

# Scientist-Practitioner Interests in a Psychology Communication Course

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## Abstract

Students enrolled in two sections of an undergraduate psychology communication course ( $n = 34$ ) completed the Scientist-Practitioner Inventory at the beginning and end of the semester. As predicted, students showed a stronger preference for practice-related areas of psychology than science-related areas of psychology at both the beginning and end of the course. Changes in student interests were also investigated. Student interests in science- and practice-related areas and subareas remained relatively stable and were not significantly different from the beginning to the end of the semester. Future career path choices of students and undergraduate program curriculum are discussed.

## Introduction

This scientist-practitioner model, more recently conceptualized as the Boulder model, adheres to the belief that students, perhaps especially clinical students, should be taught the fundamentals of behavior through explanations of psychology as a logical, positivist science (Merlo, Collins, & Bernstein, 2008; Wheeler & Elliott, 2008).

The curriculum of the undergraduate psychology program at Coastal Carolina University (CCU) presents for students the choice of BA or BS requirements; both emphases, however, present psychology as a rigorous empirical science and require original research of all degree-seekers. Students in both instances are prepared for the research experience (and data presentation and interpretation in all content classes, as well) by a required, course sequence including:

- \* introductory psychology;
- \* science communication;
- \* statistics;
- \* research design;
- \* advanced statistics or tests and measurements; and,
- \* senior-level, original research project class.

The science communication class is a recent addition to the early portion of the research sequence and has provided an opportunity for a psychology program to closely examine, and possibly shape, a student's worldview of psychology as a discipline firmly grounded in science.

Few studies have investigated the scientist-practitioner interests of undergraduate psychology students, although informal observations suggest that practitioner interests are predominant over research interests for undergraduates in their choices of graduate school programs. This report describes and examines career specialty choices of students enrolled in a science communication class before and after exposure to a series of assignments structured to present psychology as a thriving science- and research-based discipline.

## Current Study Hypotheses

Consistent with previous research, we predicted undergraduate students enrolled in a psychology communication course would report stronger preference for practice-related areas of psychology over science-related areas of psychology at both the beginning and end of the course. In addition, we believed students would show increases in science-related interest areas at the end of the course.

## Method

**Participants.** Thirty-four students from a medium-sized, public university in the Southeastern United States enrolled in two sections of an undergraduate communication course served as participants in this research investigation. Both course sections were taught by the first author. The racial distribution of the sample included 83.3% Caucasian, 14.6% African American, and 2.1% Hispanic. The average age of the participants was 20.5 years ( $SD = 3.71$ , range = 18-40) and all (100%) were psychology majors. Most of the students enrolled in the course were women (79.4%), with only seven males (20.6%), including freshmen (5.9%), sophomore (50%), and juniors (32.4%).

**Communication Course.** The psychology communication course explored the roles of psychology as a science in oral and written communication, including developing communication skills through examination of the literature in the field. Freshmen and sophomores typically complete the course after completing Introduction to Psychology and before embarking on statistics, research methods, and independent research through additional classes and with individual faculty persons. Assignments of the class are purposefully constructed to address specific issues of research.

**Materials & Procedure.** Students completed the Scientist-Practitioner Inventory (SPI; Leong & Zacher, 1991) at the beginning and the end of the semester. All students verbally agreed to have their responses included in this investigation. The SPI includes 42 questions pertaining to interests in the science and practice of psychology. The inventory is divided into sub areas of science (research activities, teaching/guiding/ editing, academic ideas, statistics and design) and practice (therapy activities, clinical expert/ consultant, tests and interpretation) interests. Participants rated their interest in each scale item using a 5-point Likert scale.

Participant age, class rank, and major were collected on a demographic questionnaire and final earned course grade was used in analyses.

## Results

At the beginning of the semester, the class reported a significantly greater interest in practice-related activities over science-related activities,  $t(33)=7.47$ ,  $p<.001$ ,  $d=1.88$ ,  $M_{\text{practice}}=3.65$  and  $M_{\text{science}}=2.78$  ( $SDs=.50$  and  $.69$ , respectively). At the end of the semester, the class continued to report a significantly greater interest in practice-related activities over science-related activities,  $t(33)=6.18$ ,  $p<.001$ ,  $d=1.54$ ,  $M_{\text{practice}}=3.56$  and  $M_{\text{science}}=2.76$  ( $SDs=.57$  and  $.76$ , respectively).

From the beginning to the end of the course, students reported no significant interest changes (see Table).

We were also interested in how the earned course grades was related to changes in SPI interest areas. Almost all students earned either an A or a B in the course. Difference scores (post-course minus pre-course) were used to determine the student interest changes in science and practice from the beginning to the end of the course. Students who earned an A in the course did not report greater changes in interests than those who earned a B in the course on either the scientist,  $t(30)=.19$ ,  $p=.85$ , or the practitioner,  $t(30)=.61$ ,  $p=.55$ , interest areas.

Table. Mean Pre and Post Scientist-Practitioner Inventory Responses by Science and Practice Interest Overall and Sub Areas

Area	Pre M (SD)	Post M (SD)
SCIENCE OVERALL	2.78 (.69)	2.76 (.76)
Research Activities	2.94 (.74)	2.94 (.81)
Teaching/Guiding/Editing	2.51 (.74)	2.54 (.91)
Academic Ideas	2.80 (.86)	2.67 (.92)
Statistics and Design	2.67 (.86)	2.60 (.96)
PRACTICE OVERALL	3.65 (.50)	3.56 (.57)
Therapy Activities	3.80 (.57)	3.76 (.64)
Clinical Expert/Consultant	3.32 (.55)	3.37 (.63)
Tests and Interpretation*	3.21 (.61)	3.03 (.77)

Note. \* =  $p<.10$ . 1=very low interest, 2=low interest, 3=unsure, 4=high interest, 5=very high interest.

## Discussion

The results supported the hypothesis that students enrolled in a psychology communication course would rate practice-related areas in psychology more favorably than science-related areas. However, we did not find any significant changes in science or practice-related interests from the beginning of the term to the end of the term. The only marginally significant change was found in the practice interest subarea of tests and interpretation, which was actually reduced interest. In addition, students who earned As in the course did not differ in terms of their interest changes from those who earned Bs in the course.

Students enrolled in our department heavily prefer the practice-related areas of clinical and counseling psychology, so it is not surprising to see such a strong preference for practice interest areas over science interest areas on the SPI. The current findings were consistent with Pettijohn and Ahmed's (2009) investigation of a research methods course at CCU, finding greater student interest in practice than science overall and a more positive change in the science interest areas for those who earned high marks in the course.

Limitations of this research include a small sample size of predominately women, and the possibility that students did not fully comprehend the interest areas they rated.

Psychology programs may want to measure interests in science and practice areas of psychology at multiple stages across the curriculum to follow changes in students and to address assessment.

## Selected References

- Leong, F., & Zacher, P. (1991). Development and validation of the Scientist-Practitioner Inventory for psychology. *Journal of Counseling Psychology*, 38, 331-341.
- Pettijohn, T. F. II, & Ahmed, S. F. (2009). Scientist-practitioner interest changes and course performance in an undergraduate research methods psychology course. *Proceedings of the International Conference of Education, Research and Innovation*, 2009, 448-452.

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