

Psychology Department 2011 Annual Assessment Update

Prepared by Thomas G. Fikes,
Psychology Department Assessment Coordinator
July 2011

I. Mission Statement, Program Goals, Student Learning Outcomes, Curriculum Map, AND Multi-Year Assessment Plan

Provide the URLs to the following departmental documents:

- A. Mission statement and Program Goals. The Psychology Department's mission statement was updated based on feedback from the Program Review Committee. It is available online at:

smb://myfiles.westmont.edu/program_review/Psychology/Guiding Documents

- B. Program Learning Outcomes (PLOs): Our Program Learning Outcomes have also been updated based on PRC feedback. In particular, our previous learning outcomes were revised to become our Program Learning Goals, and we have created Program Learning Goals based on these goals, aligned with the institutional Six-Year Assessment Plan, with one or two PLOs targeted for each year. Goals and outcomes are available online at:

smb://myfiles.westmont.edu/program_review/Psychology/Guiding Documents

- C. Curriculum Map. If your Curriculum Map has been modified or any of alignments between the Program Learning Outcomes and Institutional Learning Outcomes (ILOs) have been changed, provide the rationale for this change and the expected result.

The Curriculum Map and Program Learning Outcome alignments are being updated to conform to the provisional assessment cycle and other documents approved by faculty in the April 2011 Faculty Meeting. A draft of the revised curriculum map is included in Appendix E.

- D. Multi-Year Assessment Plan.

See Appendix D.

II. Follow up on Action Items identified in previous reports

The 2010 PRC response to the Psychology Department is included here as Appendix A. Each action item identified in that response is listed here, along with (a) the faculty member charged with overseeing it, (b) a brief update on progress toward closing the loop, and (c) additional related issues that have come to light.

- A. Revision of Mission, Curriculum Map, and SLO rubrics (faculty member responsible: Tom Fikes). Completed in July 2011; see section

- I above.
- B. Develop single SLO for 2011-12 (faculty member responsible: Tom Fikes). Writing and Oral Communication SLO drafted summer 2011 (see 2010-2011 Curriculum Map); awaiting rubrics, etc. from PRC and Sarah Skripsky in order to develop assessment strategy and refine SLO.
 - C. Redirection of assessment efforts exclusively or primarily toward capstone courses (faculty member responsible: Tom Fikes). PSY-111 was added to psychology capstone experience (memo to PRC forthcoming). 2010-2011 future assessment efforts will focus on PSY-111, PSY-196, and PSY-197/8. See 2010-2011 Curriculum Map, “M” courses.
 - D. Implementation of concrete, documentable means of closing the assessment loop in ways that increase our educational effectiveness (faculty member responsible: Tom Fikes). May 2011 meetings were devoted to this; minutes of those meetings provide documentation. Curricular and other changes resulting from discussions in these meetings will begin to be implemented Fall 2011.
 - E. Alignment of our 2011-2012 and longer-term plans to the assessment cycle provisionally accepted by the faculty (faculty member responsible: Tom Fikes). In progress: see 2010-2011 Curriculum Map; new mission, PLGs, SLOs; Multi-Year Assessment plan.

III. 2011 Focus

The Psychology Department’s **Student Learning Outcome** scheduled for attention in 2010-11 related to our Knowledge Base Program Learning Goal: *Students will demonstrate the ability to identify, recognize, or otherwise articulate key elements of content (e.g., core concepts, theories, and individuals) within a wide variety of areas in psychology.* A 101-item multiple-choice test covering 18 traditional subdisciplines of psychology, along with a scoring rubric with benchmarks based on a combined measure of overall score and breadth of proficiency across subdiscipline scales, was developed to aid in assessing student learning outcome for senior undergraduate psychology majors at Westmont College. The test was administered to 31 students completing an introductory General Psychology course and 21 graduating senior psychology majors at the end of the spring term of 2011. The test showed high split-test reliability and criterion validity when correlated with GPA in the psychology major. Psychology seniors scored significantly higher on average than General Psychology students, and outperformed the General Psychology students on 17 of the 18 subscales. Frequency distributions for the two groups across the 5-category scoring rubric showed developmental patterns and levels of mastery appropriate for the groups. Additional details of the Knowledge Base in Psychology Test (KAPT), data collection methods, results and interpretation, and future plans are summarized below. A longer internal report describing the 2011 KAPT study is attached as Appendix F, *A Knowledge-Base Assessment Test for Undergraduate Psychology Majors* (2011). Local development of such objective tests is recommended by the APA as having “strong potential” (their highest rating) for the assessment of

Knowledge Base of Psychology goals and outcomes (Pusateri, 2009; *The Assessment CyberGuide for Learning Goals and Outcomes*, 2nd ed.). Locally developed objective tests are also recommended for this purpose by Allen (2004; *Assessing Academic Programs in Higher Education*), especially if reliability and validity are assessed, as we have done with the KAPT.

- A. **Summarize** the assessment methods have been used and what data have been collected.
1. Indicate the size of your data set and the group from which the data was gathered.

Two groups of Westmont College students were assessed using the KAPT instrument. Thirty-one students completing a General Psychology course provided data describing the state of students' knowledge base early in our course sequence. Twenty-one graduating senior psychology majors completing or having just completed the department capstone courses provided data describing the state of students' knowledge base at the end of our course sequence.

The KAPT instrument was administered online, and is available at the following URL:

<http://forms.westmont.edu/forms/academics/psychology/assessment/survey.php>

2. Identify your departmental benchmark.

The scoring rubric, criteria and departmental benchmarks for assessing the level of mastery in psychology-related knowledge are described in Table 1, below. Our concern in developing the rubric was for both **overall performance** (raw % correct on KAPT) and **breadth** (based on number of subdiscipline scales with high scores). Thus two sets of criteria are included. Table 2 describes the algorithm for a combined overall-performance/breadth score derived from these criteria, and the benchmarks in the bottom row of Table 1 refer to performance according to this combined score.

As identified in our 2010-2011 Curriculum Map, and consistent with the benchmarks in Table 1, **we would like to see at least 75% of our graduating seniors scoring at or above the Effective level** on the combined KAPT score.

Table 1. Knowledge-base rubric and benchmarks based on Knowledge-base Assessment of Psychology Test (KAPT); also included as Appendix C.

	(Baseline) 0	Underdeveloped 1	Developing 2	Effective 3	Distinguished 4
<i>Description</i>	Chance recognition of key elements of content across all major traditional disciplines	Poor recognition of key elements of content across all major traditional disciplines	Good recognition of key elements in a small number of major traditional disciplines	Good recognition of key elements across a wide variety of major traditional disciplines	Excellent recognition of key elements across a wide variety of major traditional disciplines
<i>Criteria for overall performance score</i>	<30% on KAPT	30-50% on KAPT	50-75% on KAPT	75-85% on KAPT	≥85% on KAPT
<i>Criteria for breadth score</i>	>80% on fewer than 2 KAPT subscales ²	>80% 2-3 KAPT subscales ²	>80% on 4-5 KAPT subscales ²	>80% on 6-7 KAPT subscales ²	>80% on 8 or more KAPT subscales ²
<i>Benchmarks for combined score¹</i>	0%	0%	35%	50%	25%

Notes: ¹Benchmarks are for second-semester seniors; see Table 2 for description of combined score algorithm

²For which Westmont courses are offered

3. Include as appendices the prompt or instrument used to gather the data and a copy of the rubric (or other tool) used to analyze the data.

A URL for the KAPT instrument is included as Appendix B.

4. Describe (URL, computer and file path name, etc.) where in your department's Assessment Archive the data are stored. Scanned .pdf files are recommended.

Student results are stored on our department assessment archive, available at **smb://myfiles.westmont.edu/program_review/Psychology/Assessment Data**

- B. **Interpret the Results.** Based on departmental reflection on the data, describe what the results mean:
 1. Provide evidence of *collectively* interpreting data that have been gathered (dates of departmental meetings focused on the assessment data interpretation, etc.).

The Psychology Department met for 3 4-hour sessions during our annual end-of-year departmental meetings in May 2011 to discuss the results of the KAPT survey. The minutes of these meetings are available in our archive of departmental meeting minutes.

2. Describe any external voices (e.g., Westmont faculty outside the department or program; faculty from other institutions, Westmont graduates) that have been involved in analyzing the data.

Due to the straightforward nature of the analyses, no outside assistance was used to analyze the KAPT results.

3. What have you learned about what your students are learning and how they are developing? What evidence is there that your curriculum design and teaching strategies result in desired student learning and development? How effective are the assessment methods that were used?

Descriptive and interpretive summaries of the KAPT study are presented in the following figures, tables, and concluding comments.

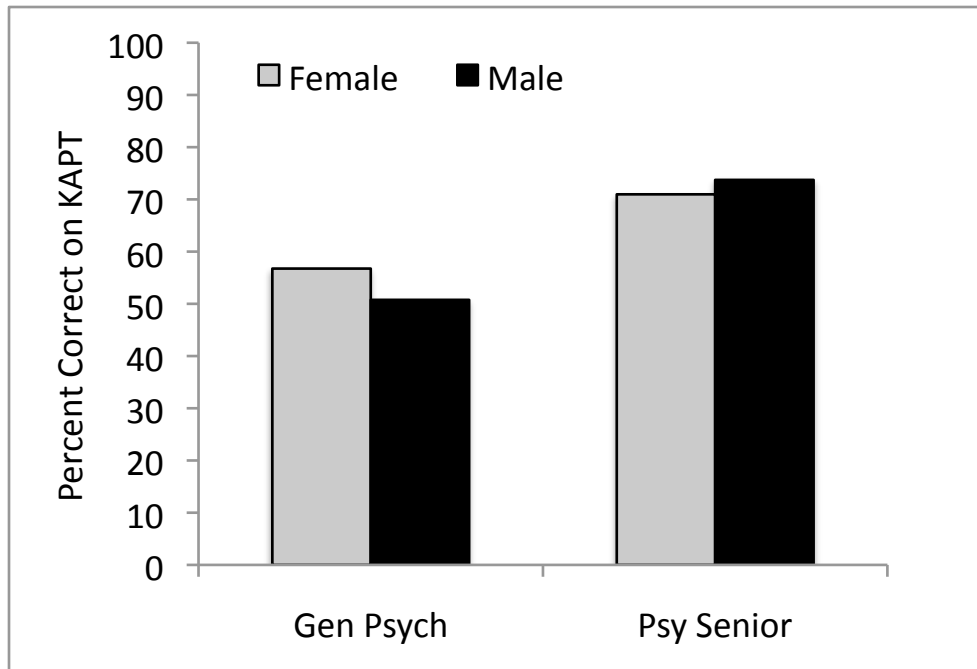


Figure 1. Overall KAPT score for General Psychology students (n=31) and Psychology seniors (n=21), disaggregated by gender. A one-tailed, independent-samples t-test indicated that the mean scores Psychology seniors was significantly greater than that of General Psychology students, $t(34)=6.32, p<.01$.

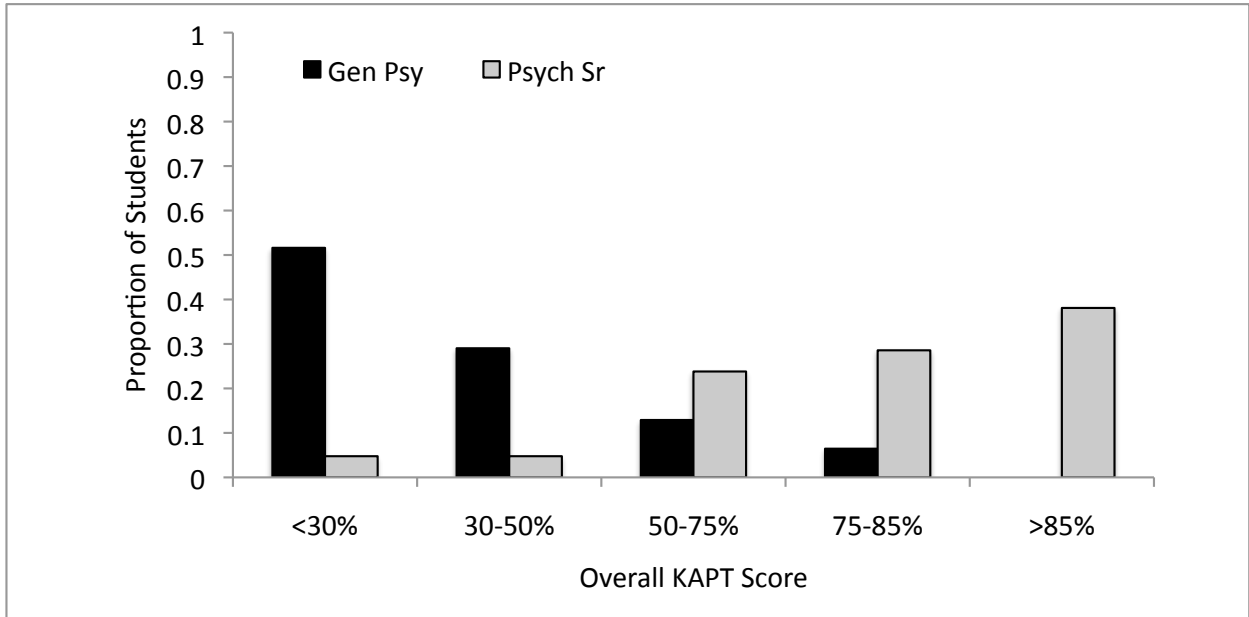


Figure 2. Distribution of overall KAPT score for General Psychology students and Psychology seniors. **The distribution of scores for psychology seniors is higher than that for General Psychology students, indicating greater depth of knowledge.**

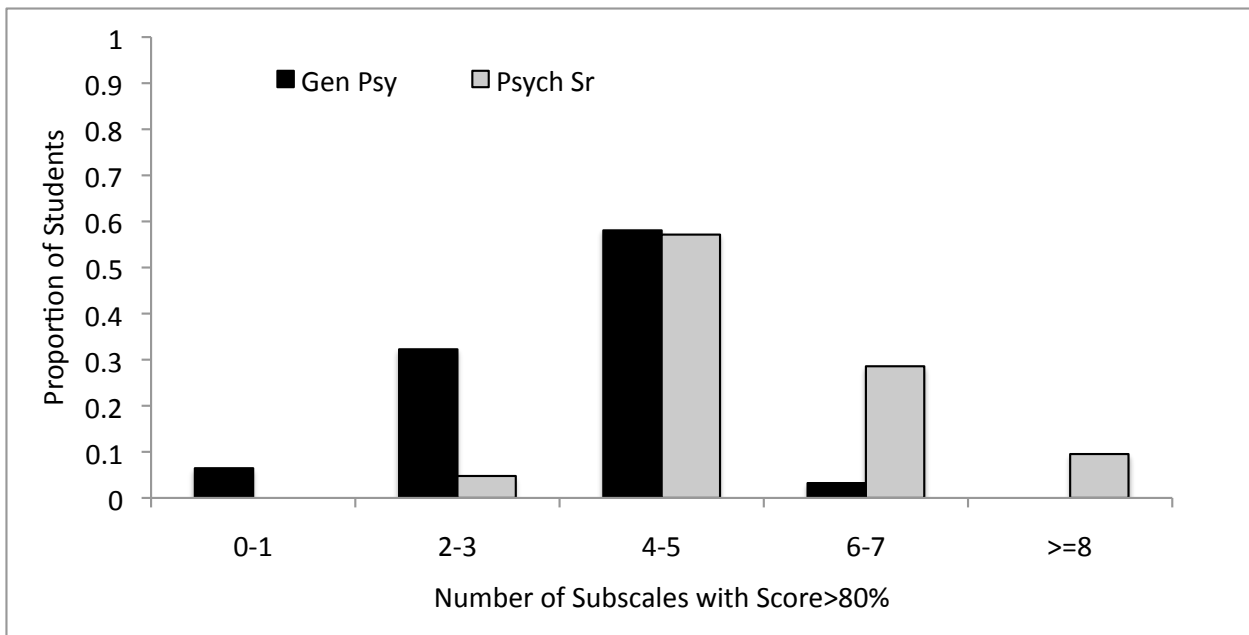


Figure 3. Proportions of General Psychology students and Psychology seniors scoring at or above 80% on specified numbers of KAPT subscales. The KAPT comprises 18 subscales, each assessing knowledge in a different subdiscipline of psychology; 14 of these subdisciplines are primary foci of upper-division Westmont psychology courses. Only subscales for which Westmont courses are offered were counted. **Distribution for Psychology seniors is on average higher, indicating a greater breadth of knowledge for this group.**

Table 2. Knowledge-Base results combining overall score and breadth.

Student Group	Overall Score	Breadth				
		0-1	2-3	4-5	6-7	>=8
Gen Psych	<30%	2	8	6	0	0
	30-50%	0	2	7	0	0
	50-75%	0	0	4	0	0
	75-85%	0	0	1	1	0
	>85%	0	0	0	0	0
Psy Senior	<30%	0	1	0	0	0
	30-50%	0	0	1	0	0
	50-75%	0	0	5	0	0
	75-85%	0	0	3	3	0
	>85%	0	0	3	3	2

Legend: (Baseline) Underdev'd Developing Effective Disting'ed

Note: Numbers in the table represent number of students falling in each Score-Breadth intersection. Colored regions represent Score-Breadth intersections corresponding to common Knowledge-Base rubric categories. Breadth categories are as described in Figure 3.

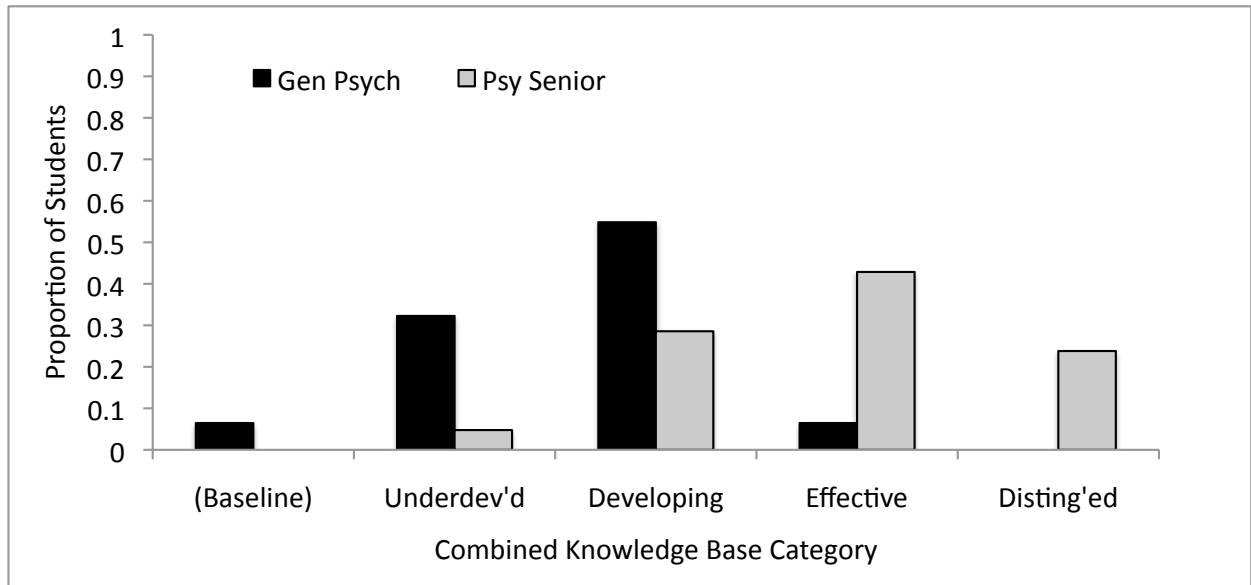


Figure 4. Distribution of General Psychology students and Psychology seniors across categories of the Knowledge Base rubric (Table 1). Benchmarks for assigning students to categories are based on a combination of overall KAPT score and a “breadth” index. Benchmarks are described in Table 1. The strategy for combining the two measures and the resulting frequencies are shown in Table 2. **Distribution of Psychology seniors is on average higher, and over 66% of seniors score at or above the Effective level.**

Conclusions

- **Psychology seniors perform better than General Psychology students**, both overall and across a breadth of subdisciplines; 67% of seniors perform at Effective or Distinguished levels compared to only 6% of General Psychology students.
 - Psychology seniors perform better on overall KAPT score
 - Psychology seniors perform better on 17 of the 18 subscales
- The scoring rubric combining overall performance and breadth was correlated with psychology GPA more highly than overall performance alone, suggesting that the **development of a disciplinary knowledge-base involves not only depth but breadth as well**.
- For Psychology seniors, no student scored in the Baseline category; however, we would like to see no graduating seniors at the Underdeveloped level, **we would like to see more students in the Distinguished category**, and fewer in the Developing category. In particular,
 - we would like to see more of our graduating seniors doing better on multiple subscales, i.e., shifting the Psychology seniors distribution in Figure 3 to the right; and
 - we would like to see the overall KAPT score distribution for Psychology seniors shifted to the right in Figure 2 as well.

These aspirations are reflected in the benchmarks presented in Table 1.

- Over 66% of Psychology seniors, scored at or above the Effective level on the combined performance score. This is close to the 75% benchmark identified in our 2010-2011 Curriculum Map. We aspire to the 75% benchmark when this test is readministered in future years.
- C. **Close the Loop.** What does your department plan to do or what has been done in response to what you have learned?
1. What changes in curriculum, instruction, assignments, course sequencing, faculty support, student support, or resource allocation have been or will be made in light of what you have learned? What results might the entire faculty benefit from knowing? How will/did these results get communicated?

Based on these results and our departmental discussion of them, the psychology department will be working to implement the following changes.

- Continued attention to strong foundational, introductory experience for our students. Important components of such an experience include
 - *PSY-001 General Psychology*. Continued departmental discussion of curriculum and goals for this course; also, more intentional mentoring and curricular supervision of adjunct and new instructors.
 - *PSY-013 Experimental Psychology*. Broader and more explicit attention to a variety of subdisciplines in the laboratory component of this required course.
- More, more explicit, and broader integration of knowledge-base material in our capstone courses.

- *PSY-111 History and Systems of Psychology*. PSY-111 has been explicitly added as a component of the psychology capstone experience, complementing the more targeted, practical, and skill-based approaches of other components of our capstone experience (*PSY-196 Senior Practicum* and *PSY-197/8 Senior Research*). *PSY-111* naturally emphasizes the breadth and depth of a psychology knowledge base, and serves as natural bookend in the senior year to complement, integrate, and re-emphasize concepts covered during the first year in *PSY-001 General Psychology*. In our 2011 end-of year meetings, *PSY-111* joined our other capstone courses when we discussed curricular content and strategy. These discussions will continue as a regular part of our departmental meetings in future years.

In addition, we plan to administer the KAPT again in a future assessment cycle to evaluate the curricular changes that were implemented on the basis of this year's results.

2. What new or revised goals have been set by the department in response to what has been learned? How will these be studied?

As noted above, **we would like to see more students in the Distinguished category**, and fewer in the Developing category. In particular,

- a. we would like to see more of our graduating seniors doing better on multiple subscales, i.e., shifting the Psychology seniors distribution in Figure 3 to the right to match the target benchmarks in Table 1. Similarly,
- b. we would like to see the overall KAPT score distribution for Psychology seniors shifted to the right in Figure 2 as well. Finally,
- c. we would like to see the distribution of the combined depth/breadth score (Figure 4) align with the benchmarks of Table 1.

Although the multiple-choice KAPT is a valid instrument, in the future we would like to use **convergent methods** (e.g., essay, oral presentation, inclusion of material in senior-level capstone papers) to assess our students' mastery of a psychology knowledge-base. Such methods do not replace the KAPT, but complement it and provide convergent validity, providing a richer and more personal assessment of student knowledge base.

IV. Next Steps

Identify what needs to be done over the next few years.

- A. **Action Items:** Gather all of your currently active initiatives together here. This will include unfinished projects from section II (if any), new projects identified in section III.C (if any), and the work scheduled in the Multi-Year Plan for the coming year.
 1. Continued development of departmental **mission statement, program learning goals, and multi-year plan** (faculty member responsible: Tom

Fikes). Links to drafts of revised documents are provided in Part I of this report. We will continue to revise as necessary.

2. **Written and Oral Communication SLO** (target SLO for 2011-12; (faculty members responsible: Tom Fikes). The department has drafted a SLO. We are waiting to hear from PRC the results of their summer work on writing assessment, and will implement assessment for this SLO in our capstone courses (PSY-111, PSY-196, PSY-197/8) this year and refine the SLO as necessary.
 3. **May 2012 Departmental Meetings** (faculty member responsible: Tom Fikes). Focus on “closing the loop” for all SLOs assessed during previous 6-year cycle, and general self-assessment of department relative to WASC PLO rubric. Focus on planning next steps in increasing educational effectiveness based on data from previous cycle (2006-2012) and clarifying strategy of assessment for upcoming cycle.
 4. Completion of final **6-year report** (faculty member responsible: Tom Fikes). Report to be written during Summer 2012 and completed by September 2012.
- B. If needed, given the progress made this year and the due date for your 6 year report, update your Multi-Year Assessment Plan. Include a copy of the updated Multi-Year Assessment Plan as an appendix.

The psychology department 6-year report is due next year (September 2012). A revised multi-year assessment plan, incorporating the recently approved (April 2011) institutional learning goals and 6-year assessment cycle, is included as appendix D.

V. Appendices

- A. 2010 response from the PRC.
- B. Prompts or instruments used to collect data. KAPT available at:
<http://forms.westmont.edu/forms/academics/psychology/assessment/survey.php>
- C. Rubrics used to evaluate the data. (see Table 1, above)
- D. 2010-2011 Multi-year assessment plan
- E. 2010-2011 Curriculum Map
- F. *A Knowledge-Base Assessment Test for Undergraduate Psychology Majors* (2011)

To: Psychology Department
From: Program Review Committee (Alister Chapman)
Re: Psychology Department's Annual Assessment Update 1990-10
Date: December 8, 2010

The PRC thanks you for your ongoing work in assessment. You have done an excellent job of integrating assessment into your regular work, and you are evaluating student performance on a wide range of learning outcomes. Your May meetings have been a model of departmental collaboration, and you have strong plans for assessment work together in the coming year. You are also working to establish benchmarks for your work.

There are several ways in which we believe your assessment could be adjusted and become a better return for your department. This report will outline these, and conclude with some specific recommendations.

Mission Statement

Your mission statement does a good job of identifying your primary goals as a department. It is well aligned with the college's mission statement, It is rather unwieldy, however. We would encourage you to come up with a crisp, concise mission statement, from which a prospective student could get a sense of your department in two or three sentences.

Student Learning Outcomes

The Program Review Committee is currently working with departments to refine their Student Learning Outcomes in order to make them easier and more fruitful to assess. We are suggesting that departments have no more than five SLOs. At the moment, you have five categories with twenty-one SLOs (as per your rubrics). They are well aligned with your mission statement, but we would like you to trim them. As a department, you will want to have in mind some of greater detail contained in your current outcomes. But for students and external audiences, five short, crisp outcomes would be helpful. Another way to approach it would be to have more detailed programme goals that then find expression in five short SLOs, which may change over time.

A conversation with the Dean of Curriculum and Educational Effectiveness could be helpful here. You should also consult the resources available at:
http://www.westmont.edu/offices/institutional_portfolio/program_review/ProgramReview-FacultyResources.html

Action Items from Last Year's Report

Most of the work suggested in last year's PRC response is scheduled for this semester. We look forward to seeing more evidence that you are closing the assessment loop. Thank you for highlighting your collaborative work, and for the increased attention you have paid to benchmarks. The rubrics you provide in Appendix F represent a great deal of work, and are a major step forward.

2009-10 Focus

Again, you conducted assessment on an impressive range of your objectives, covering three of the five categories, with nine separate assessment exercises in seven different courses. The external evidence that you provide, namely the number of conference papers given and practicum supervisors reports in PSY196, strongly suggests that your students are performing at a high level. You are also doing useful in-course assessment, the best example here being the assessment of presentation skills conducted in PSY013 and PSY198. Here, you established specific criteria, compared results between two courses, and discussed benchmarks.

We have several suggestions for how to make your work even more indicative of how your students are doing on your desired outcomes for them.

- Continue to move away from the blunt instrument of grades. This was mentioned in last year's PRC response, and while there may not have been time to change this approach for last year's assessment work, the PRC hopes that the department will continue the move towards specific assessment of specific outcomes. Grades almost always reflect student performance on a variety of outcomes, which obscures how students are doing on the outcome in question.
- Focus on fewer outcomes and discuss them as a department. Despite your May meetings, your report still reads as though professors are conducting lots of different exercises in different classes, with little of the sort of collaboration that is more likely to lead to significant curricular and pedagogical changes. The Psychology department has led the way on this in the past, notably in your work on plagiarism in PSY001, and there is evidence that you plan to do more collaborative work this year. Focusing on one SLO per year should reduce the burden of assessment and allow you the time to work more closely together.
- Focus on your capstone courses. There is no need to assess student work in lots of different courses. If your students are achieving your goals for them by the time they finish your program, that is almost all you need to know. Occasional longitudinal studies are useful, but your assessment work could be streamlined by focusing on your capstone courses.
- For benchmarks, you should state what proportion of your students you wish to be performing at a particular level. For example, you might want 90% of your students' oral presentations to be either Effective or Distinguished. The tables you provide in your appendix are extremely useful rubrics, but they are not benchmarks.
- In many instances, it would have been helpful to disaggregate your data more. You did this in your assessment on oral presentations, although even here it would have been useful to have more detail on the distribution of student performance across your scale.

Focus for 2010-11

We appreciate the emphasis on collaboration in all that you propose to do this year. Your emphasis on benchmarks in PSY111 is great. In terms of SLOs, you are focusing on numbers 1, 3, and 4.

We would, however, encourage you to focus your assessment of your students' knowledge and their APA abilities in your capstone courses. These are the natural place to assess whether your majors have achieved what you hope for them. In addition, you should feel free to focus on only one of these two learning outcomes this year. It would be useful to know who is responsible for the different tasks.

Submission

Given your move to Winter Hall, the Dean of Curriculum and Educational Effectiveness granted you a month-long extension for submitting your report, to October 15. Your report arrived on November 16. In addition, please make sure to upload your report on to the Psychology folder of the PRC website.

Appendices

All present and correct. Thank you. The rubrics will need revision as you update your SLOs.

Archive

Please make sure that you continue to upload the relevant documents to the PRC archive, using the appropriate folders.

Conclusions

Again, thank you for the good work you are doing in assessment and in training psychology majors for fruitful work in the future. This report provides suggestions on how you could do your assessment work more efficiently, with greater benefit to your department. In particular, during the coming year we would like you to:

- Revise your mission statement.
- Revise your student learning outcomes.
- Focus on only one SLO for this year.
- Focus more of your assessment in your capstone courses.
- Take steps towards closing the assessment loop.

Please let the committee or the Dean for Curriculum and Educational Effectiveness know if you have any questions. Our desire is to work with you for the achieving of your goals.

**Psychology Department
MULTI-YEAR PLAN**

Outcomes	2007 - 2008	2008 - 2009¹	2009 - 2010	2010 - 2011	2011 - 2012²	2012 - 2013	Means of Assessment, Benchmark	Who is in charge?	How the loop will be closed /has been closed?
1. Improve Student's Writing Performance	X						Analysis of APA reports and instructor impressions in PSY-001, PSY-111, PSY-197/8, PSY-140	B. Smith	May 2008 dept. meeting discussions; review and revision of assignments, pedagogy; alignment across sections and lower/upper division courses
2. Reduce Plagiarism	X						Culmination of multi-year (2004-2008) analysis of student work using TurnItIn.com, esp. in PSY-001	B. Smith, T. Fikes	May 2009 dept meeting discussions; standardization of teaching on plagiarism, implementation of campus-wide plagiarism policy and pedagogical recommendations via interdepartmental task force; campus-wide availability of turnitin.com; this SLO represents a closing of the loop for SLO #1 above.
3. Values and Character		X					2008-09: <i>Openness to Experience</i> and <i>Integration of Christian Faith</i> were assessed in PSY-131 using writing prompt and newly-established rubrics; and in PSY-150 with writing assignment 2009-10: <i>Ethics</i> was assessed in PSY-196 and PSY-131 using writing	B. Smith	May 2009 and 2010 dept. meeting discussions

Comments/Reflections:

¹In 2008-2009, new Student Learning Outcomes and assessment benchmarks/rubrics were implemented based on prior year's program review and feedback from Program Review Committee

²In 2010-2011, a new institution-wide multi-year assessment plan, institutional learning goals, and other changes were introduced. In response, beginning in Fall 2011 the psychology department reorganized its previous student learning outcomes as program learning goals and began to construct one student learning outcome each year based on our program learning goals and in alignment with the institutional multi-year plan.

1. Adjust the Multi-Year Assessment Plan to your department six-year assessment cycle.
2. Align your program-level assessment with the [Institutional-level assessment](#) whenever possible: e.g., if your department has the Effective Communication/Writing outcome among your Program Learning Outcomes, this outcome should be assessed in 2011-2012 academic year unless your department assessed this particular outcome in 2010-2011. If your department has the outcome aligned with the Christian Understanding/ Practices /Affections ILO it should be assessed in 2012-2013 academic year, etc.

Psychology Department 2010-2011 Curriculum Map

Goals ¹	Knowledge Base	Scientific Research Methods and Skills	Written and Oral Communication	Values and Character	Applications
Learning Outcomes	<i>Students will demonstrate the ability to identify, recognize, or otherwise articulate key elements of content (e.g., core concepts, theories, and individuals) within a wide variety of areas in psychology.</i>	(TBD)	<i>Students will write efficiently, creatively, and competently using APA style in both theoretical/review and research report genres.</i>	(TBD)	(TBD)
Where are the learning Outcomes met? I Introduced D Developed M Mastered	Target courses include PSY-001 (I) PSY-1XX ² (D) PSY-111 ³ (M)	Target courses include PSY-001, 013 (I) PSY-1XXL ⁴ (D) PSY-197/8 ³ (M)	Target courses include PSY-001 (I) PSY-013 (D) PSY-111, 196/7/8 ³ (M)	Target courses include (TBD) PSY-196 ³ (M)	Target courses include (TBD) PSY-141 (D) PSY-196 ³ (M)
How are they assessed?	Direct: KAPT instrument ⁵	(TBD)	Direct: Writing Rubric ⁶ in capstone experience courses. Indirect: Alumni survey (TBD)	(TBD)	(TBD)

Benchmark	≥ 75% of graduating seniors scoring at or above the “Effective” level on combined score	(TBD)	Tentative: ≥ 75% of graduating seniors scoring at or above the “Effective” level of writing rubric on final writing assignment	(TBD)	(TBD)
Link to the Institutional Learning Outcomes ⁷	n/a	accurately evaluate the strength of evidence in support of a claim be able to access, evaluate, use and communicate information effectively and ethically	write effectively in various contexts effectively communicate orally in various contexts	know the content of the Bible and the central doctrines of the Christian faith and be able to relate this to other fields of inquiry engage effectively in life-long learning and civic responsibilities	demonstrate commitment to Christian service

Notes

¹ Goals are Psychology Department Program Learning Goals, available on assessment archive server. Based on learning goals recommended in *APA Guidelines for the Undergraduate Psychology Major* (2007)

² Only I and M target courses are listed for the Knowledge Base goal. The SLOs for this goal are developed in all of our upper-division courses.

³ PSY-111, 196, and 197/8 constitute the Psychology Capstone Experience.

⁴ Methods and skills are developed in all of our upper-division laboratory courses.

⁵ The KAPT is described in *A Knowledge-Base Assessment Test for Undergraduate Psychology Majors* (2011), available on assessment archive server.

⁶ Writing rubrics will be similar but varied for specific writing genre in the three capstone experience courses. Rubric to be developed during Fall 2011 based on feedback from PRC (rubric sample submitted June 2011).

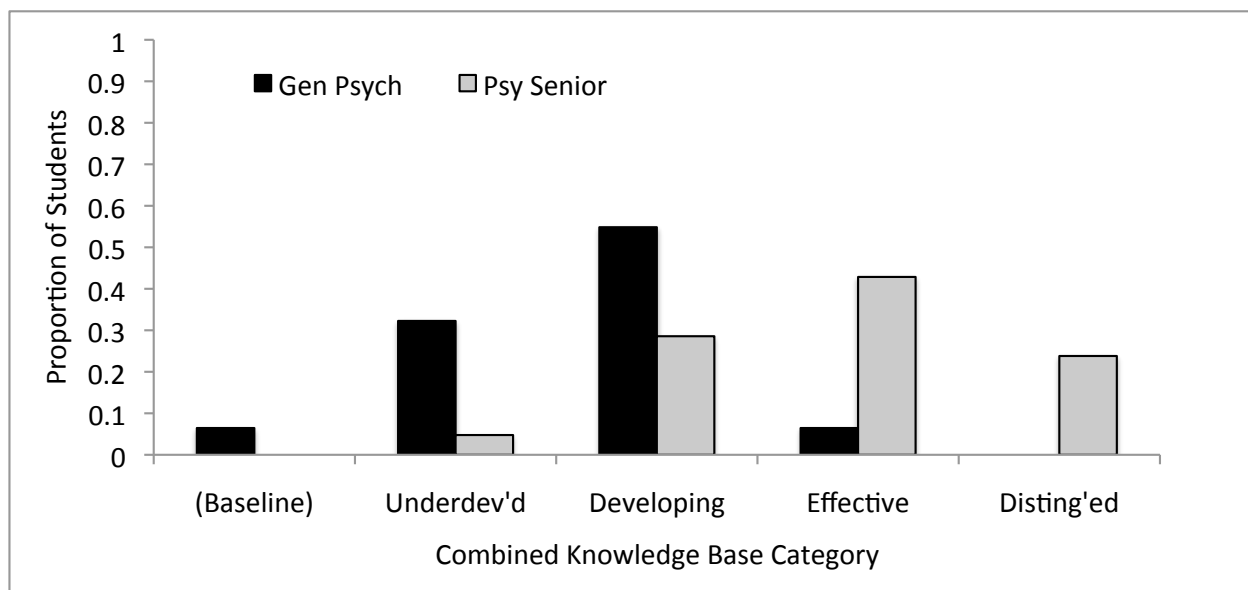
⁷ ILOs listed here were presented in the Program Review Committee document *Targeted Knowledge, Skills, Competence and Attitude for Assessment Cycle III: Institutional Learning Outcomes (ILOs)*

A Knowledge-Base Assessment Test for Undergraduate Psychology Majors

Department of Psychology
Westmont College

Abstract

A 101-item multiple-choice test covering 18 traditional subdisciplines of psychology is described. The test, along with a scoring rubric with benchmarks based on a combined measure of overall score and breadth of proficiency across subdiscipline scales, was developed to aid in assessing a knowledge-base student learning outcome (see below) for senior undergraduate psychology majors at Westmont College. The test was administered to 31 students completing an introductory General Psychology course and 21 graduating senior psychology majors at the end of the spring term of 2011. The test showed high reliability, and criterion validity when correlated with GPA in the psychology major. Psychology seniors scored significantly higher on average than General Psychology students, and outperformed the General Psychology students on 17 of the 18 subscales. Frequency distributions for the two groups across the 5-category scoring rubric showed developmental patterns and levels of mastery appropriate for the groups (see Figure below).



Knowledge-Base Student Learning Outcome: Students will be able to identify, recognize, or otherwise articulate key elements of content (e.g., core concepts, theories, and individuals) within a wide variety of areas in psychology.

A Knowledge-Base Assessment Test for Undergraduate Psychology Majors

The Knowledge-base Assessment of Psychology Test (KAPT) was developed to assess knowledge of undergraduate psychology majors at Westmont College across a wide variety of disciplinary subspecialties in psychology. The departmental student learning outcome for our knowledge-base goal was revised, and a rubric with qualitative descriptors and quantitative benchmarks based on the test was constructed. This brief report describes the use of the test and rubric at the end of the Spring 2011 semester with two student populations: students in an introductory psychology course, and graduating senior psychology majors. We report reliability and validity estimates, as well as summary score distributions for the two samples. The revised student learning outcome, which complements departmental student learning outcomes in methods and skills, writing, values and character, and application, is:

***Knowledge-Base Student Learning Outcome:** Students will be able to identify, recognize, or otherwise articulate key elements of content (e.g., core concepts, theories, and individuals) within a wide variety of areas in psychology.*

Method

Participants

Twenty-one of 30 graduating psychology majors (15 women, 6 men) participated at the request of one of the psychology department's co-chairs. They were offered pizza and dessert as an incentive and were told that the top scorer would win a prize. In addition, thirty-one general Psychology students (16 women, 15 men) participated for partial fulfillment of a course requirement. This latter group of students was chosen because of its relative inexperience in the discipline of psychology. Both groups were assessed at the end of the semester, Spring, 2011.

Knowledge-based Assessment Test (KAPT)

The KAPT was composed of 102 multiple choice items that were chosen from department members' General Psychology tests. One item had no correct answer, so was thrown out. Therefore, the total number of items used in this assessment was 101. Each item had 4 possible answers.

Standard disciplinary subspecialties were assessed: History, Ethics, Methods, Neuroscience, Sensation and Perception, Learning, Attention and Memory, Thinking, Intelligence, Mind and Consciousness, Motivation and Emotion, Health and Well-Being, Human Development, Personality, Social Psychology, Psychological Disorders, and Treatments for Psychological Disorders. In addition, aspects of APA formatting and writing styles were included for a total of 18 subscales. The number of items for each subscale ranged from 4 to 6. Fourteen of these subscales assessed knowledge that is the primary focus of an upper-division psychology course at Westmont.

The multiple choice items were presented on-line such that an answer could be selected by clicking a radio button.

Rubric

Table 1 presents the scoring rubric for the KAPT, including qualitative descriptors for each level of development and separate benchmarks for overall KAPT score and breadth based on subscale performance. Rubric categories are based on Dunn, McCarthy, Baker, Halonen, and Hill (2007), who describe benchmarks for undergraduate psychology programs.

Table 1. Knowledge-base rubric and benchmarks based on Knowledge-base Assessment of Psychology Test (KAPT).

	(Baseline) 0	Underdeveloped 1	Developing 2	Effective 3	Distinguished 4
Knowledge Base	Chance recognition of key elements of content across all major traditional subsdisciplines	Poor recognition of key elements of content across all major traditional subsdisciplines	Good recognition of key elements in a small number of major traditional subsdisciplines	Good recognition of key elements across a wide variety of major traditional subsdisciplines	Excellent recognition of key elements across a wide variety of major traditional subsdisciplines
<i>Benchmarks for overall performance</i>	<30% on KAPT	30-50% on KAPT	50-75% on KAPT	75-85% on KAPT	85% or better on KAPT
<i>Benchmarks for breadth</i>	80% or better on fewer than 2 KAPT subscales for which Westmont courses are offered	80% or better on 2-3 KAPT subscales for which Westmont courses are offered	80% or better on 4-5 KAPT subscales for which Westmont courses are offered	80% or better on 6-7 KAPT subscales for which Westmont courses are offered	80% or better on 8 or more KAPT subscales for which Westmont courses are offered

Procedures

Graduating seniors were contacted by email and invited to take the KAPT. They were told that assessing students' knowledge acquisition and retention was part of the department's ongoing efforts to improve the psychology curriculum at Westmont. General Psychology students were also notified by email about the possibility of earning a research credit by taking the KAPT. Most seniors and all General Psychology students signed up for one of a number of evening sessions and, after receiving a few instructions, started the self-paced test together. The time to complete the test ranged from approximately 15 to 65 minutes.

Those seniors who did not sign up for a session the first or second time they were asked, and seniors who had graduated the previous semester, were sent a web link so they could complete the test on their own. Two seniors completed the test in this way.

Results

Reliability

The reliability of the KAPT was estimated using a split-half method. A score based on odd-numbered items was correlated with even-numbered items, yielding a strong positive correlation, $r=.89$, $p<.01$. Because items on the KAPT are grouped according to subscale, this result suggests both a high overall reliability for the test as well as good reliability for the subscales.

Validity

Using the KAPT scores for our Psychology seniors, criterion validity was estimated in two ways. First, the overall percentage KAPT score was correlated with overall GPA in Psychology. This yielded a small positive correlation, $r=.26$, $p=n.s.$. Second, a GPA in Psychology was correlated with the combined rubric score described in Table 2, which takes into consideration both the overall KAPT score and the number of subscales on which the student scores at or above 80%. This measure correlated with overall Psychology GPA strongly, $r=.68$, $p<.01$, suggesting high criterion validity. Results of individual subscales indicated that Psychology seniors scored higher on average than General Psychology students on 17 of the 18 subscales, suggesting good validity for the subscales as well.

Score Distribution

Scores for each of the 18 subscales, disaggregated by student group and gender, are given in the appendix. Figures and tables in this section present summaries of overall score as a function of student group and gender (Figure 1) and frequency distributions for overall score and subscale proficiency.

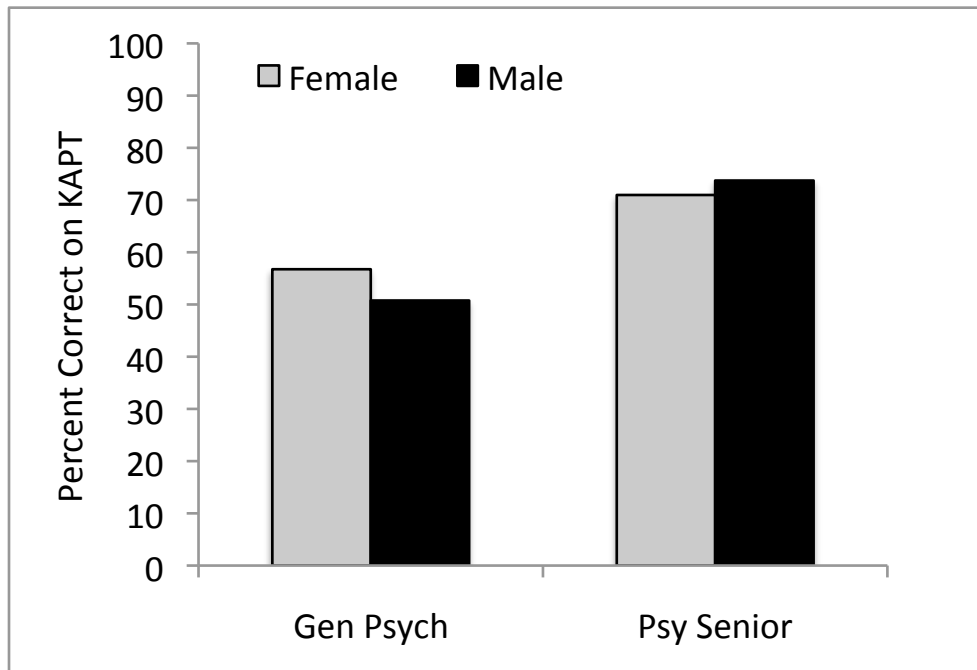


Figure 1. Overall KAPT score for General Psychology students (n=31) and Psychology seniors (n=21), disaggregated by gender. A one-tailed, independent-samples t-test indicated that the mean scores Psychology seniors was significantly greater than that of General Psychology students, $t(34)=6.32, p<.01$.

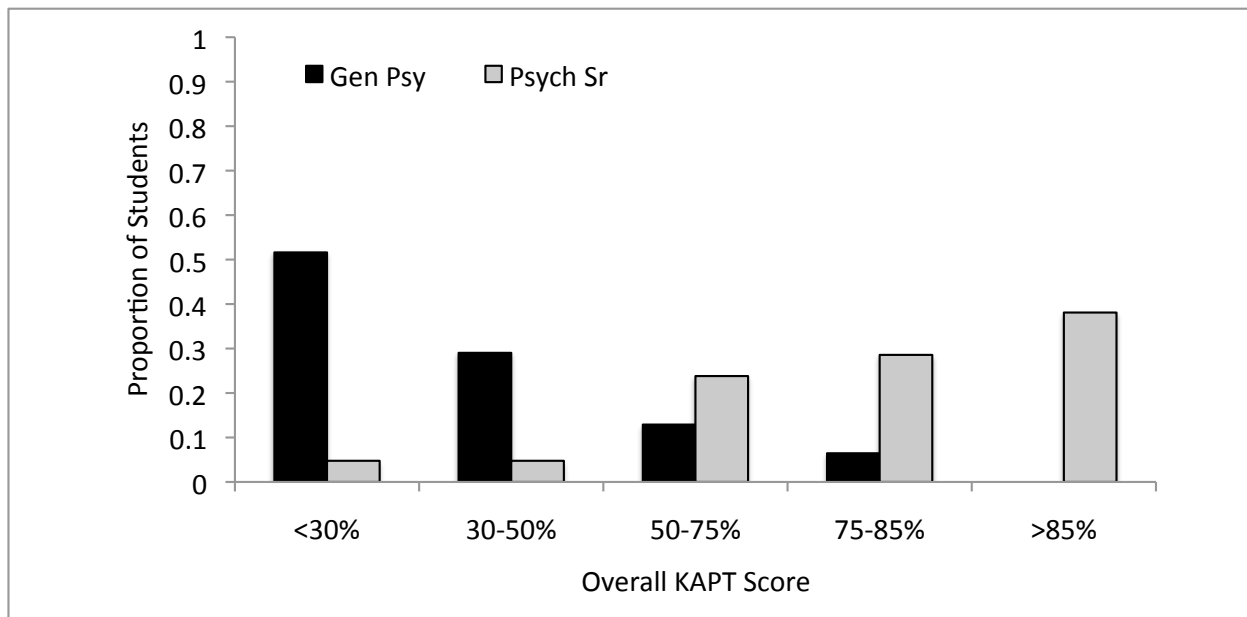


Figure 2. Distribution of overall KAPT score for General Psychology students and Psychology seniors, showing higher distribution for Psychology seniors.

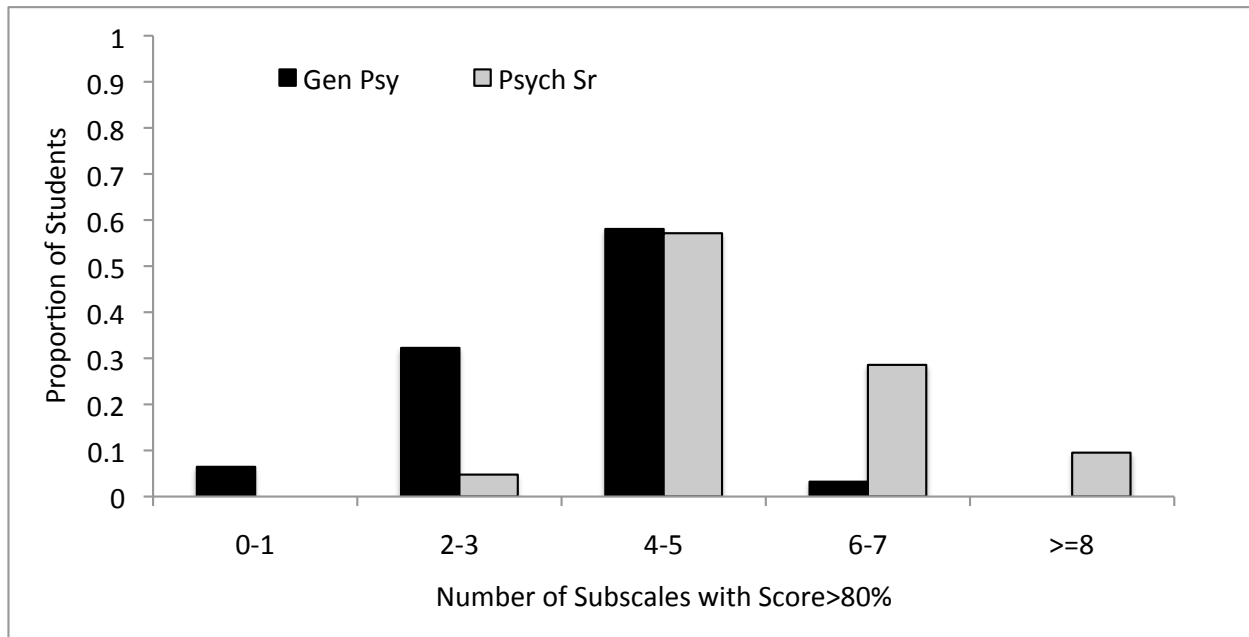


Figure 3. Proportions of General Psychology students and Psychology seniors scoring at or above 80% on specified numbers of KAPT subscales. The KAPT comprises 18 subscales, each assessing knowledge in a different subdiscipline of psychology; 14 of these subdisciplines are primary foci of upper-division Westmont psychology courses. Only subscales for which Westmont courses are offered were counted. Distribution for Psychology seniors is on average higher.

Table 2. Knowledge-Base results combining overall score and breadth.

Student Group	Overall Score	Breadth				
		0-1	2-3	4-5	6-7	>=8
Gen Psych	<30%	2	8	6	0	0
	30-50%	0	2	7	0	0
	50-75%	0	0	4	0	0
	75-85%	0	0	1	1	0
	>85%	0	0	0	0	0
Psy Senior	<30%	0	1	0	0	0
	30-50%	0	0	1	0	0
	50-75%	0	0	5	0	0
	75-85%	0	0	3	3	0
	>85%	0	0	3	3	2

Legend: (Baseline) Underdev'd Developing Effective Disting'ed

Note: Numbers in the table represent number of students falling in each Score-Breadth intersection. Colored regions represent Score-Breadth intersections corresponding to common Knowledge-Base rubric categories. Breadth categories are as described in Figure 3.

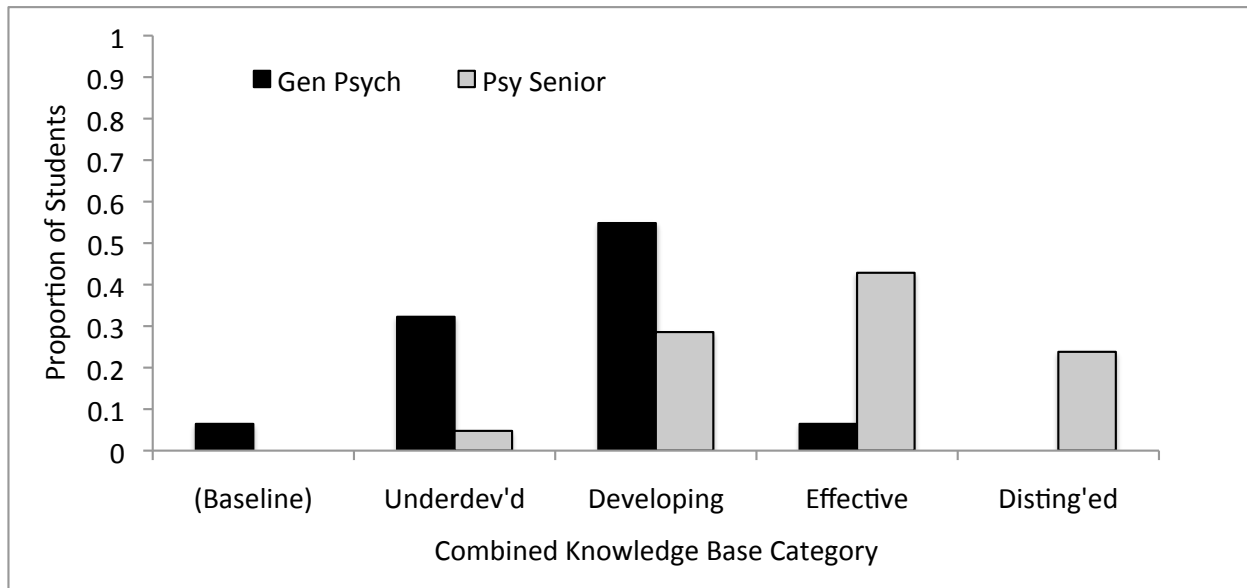


Figure 4. Distribution of General Psychology students and Psychology seniors across categories of the Knowledge Base rubric (Table 1). Benchmarks for assigning students to categories are based on a combination of overall KAPT score and a “breadth” index. Benchmarks are described in Table 1. The strategy for combining the two measures and the resulting frequencies are shown in Table 2. Distribution of Psychology seniors is on average higher.

Conclusions

- **Psychology seniors perform better than General Psychology students**, both overall and across a breadth of subdisciplines; 67% of seniors perform at Effective or Distinguished levels compared to only 6% of General Psychology students.
 - Psychology seniors perform better on overall KAPT score
 - Psychology seniors perform better on 17 of the 18 subscales
- The scoring rubric combining overall performance and breadth was correlated with psychology GPA more highly than overall performance alone, suggesting that the **development of a disciplinary knowledge-base involves not only depth but breadth as well.**
- For Psychology seniors, no student scored in the Baseline category; however, we would like to see no graduating seniors at the Underdeveloped level, **we would like to see more students in the Distinguished category**, and fewer in the Developing category. In particular,
 - we would like to see more of our graduating seniors doing better on multiple subscales, i.e., shifting the Psychology seniors distribution in Figure 3 to the right; and
 - we would like to see the overall KAPT score distribution for Psychology seniors shifted to the right in Figure 2 as well.
- Although the multiple-choice KAPT is a valid instrument, in the future we would like to use convergent methods (e.g., essay, oral presentation, inclusion of material in senior-level capstone papers) to assess our students’ mastery of a psychology knowledge-base.

References

Dunn, D.S., McCarthy, M.A., Baker, S., Halonen, J.S., & Hill, G.W. IV (2007). Quality benchmarks in undergraduate psychology programs. *American Psychologist*, 62 (7), 650-670. DOI: 10.1037/0003-066X.62.7.650