course syllabi was the third outcome of our assessment process. It can be viewed at this link: <http://www.psychology.ilstu.edu/undergrad/Goals.htm>.

### **Step IV: Evaluating the effectiveness of the psychology major in meeting the goals and objectives**

To evaluate outcome, the department has adopted a plan that involves three types of data: (A) surveys of graduating seniors (B) surveys of alumni, and (C) ratings of students by faculty teaching their capstone course. For this section of this report, only the findings from the first two sources are reported. Findings from the ratings of students by faculty will be presented in the final section.

### **A. Surveys of graduating seniors**

In Fall 2002 we surveyed seniors who were in their capstone course (Senior Seminar). The results are below. The survey is abbreviated in the interests of space. In the form administered to students, each question also contained all of the objectives listed in Step I above. Students rated the extent to which each goal is addressed adequately in the curriculum for the psychology major.

#### 1. Theory and content of psychology

a. strongly agree	21%
b. agree	68%
c. neither agree nor disagree	7%
d. disagree	4%
e. strongly disagree	0%

#### 2. Research methods

a. strongly agree	30%
b. agree	42%
c. neither agree nor disagree	17%
d. disagree	11%
e. strongly disagree	0%

#### 3. Application of psychology

a. strongly agree	11%
b. agree	36%

- c. neither agree nor disagree 25%
- d. disagree 28%
- e. strongly disagree 0%

4. Values in psychology

- a. strongly agree 21%
- b. agree 45%
- c. neither agree nor disagree 19%
- d. disagree 11%
- e. strongly disagree 2%

5. Career planning and development

- a. strongly agree 8%
- b. agree 28%
- c. neither agree nor disagree 26%
- d. disagree 32%
- e. strongly disagree 6%

6. Information competence, technology, and computers

- a. strongly agree 32%
- b. agree 38%
- c. neither agree nor disagree 9%
- d. disagree 15%
- e. strongly disagree 4%

7. Critical and creative thinking, reasoning, and problem solving

a. strongly agree	21%
b. agree	49%
c. neither agree nor disagree	21%
d. disagree	8%
e. strongly disagree	0%

8. Sociocultural and international awareness

a. strongly agree	21%
b. agree	25%
c. neither agree nor disagree	19%
d. disagree	28%
e. strongly disagree	8%

9. Communication skills

a. strongly agree	23%
b. agree	49%
c. neither agree nor disagree	15%
d. disagree	13%
e. strongly disagree	0%

10. Personal development and relationship building

a. strongly agree	13%
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b. agree	60%
c. neither agree nor disagree	19%
d. disagree	8%
e. strongly disagree	0%

Students' ratings were strongest in the areas of Theory and Content of Psychology, Research Methods, Teaching of Values of Psychology, Information Competence, Critical and Creative Thinking, Communication Skills, and Personal Development. Not only were the ratings the strongest in these areas, but they were very high. Students clearly indicated they believed the psychology major afforded them opportunities to develop the skill, knowledge, or attitudes reflected by these goals.

The lowest areas were in Applications of Psychology, Career Planning, and Sociocultural Awareness. For each, less than half of those responding agreed that the goal was being met.

These results were informative. They can be compared with the results of the curriculum mapping above (Step II: Mapping the Curriculum). Two areas were identified that appeared weaker from both types of data: Career Development and Sociocultural/Multicultural Awareness.

The curriculum mapping reported in Step II suggested the major might provide students with insufficient opportunities to develop Goal 10 (Personal Development), but, according to the Senior Seminar surveys, the students felt they had sufficient opportunities to do so. Alternatively, the curriculum mapping indicated sufficient coverage of Applications of Psychology (Goal 3), but the data from the Senior Seminar surveys suggested students need more in this area.

## **B. Feedback from alumni**

In 2001, psychology faculty members M. Nauta and V. Farmer-Dougan undertook a large-scale study of psychology alumni. The survey was conducted prior to our identification of the ten Goal areas, but the findings address most of those Goal areas.

The first four tables, directly from the original report, show students' reports of the skills acquired and courses taken at ISU that were most valuable to them in graduate school or employment.

Table 9

### **Courses Rated as Most Helpful in Preparing for Graduate School**

<b>Type of Course</b>	<b><u>N</u></b>	
<b><u>%</u></b>		
Statistics	79	37.8
Experimental Psychology/Research Methods	35	16.3
Personality Psychology	34	16.2
Psychopathology/Abnormal psychology	34	16.0
Other Course (non-psychology)	31	12.8
Psychological Testing	28	13.3
Characteristics of LD/BD/EMH in children/adols.	28	15.2
Child Psychology 19.4	21	
Senior Seminar	18	8.5
Psychological Measurement	16	7.6
Behavior Disorders 7.5	16	
Business/Industrial Psychology 6.6	14	
Learning 9.4	14	
Organizational Psychology 6.6	14	
General Psychology 6.1	13	
Social Psychology 6.1	13	
Computer Applications 4.1	11	
Cognitive Psychology 4.7	10	

Psychology of Adolescence 4.2	9	
All Courses 4.3	9	
Physiological Psychology 3.2	7	
Psychology of the Exceptional Child 2.7	6	
Adult Development and Aging 2.4	5	
History and Systems of Psychology 1.9	4	
Motivation 1.8	4	
Principles of Behavior Modification 1.5	3	
Perception	3	1.5
Personnel Psychology	2	.9
Independent Study	1	.5
Dynamics of Social Behavior	1	.5

Note. Respondents could list more than one course as most valuable. Percentages are based on the responses from alumni who had completed or were currently enrolled in graduate programs (N = 21)

Table 10

**Skills/Specific Knowledge Acquired in Undergraduate Program Rated as Most Helpful in Preparing for Graduate School**

<b>Type of Skill</b>	<b><u>N</u></b>	<b><u>%</u></b>
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Writing Skills	96	45.5
Statistics Skills	91	43.1
Research Skills	52	24.6
Knowledge of Personality Theories	51	24.2
Knowledge of Learning Principles	20	9.5
Knowledge of Development	15	7.1
Basic Psychological Terminology	15	7.1
Knowledge of Psychopathology	11	5.2
Critical Thinking Skills	8	3.8
Knowledge of Behavior Modification Principles	7	3.3
Oral Presentation Skills	7	3.3
Knowledge of Physiology	6	2.8
Computer Skills	5	2.4
Knowledge of Motivation	4	1.9
Knowledge of Behavior Disorders	4	1.9
Knowledge of Perception	3	1.4
Knowledge of Testing/Assessment	2	.9
Knowledge of Social Psychology	2	.9
Typing	2	.9
Knowledge of History of Psychology	1	.5
Study Skills	1	.5
Knowledge of Cognitive Theories	1	.5

Appreciation of Ethics  
.5

1

Note. Respondents could list more than one course as most valuable. Percentages are based on the responses from alumni who had completed or were currently enrolled in graduate programs (N = 211).

Table 12

**Courses Rated as Most Helpful in Preparing for Work after Graduation**

<b>Type of Course %</b>	<b><u>N</u></b>
Psychopathology/Abnormal Psychology	71 44.9
Business/Industrial Psychology	46 29.1
Statistics	41 25.9
Developmental Psychology	40 25.3
Other Course (non-psychology)	36 22.8
Personality Psychology	35 22.2
Senior Seminar	29 18.4
Social Psychology	29 18.4
Learning	27 17.1
Experimental Psychology/Research Methods	21 13.3

Child Psychology	21 13.3
General Psychology	20 12.7
Motivation	16 10.1
Principles of Behavior Modification	15 9.5
Independent Study	13 8.2
All Courses	12 7.6
Psychology of Adolescence	10 6.3
Computer Applications	9 5.7
Characteristics of LD/BD/EMH in children/adols.	8 5.1
Physiological Psychology	8 5.1
Cognitive Psychology	8 5.1
Personnel Psychology	8 5.1
Organizational Psychology	6 3.8
Psychological Measurement	6 3.8

Behavior Disorders	6	
	3.8	
Experimental Psychology/Research Methods	5	
	3.2	
Psychology of the Exceptional Child	5	
	3.2	
History and Systems	3	
	1.9	
Gerontology	1	.6

Table 13

**Skills/Specific Knowledge Acquired in Undergraduate Program Rated as Most Helpful in Preparing for Work After Graduation**

<b>Type of Skill/Specific Knowledge</b>	<b><u>N</u></b>	<b><u>%</u></b>
Writing Skills	101	63.9
Statistical Skills	82	51.9
Knowledge of Personality	48	30.4
Research Skills	35	22.2
Knowledge of Psychopathology	17	10.8
Knowledge of Development	12	7.6
Knowledge of Learning	Principles 10	6.3
Critical Thinking Skills	10	6.3
Knowledge of Social Psychology	8	5.1

Knowledge of Basic Psychological	Terminology	5 3.2
Knowledge of Behavior Modification Principles	4 2.5	
Oral Presentation Skills	4 2.5	
Knowledge of Behavior Disorders	4 2.5	
Knowledge of Physiological	Psychology 4 2.5	
Knowledge of Industrial/Organizational	Psychology	4 2.5
Knowledge of Motivation	3 1.9	
Computer Skills	3 1.9	
Practical Experience	2 1.3	
Study Skills	2 1.3	
Knowledge of History of Psychology	1 .6	

Knowledge of Cognitive Theories	1	.6
Testing/Assessment	Skills	1
		.6
Knowledge of Perception	1	.6

Note. Respondents could list more than one course as most valuable. Percentages are based on the responses from alumni who had not pursued advanced degrees (N = 158).

What do these findings tell us? As of three years ago, when this survey was conducted, it seems as if both groups of psychology majors believed that they adequately met Goal 1 (Theory and Content of Psychology), Goal 2 (Research Methods), Goal 6 (Information Competence), Goal 7 (Critical Thinking), and Goal 9 (Communication Skills).

From these data it is somewhat difficult to draw conclusions about the other goals, as we cannot tell if the other goals were met or were simply not assessed adequately in the survey. The next two tables from the report are relevant to this issue.

Table 11

**Additional Skills/Knowledge/Courses that Would Have Been Useful in Preparing for Graduate School**

**Type of Skill/Knowledge/Course**

<u>N</u>	<u>%</u>
More Practical Experience 13.3	28
More Research Experience 9.5	20
More Writing Required 8.1	17

More Statistics 7.1	15	
Introduction to Counseling/Clinical Course	14	6.6
Course on Job Opportunities/Resume Writing/Etc.	13	6.2
More Computer Skills 5.2	11	
More Oral Presentations	4	1.9
Cross-cultural Class	4	1.9
More Emphasis on Physiological Psychology	4	1.9
Special Education Course in Psychology	3	1.4
More Emphasis on Personality Theories	3	1.4
More Testing/Assessment Skills	3	1.4
Business Class in Psychology	3	1.4
More Seminars 1.4	3	
More Emphasis on Critical Thinking 1.4	3	
More Direct Interaction with Professors	2	.9
Class on Time-Management Skills .9	2	
Higher Standards .9	2	
More Emphasis on Psychopathology .5	1	
Better Knowledge of Types of Grad. Programs	1	.5
More Independent Studies .5	1	
Knowledge of School Systems	1	.5
More emphasis on Child Development	1	.5

Stress-management Skills	1	.5
Better GRE Preparation	1	.5
More Group Projects	1	.5
Grant Writing Skills	1	
.5		

Note. Respondents could list more than one skill/knowledge area/course as most needed. Percentages are based on the responses from alumni who had completed or were currently enrolled in graduate programs (N = 211).

Table 14

**Additional Skills/Knowledge/Courses that Would Have Been Useful in Preparing for Work After Graduation**

**Type of Skill/Knowledge/Course**

<u>N</u>	<u>%</u>
More Practical Experience 33.5	53
Course on Job Opportunities/Resume Writing/Etc. 19.6	31
Introduction to Counseling/Clinical Course 19.0	30
Business Classes 11.4	18
More Computer Skills 15	9.5
More Writing Required 12	7.6

Human Resources Classes 7.6	12
More Research Experience 5.1	8
Special Education Course in Psychology 4.4	7
More Emphasis on Psychopathology 3.2	5
Knowledge of Legal Issues 3.2	5
More Emphasis on Critical Thinking 2.5	4
More Statistical Skills 1.9	3
More Oral Presentations 1.9	3
More Group Projects 1.9	3
More Testing/Assessment Skills 1.3	2
Time-management Classes 1.3	2
Cross-cultural Class 1.3	2
More Physiological Classes 1.3	2

Note. Respondents could list more than one course as most valuable. Percentages are based on the responses from alumni who had not pursued advanced degrees (N = 158).

These data are very informative and provide a more complete picture of the degree to which the major in place at that time met the ten Goals and Objectives for the psychology major that we subsequently developed. They tell us that alumni did not feel they were adequately prepared in Career Development (Goal 5) and Applications of Psychology (Goal 3). Although not to the same degree, alumni also reported that we could do more in the area of multiculturalism (Goal 8). Goal 4 (Values in Psychology) was not directly assessed in the survey.

## **Step V: Revising requirements for the psychology major to address areas of weakness**

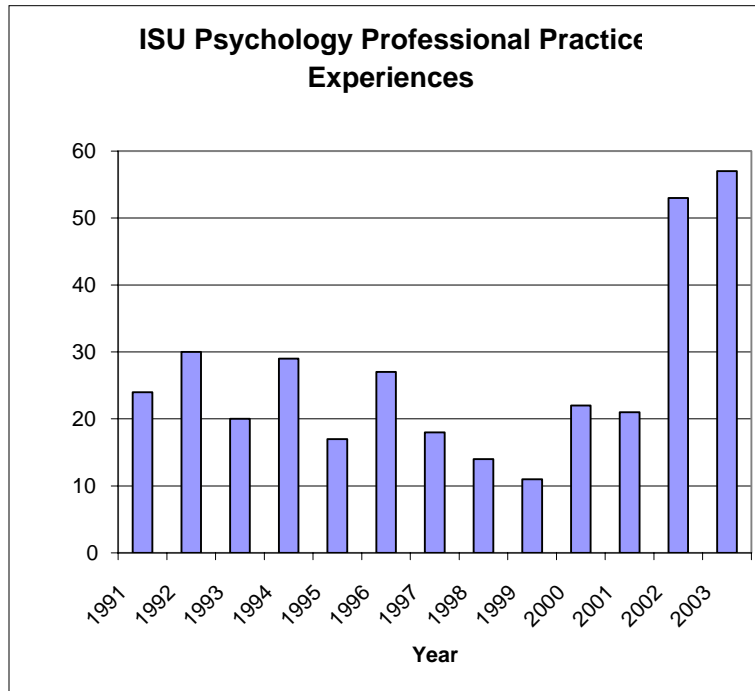
Along with our discussions at the departmental level regarding goals for the major and ways of assessing outcome, the department was utilizing the information collected to examine changes that needed to be made in the psychology major. Within the past two years, we have implemented the following to address the concerns raised in our assessment process:

**A. Career planning and development:** One Goal area deemed insufficiently addressed in the major was preparation for careers. This goal area was noted in the Senior Seminar surveys, in the Curriculum Mapping, and in the reports of alumni. We have implemented the following changes to address this weakness:

1. PSY 200 Careers in Psychology. This is a new course required of all psychology majors. It addresses a number of issues regarding career options with a major. It was taught for the first time spring 2004 and was extremely well received by students. It is designed for students in the second semester of their freshman or first semester of their sophomore years. It replaces coverage of careers in Senior Seminar, which was too late to be of greatest value to students.

2. PSY 395 Professional Practice Seminar. PSY 395 is a new course, taught for the first time in 2003-2004. It is taken concurrently with PSY 398, thereby providing stronger academic connections and professional preparation. It covers issues such as ethics, multiculturalism, empirical approaches to therapy, and developing a professional role and identity.

3. PSY 398 Professional Practice. This is a longstanding course that did not count for major credit. Since an undergraduate internship is generally regarded by students as among the most valuable of their educational experiences, and helps students identify career options, we changed this so now it does receive credit toward the major. For numerous reasons, we have, within the past two years seen a dramatic increase in the number of students doing a Professional Practice:



**B. Sociocultural and international awareness (Goal 8):** Our graduating seniors reported that they did not have enough opportunities to develop in this area, a finding consistent with the curriculum mapping project which indicated that this goal was not addressed to the same extent as other goals. Changes made were the following:

1. PSY 327 Topics in Psychology and Diversity. This new course was proposed by the newly hired faculty members with diverse backgrounds.

2. PSY 326 International Psychology. This new course will cover the involvement of scientific and professional psychology applied to contemporary global issues. It was proposed by a faculty member very active in this area.

3. Hiring and appointment of two Diversity Coordinators for the department. They have established a mentorship program for minority students, implemented for the first time during the 2003-2004 school year. They have also contributed to curriculum development in this area.

**C. Applications of psychology (Goal 3).** While not identified as a weakness through the curriculum mapping, this area was identified by current and former students as being an area that was in need of improvement. To address this goal, we have implemented the following changes:

1. We have dropped Senior Seminar as the capstone experience for the psychology major and have added a menu of options in research, teaching, and practice. These new capstone options address a number of goals in *Educating Illinois* regarding individualized attention. These new options for the capstone all involve

working closely with faculty members, either on their research and teaching projects or in seminars devoted to students' internships. Consequently, students will be applying what they learned from their psychology major to the solution of problems in teaching, research, and practice. In addition, these new capstone options will assist students in Career Development (Goal 6). Our experience is that mentoring relationships with faculty greatly facilitate career exploration.

2. PSY 351 Clinical Applications of Psychology. This is a new course that has been taught three times. In addition to covering the various ways psychological principles are utilized to improve human functioning, the course introduces students interested in helping professions to the wide variety of career options available to them to do this.

### **Step VI: Identification of quality indicators for the major, procedures for on-going assessment of these quality indicators, and results on achieving our goals**

The changes to the major, most importantly the strengthening of the capstone experience, the identification of goals for the psychology major, and defining measures of quality for a psychology major have all come together for our on-going assessment plan. We are able to report a first round of data collection on the outcomes of our curricular changes.

#### **A. Quality indicators**

As described in Step 1: Development of goals and objectives for the psychology major, the psychology department has adopted the goals and objectives developed by the Education Directorate of the American Psychological Association. These goals were developed by a distinguished panel of experts in undergraduate education, representing a wide variety of types of colleges and universities. Throughout the process, they solicited input from APA members.

By adopting the recommendations of the Education Directorate, the psychology department is utilizing the collective expertise of many psychologist/educators who lead undergraduate programs. Although APA does not have an accreditation process for undergraduate programs, by adopting these standards and insuring that these standards are met in the curriculum (see Appendix 2), we believe we are following "best practices" regarding the undergraduate psychology major.

After we adopted these goals, we then identified gaps in the program where it did not appear that instruction was sufficient for students to be able to meet the goals. In response, we added several courses and made significant changes to the capstone options. Finally, we developed a process for monitoring adherence to the goals and objectives that all courses were to be designed to meet.

As a result of this undertaking, we assert that a student who completes our psychology major has the opportunity to develop skills, attitudes, and knowledge in those areas deemed important by a national body of psychologists and is thus reflective of "best practices" in the field.

Therefore, we define our *first indicator of quality as being evidence that students acquire the skills, attitudes, and knowledge identified in the ten goals for psychology majors.*

Further, psychology as a discipline, reflected in the goals we have adopted for the major, places a high value on application of psychological knowledge, attitudes, and values in research, teaching, and community settings. Training in research methodology ethics, critical thinking, applications of psychology to mental health, business, and education, and so on, enable students, by the time they graduate, to engage in the practice of psychology at a beginning level.

Therefore, *our second indicator of quality will be the extent to which students elect a capstone experience where they will produce a research, teaching, or applied product.*

Finally, after students graduate, they should find that what they have gained from a psychology major applies to their lives—both their professional lives and their personal lives. The psychology major is not a trade school. On the one hand, students are prepared for entry-level positions in psychology—both on the job and in graduate school. But just as important, if not more, the psychology major is geared toward helping students be better voters, parents, and citizens. The goals of the undergraduate major reflect this thinking. For example, training in research methodology is not just for students who eventually will engage in research as a career. Through learning about research methodology, students learn about knowledge—how tentative it should be, how difficult “facts” are to obtain, and how one needs to be skeptical of broad, untested, statements of truth. This type of thinking leads to autonomy and independence and better decision making.

This is one among many reasons why the psychology department will not use a test of the “content” of psychology as a quality indicator and as part of the assessment process (see endnote). Many of the specific research findings of psychology will fade in the minds of students who do not go on to graduate school. But, we hope, the way of thinking and reasoning that are hallmarks of the profession will not. Nor should the values, ethical conduct, and respect for individual differences that are embedded in all of their psychological training.

Therefore, *our third indicator of quality is that students demonstrate the values and manner of thinking fostered by the discipline of psychology.*

Finally, psychological training does prepare students for rewarding careers. These careers can be either directly related to their psychological background or indirectly related (meaning that success in any career should be enhanced by a background that produces psychological thinking and emphasizes psychological values). These careers can include admission to graduate programs. *Our final quality indicator will be to maintain an admission rate to graduate programs comparable with national averages for undergraduate programs and career success comparable with other undergraduate programs.*

## **B. Assessment of quality indicators**

1. Students will acquire the skills, knowledge, values and attitudes reflected in the 10 goals for the undergraduate psychology major

- a. Alterations in our department course evaluation process to focus more on learning outcomes rather than strictly “process” variables. For the past two years, the psychology department has been working to develop a different type of course and instructor evaluation instrument. The current one focuses more on “process” variables rather than on “learning outcomes.” We have developed several new forms and have pilot tested many of them. The decision on the final instrument will likely be made in the upcoming year. Most importantly, though, the instrument will contain questions that will reflect the 10 goals for the psychology major. The instrument will ask students to report the extent to which the course assisted them in the development of the skills, knowledge, attitudes, and values that we have identified as important
- b. Every other year, all undergraduate courses will be reviewed for their adherence to the goals we have identified that should be addressed in the courses, as was described in “STEP III. Monitoring adherence to Goals and Objectives for each course,” above.
- c. Faculty who supervise the capstone experiences will provide ratings of each student they teach or supervise. By the nature of these capstone experiences, faculty will be in an excellent position to assess these dimensions.
- d. Students who are completing their capstone experiences will provide ratings of the extent to which they believe they have met the goals identified for them through the psychology major.

## 2. Completion of a capstone project

Changes in programs do not occur quickly. Our new capstone option became official for students who entered as freshmen in 2003. Thus, it will be several years before we can accurately determine the percentage of students who choose a research, teaching, or professional practice capstone option.

However, our initial data are extremely positive. Through the listserv, faculty, website, and advisors, we informed students who were planning to graduate in December 2003 and May 2004 that they could elect to complete their capstone in new fashion. Even though they often had no way of planning to do this ahead of time, many students chose to do so. Approximately 20% of graduates have chosen a capstone project in the first year, although it was not a requirement for any of them. All of these students could have stayed with the less time intensive requirement that was already in place for them. This is extremely encouraging to us.

## 3. The thinking and values of psychology

This is a difficult concept to measure. However, we believe that the assessment of this variable is closely tied to the assessment of the other quality indicators. That is, faculty ratings of students in their capstone experiences provide an excellent way of determining whether students have acquired the manner of thinking and values of

psychologists. In addition, alumni reports about how meaningful their psychological background has been to them in their professional and personal lives will provide us with feedback relating to this indicator of quality.

#### 4. Graduate school admission and careers

This indicator of quality will be assessed by surveys of alumni. The manner in which those surveys will be conducted is yet to be determined. Alumni surveys are time intensive and expensive. The most useful survey for this assessment process was conducted by two faculty members who received a summer grant to do so. Surveys done through the university generally result in such a small return rate that they are not useful.

### C. Assessment results

Through the development of our Assessment Plan, several changes were made to the psychology major that we believe will enable us to be more successful in meeting the goals we have established for the major. The current assessment results, then, are formative in the sense that it will require several years before all of the changes we have made should bear fruit. Nevertheless, they are informative.

#### 1. Goal attainment by advanced majors

In spring 2004, all psychology majors in their senior capstone completed a survey of the ten Goals like the one completed by seniors in their capstone in 2002 (and reported in Step IV above). Additionally, faculty teaching those capstone options rated each student. The survey for students was identical to the one presented in Step IV, and the results present those agreeing or strongly agreeing or that the goal was being met. The faculty survey rated students on these dimensions on a 1-5 scale, with 5 representing Excellent, 4 representing Good, 3 representing Average, 2 representing Fair, and 1 representing Poor. Thus, although the student and faculty surveys are not strictly comparable, they provide parallel outcomes on goal attainment.

#### Goal Attainment as Judged by Students and Faculty

Goal Area	Students	Students	Faculty
	2002	2004	2004
	%	%	Rating
1. Theory and content of psychology	89	82	4.10
2. Research methods	72	84	4.02

3. Application of psychology	47	75	4.21
4. Values in psychology	66	86	4.30
5. Career planning and development	36	55	4.44
6. Information competence, technology, and computers	70	67	4.21
7. Critical and creative thinking, reasoning, and problem solving	70	82	4.13
8. Sociocultural and international awareness	46	64	4.25
9. Communication skills	72	81	4.12
10. Personal development and relationship building	72	77	4.33
Mean	64	75	4.21

Overall, students agreed that the major is resulting in their acquisition of important skills, knowledge, and attitudes and that the major has improved in doing so over the last two years. Areas of strength (80% or more agreement) were the following: theory and content of psychology, research methodology, values, critical thinking, and communication skills. Areas of less strength (55-77% agreement) were in applications of psychology, career planning, use of technology and information, multicultural awareness, and personal development. We are encouraged that there was a considerable increase (15% or more) from 2002 to 2004 in the three areas (applications, career planning, and multicultural awareness) that we had targeted for improvement. We expect students in subsequent years to profit from the changes we have made (e.g., Careers course, capstone options that are project-oriented, new classes in multiculturalism, etc.)

The faculty whose ratings provided an assessment of student learning had opportunities to observe the students in small group or individual contexts. They either taught the small Senior Seminars or the Professional Practice Seminar, or they supervised honors projects or capstone independent study projects (PSY 390). Overall, faculty rated the

students very highly (4.21 on a 5-point scale) in terms of meeting the goals we had established for graduating with a psychology major from ISU.

## 2. Goal attainment by alumni

In the 2004 university alumni survey, the ten Goals adopted in 2002 for the psychology major were included. Goal attainment was rated as 5 Excellent, 4 Good, 3 Average, 2 Fair, or 1 Poor. The return rate was extremely low (14 alumni from 1998 alumni and 32 from 2002). Results are summarized in Table I.C.3. The data from small group of alumni, all of whom graduated before the ten goals were adopted, indicate that the previous curriculum was not doing an adequate job of meeting the goals. These results confirm those found for graduating seniors in 2002 and are in sharp contrast to those for graduating seniors in 2004, as shown in the previous table.

### Goal Attainment as Judged by Alumni

Goal Area	1998 Alumni	2002 Alumni
1. Theory and content of psychology	2.57	2.50
2. Research methods	2.57	2.38
3. Application of psychology	2.57	2.44
4. Values in psychology	2.5	2.38
5. Career planning and development	3.07	3.06
6. Information competence, technology, and computers	3.07	2.63
7. Critical and creative thinking, reasoning, and problem solving	2.29	2.22
8. Sociocultural and international awareness	2.71	2.09

9. Communication skills	2.14	2.56
10. Personal development and relationship building	2.36	2.53

### 3. Career outcomes of alumni

This year out of the 91 spring graduates, we have reports from 17 that they have already been admitted into graduate programs, which is approximately 19%. These data are likely very conservative because they were collected prior to graduation—any students admitted over the summer would not be included. Nationally, best estimates from APA and other sources is that 15-20% of graduates of public institutions plan to go directly to graduate school. Therefore, we believe we either meet or exceed the graduate school admission rate of psychology programs nationally.

We know that the more typical route to graduate school is to work for a year or two and then return to school. This is more likely to occur for ISU students for whom financial considerations are seemingly always present. More complete results come from a survey in 2000 of graduates in the previous decade, which was returned by 369 alumni. 57% of those reported either having obtained a graduate degree or being in a graduate program. It is likely that this is an overestimation because the survey was returned by only 20% of graduates, which may disproportionately include those involved with graduate work. Nevertheless, they are a positive indicator of program quality.

Job information for our alumni also can be used as a quality indicator. Data from the alumni who returned the survey and who did not go to graduate school revealed the following positions obtained:

#### **Job Title of Respondents' First Job after Graduation (bachelor's level employment only)**

<b>Job Title</b>	<b><u>N</u></b>
<b><u>%</u></b>	
Counselor/Mental Health Service Provider	42
26.6	
Human Resources/Customer Service	27
17.1	

Administrative Assistant 8.9	14
Sales Person 7.6	12
Manager 7.0	11
Insurance-related (e.g., Claims Investigator) 6.3	10
Child Care Worker 3.8	6
Research Assistant 3.2	5
Teacher's Aide 2.5	4

These positions are generally consistent with data provided by APA regarding the positions psychology majors obtain after graduation (Grocer & Kohut, 1997). The major differences are ISU psychology graduates reported a much higher percentage in the Counselor/Mental Health Service Provider category and a much lower percentage doing clerical work than those in the APA sample. We consider these findings to indicate that we meet or exceed other undergraduate programs nationally in this quality indicator.

Thirty-one respondents (19.6%) reported that their first job after graduation was closely related to psychology, 27 (17%) described their first job as considerably related to psychology, 26 (17%) described their first job as more-or-less related to psychology, 26 (17%) described their first job as only slightly related to psychology, and 43 (27%) indicated their first job was not at all related to psychology. Five (3%) respondents did not answer this question.

Forty-seven (30%) respondents said that their undergraduate degree (in general) was very important in obtaining their first job after graduation, 61 (39%) indicated their degree

was important in obtaining their first job, 24 (15%) indicated their degree was not important in obtaining their first job, and 20 (13%) indicated their degree was not at all important in obtaining their first job after graduation. Six respondents (4%) did not answer this question.

Participants' responses suggested that a degree specifically in psychology was somewhat less important in obtaining their first job after graduation. Twenty-five (16%) respondents indicated that their degree in psychology was very important in obtaining their first job after graduation, 41 (26%) indicated it was important, 52 (33%) indicated it was not important, and 34 (22%) indicated it was not at all important. Six respondents (4%) did not answer this question. These findings are comparable to responses of a nationwide survey of psychology bachelor's recipients (Grocer & Kohout, 1997).

### Summary

The development and implementation of the assessment plan for the undergraduate psychology major has been time consuming and rewarding. The process has brought focus to the major and an improved sense of group ownership among the faculty. We have identified gaps in our instruction and taken steps to close those gaps. Our students are reporting substantial improvement in meeting the goals we have identified for them. We expect the eventual payoff for these changes to be fully realized in about four years.

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Note. In an effort to make the assessment plan for the psychology undergraduate major reflective of the most current thinking in psychology, in September 2002 the undergraduate coordinator attended a conference sponsored by the American Psychological Association titled: Measuring Up: Best Practices in Assessment in Psychology Education Conference. Several programs had attempted to institute some type of final comprehensive content exam and use that as an outcome measure. Programs that used this strategy universally came to the conclusion that it was not workable or valid. The best strategies that had been developed focused on examination of work products—sometimes in the nature of portfolios. As a result of what was learned at that conference, we believe our assessment plan, described here, would be comparable or superior to most of the plans presented there. It should also be noted that many schools in attendance lagged far behind us. It is also likely that it is just dawning on many other programs that this is something that needs to be done.