ABSTRACT
        For many practitioners, reading about or doing
research is not seen as a viable means by which to learn about human
behavior. In reaction to the non-utility view of research, a number
of writers have questioned the validity of the scientist-practitioner
model, or reinterpreted the model, or asked psychologists to
reconsider the philosophy of science. Another alternative is for
educators to examine and evaluate their training goals. Students may
not be adopting research in their behavior repertoire and may not be
acquiring a philosophical perspective on the value of research. There
are several methods for training doctoral students in counseling
psychology in the use of research findings. Research training could
be improved by: (1) teaching applications; (2) teaching how to
retrieve research findings; (3) improving comprehension of research;
(4) encouraging regular reading of research; (5) emphasizing
preparation for doctoral comprehensive examinations; (6) developing
research practica; and (7) developing research teams. Research and
the scientific approach can be useful to a broad range of
professionals within counseling psychology. If research is perceived
as irrelevant, this may reflect on the quality of the research or on
ineffective training. Educators must examine the effectiveness of the
research training they receive and incorporate into their
professional behavior, and be willing to restructure training
programs to help students base their practice in and on research. A
four-page list of references concludes the document. (NRB)

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Research Training for Counselors:

Philosophy and Techniques

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Running head: RESEARCH TRAINING

Abstract #1

There is evidence that research is presently seen by many counselors as irrelevant. Some approaches are discussed which will make research more relevant for practitioners.

Abstract #2

A number of writers have pointed out the non-utility of research to professionals in counseling. The authors of this paper agree that the presen_ model of training is inadequate, but point out that if we restructure our training programs to help students base their practice in and on research rather than the doing of research that we will improve both research and practice. A series of suggestions are given for improving the teaching of research applications for counseling practice.

Research Training for Counselors:

Philosophy and Techniques

An increasing number of writers have questioned the value of psychological research for practitioners (e.g. Goldman, 1976; 1977; Levine, 1974; Raush, 1974). Likewise, the effectiveness of training counseling practitioners in conducting research has been strongly questioned. Gelso (1979) noted that the "modal counseling psychologist publishes no research following the attainment of the doctoral degree" (p. 25). Carkuff suggested a more embarrassing estimate: the last research project of 95-99% of most graduates is the doctoral dissertation. In short, for many practitioners either reading about or doing research is not perceived as a viable means by which to learn about human behavior.

There have been a number of reactions to this perceived non-utility of research. One reaction has been to argue that research training is not necessary for the practitioner (e.g., Frank, 1984; Hughes, 1952; Meehl, 1971). In essence, the validity of the scientist-practitioner model is under question (e.g., Albee, 1970; Frank, 1984; Strupp, 1976, 1982). While the current models of educating doctoral students about research may be inadequate, Meltzoff (1984) makes a convincing argument that eliminating research training would adversely affect professional psychology and the vitality of the field.

A second reaction has been to reinterpret the Boulder Model of "The scientist-practitioner" (Frank, 1984). Frank suggests that in our competition with psychiatry the role of psychologist as a researcher needed to be stressed and it was Skakow's (1945) philosophy that students needed to be trained to do research that was influencial at the Boulder Conference. He indicates that it may be impossible to train clinicians as researchers but that we can train them to base their practice in and on research findings.

A third reaction has been to ask psychologists to reconsider the philosophy of science from which the present models of research were developed (e.g., Harmon, 1982; Howard, 1984; Polkinghorne, 1984). They feel that our present research models which grew out of the old conception of physical science research do not provide the necessary constructs by which research can be done which will be of use to practitioners. In this vein, Gadlin and Ingle (1975) suggest that, "We ought to begin with a reversal of the present emphasis: Psychology should initially address itself to phenomena, not methodology. Rather than selecting for research those phenomena suited to our methods, we ought to shape and develop our methods to fit phenomena."

Another alternative is for educators to closely examine and evaluate their training goals. Perhaps the data reflecting the perceived non-utility of research is not a reflection on the inadequacy of the scientist-practitioner model as much as it is on

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how the Boulder Model is interpreted and subsequently the training
students receive. Perhaps the training students receive is simply
not becoming a part of their behavior repertoire. The lack of
research related activities are not due to the lack of opportunity
or the need to answer questions in their jobs, it because they
lack techniques appropriate to their employment setting. In
addition, it is questionable whether students acquire a
philosophical outlook which will help them to perceive research as
a problem solving tool as a practitioner, evaluator, or
researcher. It is interesting to note that relatively little
attention has been given in the literature to the examination of
the research training of graduate students in counseling
psychology. This dearth is in stark contrast to the plentiful
research on training practitioners within counseling psychology
(e.g., Bartlett, 1983; Ford, 1979; Hansen, Robins, & Grimes,
1982). In some respects, graduates who later claim that research
and research methods are irrelevant to their work may actually be
reflecting the ineffectiveness and irrelevancy of their training.

Students in any doctoral program differ considerably in terms
of where they might be on the scientist-practitioner continuum.
For example, there is typically a group of students who have
considerable interest in and potential as researchers; they will
learn and apply the traditional research methods rather easily.
The other group, the potential practitioners, during their

training may pay lip service to research as being important but upon graduation they will not do research, will not read the journals, and will not see how research is useful to them or to their clients. The research training they received will not be of much value to them. It is with this group in particular that alternative instructional approaches are needed if they are to use effectively research methods and findings in their ongoing work as psychologists.

The purpose of this article is to suggest some methods and techniques for training doctoral students in counseling psychology in the use of research findings. To do this we need to examine not only the training that students receive in research courses, but also their applied, practitioner training as well. We need to seek to integrate the two approaches. Ideally this will lead to the matching of appropriate types of research training to the needs of students so that their training is relevant and applicable to their future job duties.

We will discuss the following ways to improve research training: (a) teach applications, (b) teach how to retrieve research findings, (c) improve comprehension of research, (d) encourage regular reading of research, (e) emphasize preparation for comprehensives, (f) develop research practicum, and (g) develop research teams.

Teach applications. One instructional approach in teaching research methods may be to develop different research training

goals to match the interests and potential of different students. In particular, it may be important to emphasize research skills which are most functional in the setting which the graduate will be employed. For the more practitioner oriented students, this implies teaching research methods with more of an applied emphasis, and philosophically from a problem solving perspective. In addition, educators should not assume that students will readily see connections between research and the solutions to practical and applied problems. Therefore one of our goals should be to help students in the early stages of their training learn the skills necessary to make these connections.

Likewise, an instructional approach in teaching courses in counseling methods or assessment may be to increase the emphasis on using research as a means of answering real-life problems. For example, a practicum student encounters a client problem that he or she knows relatively little about, let's say bulimia. What percentage of the time are trainees referred to use the research literature as a problem solving tool to facilitate their assessment or interventions with such client problems? Our impression is that this happens relatively infrequently (Heppner & Anderson, 1985). Thus, it may be essential to examine what students learn about the utility of research in the practice oriented courses. Stern (1984) proposed that the clinical courses become the focus for teaching students how to use a research

approach to their questions. The emphasis in these courses would be not on learning facts or theories but on the development of active problem solving, process skills, "such as the ability to (a) criticize and integrate a body of research literature, (b) evaluate, compare, and integrate psychological theories, (c) apply different conceptual frameworks in analyzing a social or clinical problem, and (d) imagine innovative applications of existing knowledge.

The main point is that in teaching both research and counseling methods educators may need to emphasize the applications of research and research methodologies to the real-life problems confronting the professional. Applying research to solve problems is a complex task, and educators may be leaving too much of this higher level of learning up to chance.

Retrieval of Research Information. With the introduction of computers, it has become much easier to find information on a topic. To do this, however, the student needs to have information about retrieval sources and know the methods to use in collecting and interpreting the information. In particular, students should be familiar with a wide variety of resources, such as: (a) Educational Resources Information Center (ERIC), which includes both the Current Index to Journals in Education (CIJE) and Research in Education (RIE), (b) Education Index, (c) Psychological Abstracts, and the (d) Social Sciences Citation

Index (SSCI). In addition, students should have some knowledge of computer assisted literature searchers, such as Lit-Quest. In short, all graduate students should probably receive training in the use of information retrieval systems.

Comprehension of Research. A common criticism is that research articles are overly technical and complex, as well as too time consuming to read and digest. Comprehension may be especially difficult when students are unfamiliar with the different type of research across journals. Thus, a partial solution may be to enhance students' comprehension and appreciation of research. Some evidence exists which suggests that planned instruction designed to assist students in comprehending research articles resulted in a higher frequency of reading published research and more favorable attitudes toward research (Buche & Glover, 1980). Exposing students to the best of what has been done may be one way of making them aware of important research investigations. If time has shown certain works to be important, then these studies should be more useful than a random sample of publications. Heesacker, Heppner and Rogers (1982) provide a list of classics and emerging classics in Counseling Psychology. Another approach would be to suggest that students read those journals which have been found to be of most help to large number of practitioners. Tryon (1983) provides a list of professional publications of most use to full time private

practitioners. In short, one approach to the comprehension
problem is to help students read material that may result in
maximum gain, as opposed to allow their selection of reading to be
almost random.

Regular reading of research. Carskadon (1978) used "Thrillers
among the Journals" as a technique to increase graduate students
reading of research. He had them look through the journals each
week and read two articles of their own choosing. They were also
encouraged to photocopy articles they thought were of particular
value to share with others. One semester after the course ended,
82% of the students reported that they had continued to do free
reading in the journals and all of these students felt they were
doing more reading in the journals then they would otherwise have
done.

Another approach would be to help students become conscious
consumers of research. Brender (1982) instructed undergraduates
to keep a record or log of their observations on everyday
behavior. He then helped these students make connections between
a specific behavior and academic psychology. It would seem
appropriate to use a similar system with graduate students. They
could be asked to keep a log of problems that they were having
with clients or of observations of problematic client behavior or
dynamics. These would then become the basis for finding research
articles which helped explain or cast light upon the observations

which had been recorded. For example, in a human sexuality class
for sex therapists, the first author has the students pick a
sexual problem, (e.g., sex and the handicapped) choose three
research articles which apply to it, and write a short
interpretative review showing how the material in the articles is
applicable.

Doctoral Comprehensive Examinations. The stated reasons that
departments give for using comprehensives vary but they could
become more a part of the training in the application and use of
research findings. Anderson, Krauskopf, Rogers & Neal (1984)
discuss the various possible uses of comprehensives and point out
how the preparation for comprehensives can be a way of helping
students to look at how subjects are interrelated and how material
from one area can be used to solve problems in another area. If
students prepare answers to questions in preparation for the
comprehensive examination, these questions can focus on how the
recent research literature can be used to achieve a better
understanding of problems within the field. A good comprehensive
question need not ask for final answers but for a view of how
explanations can be based on a knowledge of the research
literature.

Research Practica. Whereas counseling practica experiences
are regularly scheduled courses in almost all doctoral programs,
relatively fewer structured research experiences are designed into

students' programs. A number of different kinds of research practica might be made possible. For example, Nevid and Metlay (1982) designed a program for experimental students which consisted of five consecutively scheduled practica courses. These courses began in the student's second year of study, and were designed to provide students with exposure to the different aspects of applied/evaluative research in community agencies. The students were taught design and implementation of field studies, program evaluatic , data analysis, team participation, as well as verbal and written communication of research results. These experiences introduced the students to specific approaches to researching problems which actually exist in community agencies.

The important function served by research practica would be structured opportunities to learn and apply research methodologies to a wide range of research situacions, such as field studies, program evaluation, experimental studies, and analogue investigations.

Research Teams. Stockton and Hulse (1983) report on an apprenticeship training program which emphasizes collaboration between graduate students and professors on a topic which the professor is currently involved. In the first semester, the students enroll in a graduate course in which they serve as logistical support staff for the research project. In the second semester, they engage in more advanced activities such as planning

and implementing their own studies. This allows students to share a participant pool, discuss common concerns and have access to consultations on research problems.

Dillon and Malott (1981) report that research teams result in more students completing their degrees and to finishing them more quickly. In particular, they developed an intensive supervision system which involved weekly: (a) specification of research tasks and performance standards, (b) meetings with a supervisor, (c) deadlines, (d) feedback, and (e) incentives. This system resulted in a greater percentage of students graduating in a shorter period of time with research of the same quality as that produced by students using a more traditional approach.

Our own experience working with research teams suggests that the more closely involved students are allowed to become in an instructor's own research, the more likely they are to not only publish but also become sophisticated about how to make appropriate use of the research findings of others. Students, who under other circumstances might not become involved in research, do become involved and subsequently show an interest in finding answers to researchable questions. In addition, students have the opportunity to interact with role models who are themselves struggling with design and data collection problems, revisions, false starts, intuitive hunches, and letters of rejection, as well as engaged in a process which is for the investigator personally

rewarding and entertaining. Thus, research teams can not only result in technical learning about research methods but also about the personal satisfactions and struggles within the researcher.

Conclusion

We believe that research and the scientific approach can be useful to a broad range of professionals within counseling psychology. If research is perceived as irrelevant, then this may reflect on the quality of the research or on ineffective training of the consumer. While there may be a number of causes (see Gelso, 1979, 1985; Heppner & Anderson, 1985; Howard, 1985), it seems appropriate that educators examine the effectiveness of the research training that all of them receive and incorporate into their professional behavior. This article suggests a number of approaches that could be used to enhance the utility of research and research methods. A major issue within the solution to this complex problem lies with the educators; significant progress can not be made until educators carefully examine the products of their work.

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