Current Status and Future Directions of Educational Psychology as a Discipline

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Over the years, educational psychology has had perhaps more than its share of self-evaluation. As noted in 1967 by the Division 15 historian, Robert E. Grindern, "the saga of Division 15 is unlike that of any other in the American Psychological Association. The Division has been treated most often as a left-over. It has provoked such vigorous peeks at its apparent oddity that, except for the resourcefulness of a hardy few, it would have been abolished in the 1950's."

Since that time, the Division has grown considerably in both size and influence. Yet educational psychology still has not developed a well-defined image. The duties of Ph.D.-level educational psychologists are highly varied and are as likely to involve general administrative responsibilities as scholarship or professional activities. Research in the field sometimes lacks focus; it often blindly follows a Fisherian research methodology designed for agriculture, without asking what the basic problems are and how they might best be answered.

Fortunately, however, educational psychology is currently undergoing a renaissance of sorts. Consequently, there has been a growing conviction on the part of many educational psychologists that the field must begin to redefine its image as a discipline if it is to contribute significantly to the solution of educational problems, and must divorce itself from the view that educational psychology is just "psychology applied to education."

Having thoughts of this sort in mind, the Executive Committee of Division 15, under President John Feldhusen, authorized the formation of an ad hoc committee on the "Current Status and Future Directions of Educational Psychology as a Discipline" at the Executive Committee meeting in fall 1974.** The committee was charged with the task of conducting an inquiry to clarify and reassess the role of educational psychology as a discipline. Incoming Presidents Wilbert J. McKeachie and Ellis B. Page lent their continuing support.

The committee recognized almost immediately that in order to achieve its goals, the scope of its activities would have to be limited. Indeed, any committee undertaking such as this poses serious dilemmas. On the one hand, the committee felt that the report should be as specific as possible and should avoid ba-

nalties. On the other hand, we did not want to take an unconstructive, critical approach. We wanted to encourage educational psychologists to think about both the good and the bad in their field, and even more importantly, to do something about making their discipline better. (Considerable evidence might be cited to justify the conclusion that all is well with the field. that educational psychologists are good, and that our only major problem is that the rest of the world does not sufficiently recognize our contributions. It is doubtful, however, that such conclusions would be in the best interests of educational psychology.)

We are well aware, of course, that no group of educational psychologists, no matter how eminent its composition, has all of the answers. In an attempt to broaden its input, the committee has sought and received opinions from a large sample of the educational psychology community. Nonetheless, the report almost certainly does not represent a universal consensus among educational psychologists. Rather, it represents our
considered views based on an honest attempt to determine the facts tempered by the “outside” input we have received. Whatever your reaction to the specific recommendations contained herein, we shall consider our efforts worthwhile if the report stimulates thought and helps to bring about an improved discipline of educational psychology.

Our report is organized as follows:
1. National needs relevant to the disciplinary aspects of educational psychology. (We wanted to identify some of the things that the nation and the world need and that educational psychology might provide.)
2. The current status of educational psychology as a discipline. (We wanted to find out how things are at present, especially relative to the above needs.)
3. Promising advances in educational psychology. (We wanted to know what we are doing well and what things look promising. Reward is more effective than punishment in shaping behavior and, anyway, we all like to be told how good we are.)
4. Recommendations for the future of educational psychology as a discipline. (We hoped that these recommendations would bear some relationship to the prior analyses.)

NATIONAL NEEDS RELEVANT TO THE DISCIPLINARY ASPECTS OF EDUCATIONAL PSYCHOLOGY

We begin with the basic premise that the discipline of educational psychology is concerned primarily with improving understanding of and providing means for improving the teaching/learning process—in all of its facets and in schools and training institutions of all types. Given this basic premise, national needs are classified according to disciplinary goals and the needs of relevant institutions.

Disciplinary Goals
A. The need to understand the teaching-learning process

We list below some basic areas together with illustrative problems associated with each. (This selection is neither exhaustive nor exclusive. Nonetheless, several members of the committee, especially Frase, Gagne, Scandura, and Stolurow, gave considerable attention to its formulation in the hope that it might be suggestive.)

1. The need to better understand what there is to teach (What does mean to know something?)
   a. How can subject-matter knowledge best be represented? Underlying competence?
   b. How are heuristics and higher level strategies (processes/rules), and intellectual skills related to more specific subject-matter knowledge? How can they be identified and taught?
   c. Exactly what is it that is must be learned in such hard-to-define areas as reading, moral development, and reasoning? Relationships among different domains of learning outcomes?
   d. What is the nature of the relationships between task analysis, learning-hierarchy analysis, content analysis, algorithmic structural analysis, etc.? More generally, how can one identify underlying competence? Structure?

2. The need to better understand how to find out what individuals do and do not know
   a. Are normative and criterion-referenced testing incompatible or is reconciliation possible? Criteria-referenced measurement and cognitive processes? What form should a performance test theory take?
   b. How can one measure higher level intellectual skills (processes/rules)? Reading-related skills?

3. The need to understand how people learn real subject matters
   a. What role do heuristics and other higher level processes play in learning? What is the nature and role of motivation? Early development? Are behavioral and information-processing views of motivation incompatible or is reconciliation possible?
   b. How do processing capacity, and constraints on human receptors and effectors influence school learning? Are they innate? Determined via physical maturation? What about higher level processes?

4. The need to understand the general properties of teaching and learning systems

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a. What is the nature of the ongoing teaching-learning interaction? Can dynamic relationships of this sort be spelled out in precise terms that lend themselves to scientific explanation, prediction, and control? What are the proper roles of cybernetics, systems theory, operations research, etc., in spelling out these relationships?

b. How do the general requirements of instructional systems influence research in specific areas related to teaching and learning (such as problem areas 1-3)?

B. The need to identify critical problems in real teaching and learning and to be able to deal with them effectively and efficiently

Among other things, instructional methods, design principles, and technologies are needed to:

(1) Identify what must be learned concerning the various types of educational objectives.

(Included among these types of objectives, for example, are subject-matter knowledge, basic intellectual and physical skills such as those involved in reading, mathematics, sports, etc., higher level skills such as reasoning, attitudes, and values.)

(2) Develop effective and efficient tests that are appropriate for testing all types of educational objectives.

(3) Develop effective and efficient instructional strategies that can be used to achieve predetermined kinds of educational goals.

In addition, there is a need to:

(4) Identify significant educational problems that can be solved on the basis of existing technologies, and/or for which new technologies are needed.

(Implicit in the above is the need for a deeper understanding of the relationship between basic research and the solution of educational problems. Implicit also are such things as reliable methods for distinguishing between bona fide educational problems and the educational views of special interests.)

In interpreting the above, it is important to recognize that the educational psychologist, generally speaking, will not be an expert in specialized subject matter areas such as linguistics and mathematics. It is important, therefore, that effective mechanisms also be developed for articulating instructional know-how with the views of experts in various fields. This need becomes increasingly important as the level of instruction increases from elementary, to secondary, to university and specialized technical training.

To summarize, answers are needed to such questions as: (1) How do people learn school subjects? (2) What are the basic causes of learning problems and what can be done to overcome them? (3) How can one identify and operationally specify educational objectives and "what is (to be) learned" in such hard-to-define areas as reading, child development, and reasoning? (4) Can we develop new, more efficient, and more general technologies for educational design? Specific needs include more general methods for performance testing, content analysis, building in transfer potential, and instructional sequencing.

Needs of Recipient Institutions

The above needs are purposefully general and refer to traditional problem areas that have in the past and undoubtedly will in the future continue to have basic relevance. They all refer to the basic "need to understand," a general objective that remains the same even though specific questions and emphases may change as advances are made.

Given their general and relatively permanent significance, it also seems useful to identify the more specific present needs of institutions in which educational psychology plays an important role.

C. Schools

When one considers the large variety of curriculum materials, methodologies, and educational fads that are being promoted today, it is not surprising that the classroom teacher often becomes confused and is unable to deal adequately with student needs. Take, for example, the emphasis on open or individualized education, which in some school systems is being imposed "from above"—irrespective of whether the teachers are able to utilize the techniques properly or whether the students have the necessary self-initiative and independence.
Part of the problem derives from traditional and legalistic realities. While school systems and legislatures have generally recognized the value of specialists (e.g., counselors, school psychologists) in dealing with career and affective needs of students, and to a lesser extent, the value of subject-matter specialists, there has been very little awareness of the role that educational psychologists might play in improving everyday instruction. We hear much, for example, about counselors and school psychologists in school settings, but, with the exception of hardware experts in educational media and a few "educational researchers," intensive involvement of educational psychologists has been limited. This is unfortunate, we feel, because specially trained M.S.- and Ed.D.-level educational psychologists, by working directly with classroom teachers, might help them to improve their everyday teaching and to avoid obvious pitfalls. (These needs were traditionally met by school administrators but few have the necessary expertise, and, in any case, their other duties typically preclude giving the kind of help we feel is needed.) By stressing the everyday cognitive/motivational aspects of school learning, such specialists could complement the more traditional role played by school psychologists in the affective/abnormal domain.

D. Industry/Government/Higher Education

There also is a need for educational design specialists and technologists who are able to deal effectively with the vast and growing training needs of industry, higher education (including the medical area), and government (including the military). A somewhat different, but equally important, need in government is for personnel who are able to identify appropriate national needs and the possible role of educational psychology in solving them, and to develop realistic, workable, and sound programs of support designed to meet these needs.

E. College Training

While some of the above needs are being met to some extent, especially in category C, there is an apparent need to revamp, update, or at least, re-evaluate existing courses and programs in educational psychology at both the undergraduate and graduate level.

Since colleges provide the breeding ground for future educational psychologists, training programs in educational psychology must be designed to meet the various disciplinary and institutional needs identified above. In particular, graduate programs should be designed to train: (1) high-caliber research workers and theorists who are able to identify and to deal creatively and productively with open questions pertaining to teaching and learning, (2) technological experts who are capable of developing new and better instructional technologies and/or of using them to design efficient learning systems, (3) specialists who are thoroughly familiar with the latest knowledge and technologies in educational psychology and who have had supervised clinical training in assisting classroom teachers to improve their instruction, and (4) educational psychologists who are thoroughly familiar with the latest knowledge and technologies in educational psychology and who plan to specialize in teaching educational psychology at the undergraduate and in-service levels. (Because continuing involvement in the discipline and intimate familiarity with school curricula are an indispensable part of such a role, the committee feels that doctoral education in this specialty should include R & D experience and/or training in some special curriculum area.)

THE CURRENT STATUS OF EDUCATIONAL PSYCHOLOGY AS A DISCIPLINE

In this section, we review the current status of educational psychology as a discipline with particular reference to: (A) views and interests of educational psychologists as determined by a survey of the Division 15 membership, (B) kinds of research in which educational psychologists engage, (C) professional organizations relevant to the disciplinary aspects of educational psychology, (D) federal funding for educational psychology, (E) educational psychology in the university, and (F) the employment situation in educational psychology.
A. Views and Interests of Educational Psychologists

The committee conducted an extensive survey of Division 15 members to determine their views and interests. A questionnaire including 16 rating scales and four open-ended questions (1. What statistical techniques do you use most in your research? 2. What has been the most significant advance in educational psychology during the past 10 years? 3. . . . greatest fault . . . . 4. Other comments) was mailed to the entire membership during fall 1974. Responses were received from 590 members and fellows. Among other things, it was found that on the average the membership spends less than half of its time on educational psychology. (Much time was spent in administration.) This survey also confirmed the committee's expectation that educational psychology has lacked a well-defined identity and is ambiguous about splitting with its parent discipline of psychology.

A significant number of respondents voiced either the opinion that there is currently not enough emphasis on theory or that recent theoretical work represents a positive advance. Only a third as many disapproved of theory in educational psychology. On the other hand, a significant number of respondents felt that current theory was too abstract, and that they did not see its relevance to practice. Interestingly, an even larger number of respondents felt that current research was fragmented into narrow specialties, also presumably with little relevance.

Apparently, most educational psychologists feel that we need comprehensive, yet scientifically rigorous, theories that have direct relevance to education—something that is not always the case with contemporary theories in psychology and other disciplines.

B. The Content of Educational Psychology

As noted above, educational psychologists engage in a wide variety of activities and utilize a wide variety of techniques. Nonetheless, since educational psychology is in large part a problem-oriented discipline, the general content of the field can be reasonably well defined by areas of application.

With this in mind we have listed in Table 1 those applied activities in which educational psychologists typically engage, together with some of their major disciplinary components.

<table>
<thead>
<tr>
<th>Problem Area</th>
<th>Disciplinary Components</th>
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<tr>
<td>The Identification of Educational Goals (needs analysis, goal definition, etc.)</td>
<td>Management science, opinion sampling, questionnaire and interview design, attitude measurement, operations research.</td>
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<tr>
<td>Analysis/Determination of What Must Be Learned (e.g., job, task, and learning task analysis)</td>
<td>Personnel psychology, military psychology, instructional psychology.</td>
</tr>
<tr>
<td>Delivery/Designing Instructional Systems (e.g., designing instruction, media selection, instructional delivery)</td>
<td>Growing technical literature and the beginnings of theory on designing instruction, also many relations with contemporary learning theory, considerable literature but less theory on media selection, research at various levels (e.g., individualized instruction, ATTI research).</td>
</tr>
<tr>
<td>Readiness/Evaluation of Student Behavior and Course Effectiveness (e.g., developmental stages and readiness, assessment of student performance, evaluation of instructional programs)</td>
<td>Developmental psychology, test theory and interpretation, criterion-referenced testing, techniques of evaluation.</td>
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</table>
Whereas the components in Table 1 have attracted considerable attention, relatively little attention has been given to the interrelationships among these various problem areas. Nonetheless, although most educational psychologists have been trained to work within one or another of the above problem areas, it is not at all clear whether these areas may be usefully separated if one seeks a comprehensive understanding of teaching and learning. Presumably what are needed are comprehensive yet rigorous systems that could provide the necessary integration.

C. Professional Organizations Relevant to Educational Psychology

In recent years, initially at the impetus of one of the committee members, questions have been raised about Division 15 as it is currently constituted. Informal surveys and discussions with numerous members and potential members suggest that a distressingly large portion of productive educational psychologists are not members of APA (or of Division 15). Many educational psychologists, for example, belong to Division C or D of the American Educational Research Association (AERA), but not to APA. A large number of high-caliber academics who are researching the problems of teaching and learning belong to neither organization. Many of them belong to more specialized societies such as the National Society for Programmed Instruction, the Structural Learning Society, or other specialized interest groups of larger organizations (e.g., AERA).

D. Federal Funds for Educational Psychology

The major types of R & D activities in which educational psychologists participate and the extent of support by various federal agencies are shown in Table 2. In this table, each agency is classified according to budget and emphasis. A budget is considered high if over 100 million dollars annually is allocated to activities in education and psychology. Educational emphasis refers to what might be called the principal mission of the agency as far as education is concerned. This refers to applied research and development rather than basic research, and to education rather than psychology. It is important to note that R & D activities of an agency are not necessarily limited to this mission (thus, NIH supports research on learning disabilities and in various areas of psychology as well as in medical education).

Of the various types of R & D activities, basic research includes both psychology and education. Teacher Training refers to the "research on teaching" so highly visible in the literature but it may include projects for training teachers in a specific curriculum. Evaluation includes the area of "tests and measurement." Technology mainly means CAI and other efforts with a strong instructional design component. It does not include ETV curriculum projects such as "Sesame Street."

Table 2 suggests that stronger support seems likely in two areas of research and weaker support in one. Thus, limited support is available for Teacher Education. In the case of NIE, major changes are currently underway. The expectation, however, is that most support will continue to go to existing and possibly a few new labs and centers. In the case of NIH and DOD, it is limited to highly specific post-secondary areas. The winners seem to be Evaluation and Curriculum. Some qualifications need to be made regarding Curriculum, however. Support is currently weak, and may soon be nonexistent, in areas related to the social sciences. Also, of all areas considered, it is probably the one in which educational psychologists now play the least significant role. On the other hand, Evaluation is likely to remain a high-priority activity, if only because of its close relationship to policy analysis. Policy is an important activity in which agencies engage.
<table>
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<tr>
<th>AGENCY</th>
<th>BUDGET</th>
<th>EDUCATIONAL EMPHASIS</th>
<th>TYPES OF R &amp; D ACTIVITIES</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>BASIC RESEARCH</td>
</tr>
<tr>
<td>NSF</td>
<td>High</td>
<td>Science Education</td>
<td>Yes</td>
</tr>
<tr>
<td>Defense (DOD)</td>
<td>High</td>
<td>Armed Forces Personnel Training</td>
<td>Mission-oriented</td>
</tr>
<tr>
<td>NIH</td>
<td>?</td>
<td>Medical Education</td>
<td>Yes</td>
</tr>
<tr>
<td>NIMH</td>
<td>Low</td>
<td>Mental Health</td>
<td>Yes</td>
</tr>
<tr>
<td>NIE</td>
<td>Low</td>
<td>Public Education K to 12</td>
<td>Limited</td>
</tr>
<tr>
<td>OE</td>
<td>High</td>
<td>Public Education K to 12</td>
<td>No</td>
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At the present time at the NIE, political realities tend to favor the educational research and development centers and laboratories. The amount of money going to unsolicited projects is unbelievably small in a country of this size (even small countries such as Holland devote considerably more money annually to educational research).

Of the three remaining R & D activities, Special Education is stronger than Table 2 would indicate. This activity includes many aspects of the OE Compensatory Education programs. Support may also increase for Basic Research. All agencies except OE have some kind of basic research program. DOD and NIE currently emphasize certain areas. DOD tends to fund research relevant to personnel training or human-factors engineering. NIE has emphasized reading, and under its current priorities is moving into mathematics. NIH and NIMH fund a broad range of research, but tend toward basic research in traditional areas of psychology only. One major hope comes from NSF, whose budget beginning with fiscal year 1977 includes a significant amount for basic research in education.

The case of Technology is considerably more ambiguous. It is weak at the elementary and secondary level but strong at the post-secondary level, especially in specific areas such as armed forces training and medical education. This support comes from agencies that have had more or less stable funding.

E. Educational Psychology in the University

This section represents an attempt to describe educational psychology as it exists in universities at the present time, and the problems it faces both as a discipline and a curriculum in this setting. Although the views presented are necessarily limited, they seem fairly representative of the situations that exist at several major state and private universities.

(1) Formal status

Educational psychology exhibits a variety of individual patterns in different universities. In some, it is simply a part of a department of psychology, responsible for courses in educational psychology and school psychology, and functioning within a college of liberal arts. In most, educational psychology is a separate department in a school or college of education. In that setting, it may be a section of a department, such as a "department of education" or a "department of educational foundations." It is our impression that there has been a trend in public institutions over the past 10 years to establish separate departments of educational psychology in schools of education.

(2) Academic responsibilities

Usually an educational psychology faculty is responsible for offering one or more undergraduate courses in educational psychology, often required for teacher certification. In addition, when separate departments exist, graduate degrees may be offered in this specialty. Typically, the content of educational psychology at both undergraduate and graduate levels includes the core areas of human development, human learning, and psychological measurement. Adjunct areas frequently occur, such as statistics, counseling, and some aspects of social psychology.

(3) Quality of academic programs

At the undergraduate level, educational psychology has not always been distinguished by excellence. On the one hand, it is often criticized by students and former students as being "too theoretical" and/or "too remote from the problems of the classroom." On the other hand, it has long been plagued by inadequate texts that give the impression of "warmed-over" elementary psychology. The first of these criticisms is a genuine expression of dissatisfaction, but it probably does not capture the true difficulty. Educational psychology, after all, must be largely "theoretical," unless it is to descend to the level of describing routine classroom procedures. It should be a course that broadens horizons of thought, not one that is restricted just to the learning of practical skills. The second criticism is actually more accurate and more serious. It means that because of the influence of social and economic factors, textbooks in educational psychology have been developed and produced in the image of the "comprehensive" and "eclectic" elementary text in psychology. For example, they often report the results of traditional psychological experiments without ade-
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Adequate explanation of what practical significance or relevance such findings have for school learning.

As for graduate programs in educational psychology, they appear to vary from barely adequate to quite good. Some still emphasize concerns adopted from "academic" psychology, such as the learning of paired associates. Others avoid research altogether, with the exception of occasional dissertations that collect dust on library shelves. The best ones would appear to be those organized and administered by a separate faculty (either a separate department or a separately organized section of a larger department), although many of the weaker programs fall into this category also.

The situation in major private research universities is somewhat different. In such universities, education generally has been held in modest esteem, and the situation of educational psychology is only slightly better. In this context, it has often been essential to adopt a different strategy, one that purposefully draws upon the strengths of individual faculty members in other departments including, but not limited to, psychology. It must be said however, that the success of such undertakings, as in most ad hoc arrangements, depends largely on the intellectual power and strength of the personalities involved.

(4) Effects of the title

From the standpoint of what educational psychology ought to be, the effects of the word "psychology" in its title have been negative as often as positive.

a. The title has led to domination in an internal political sense by academic psychology. This means restrictions are placed upon "educational psychology" offerings by considerations of conflict with psychology's "turf."

b. "Educational psychology" is dominated by the larger social forces (within and without the university) that determine the "content" of psychology. As previous examples have indicated, this means that content tends to be included because it represents traditional psychology, not because it is needed.

c. "Educational psychology" is viewed as a strictly applied subject, without a disciplinary content of its own. Thus, courses in educational psychology have the status of "service" courses in the larger field of psychology, and are not encouraged to develop their own conceptual structure.

d. "Educational psychology" is not helped, and is probably hindered, by the common misconception that it is only a psychological specialty comparable to clinical psychology. This is deeply disturbing to its "self-concept," because educational psychology in its core meaning is not a professional specialty intended for service to the individual public.

(5) Relations with departments of psychology

When educational psychology is a part of a department of psychology, it is subject to the domination of this discipline, as previously noted, and frequently holds the status of "service courses." Where separate departments exist, relations between the two are not always positive. Psychology (usually in liberal arts), for example, is frequently able to block the establishment of needed courses (on the grounds that they are "psychology"), or otherwise to impose modifications on the development of separate course offerings (why should educational psychology teach Learning when psychology already offers Learning?).

Cooperative relationships sometimes exist between individual faculty members of psychology and educational psychology. These are scarcely more frequent than the cooperation of individual faculty members in other departments. At the graduate level, members of the psychology faculty are sometimes involved in graduate student committees, although again this is not a highly frequent occurrence. Cooperative arrangements for seminars, colloquia, and the like are relatively rare, although exceptions do exist. Joint appointments in educational psychology and psychology also exist, but they tend to be nominal or of the "courtesy" variety.

One major belief is that educational psychology receives relatively little intel-
lectual sustenance from departments of psychology. Psychology courses in such fields as learning, perception, motivation, and developmental psychology often do not serve the needs of students in educational psychology. Similarly, with some notable exceptions, the research done by psychologists in psychology departments often has little relevance to educational psychology. When members of departments of psychology work with schools, they are frequently concerned with imposing a doctrine (such as contingency management) rather than with attempting to solve school problems. (This is not always true, but there are many instances of it nonetheless.)

It is quite possible that the development of a disciplinary structure may proceed best when educational psychology is independent of psychology, and is unhindered by its name. The labels instructional science research design and evaluation have come to connote much of what is most promising about the field.

F. Employment Situation in Educational Psychology

In a word, the employment situation for educational psychologists, particularly at the doctoral level, has been "dismal." Job opportunities for generalists have been few in number and very rarely provide opportunities for the sort of professional and intellectual growth implied throughout this report. On the brighter side, there are growing signs to indicate that the educational community at large is beginning to recognize the value of instructional design. (There also are some opportunities for test and evaluation specialists and school psychologists, but graduate training in these areas often takes place in separate programs.) Although the general level of recognition is relatively low in comparison with rather sophisticated recent advances, it appears to the committee that this is a positive development that should be promoted by the Division. See our recommendations concerning this below.

PROMISING ADVANCES IN EDUCATIONAL PSYCHOLOGY

A. Disciplinary Advances

The large amount of research and theory development on teaching and learning that is currently underway precludes any complete description or even listing of all potentially promising advances. The list that follows is simply illustrative.

(1) Advances that have penetrated through to the practitioner: principles of reinforcement (Skinner); behavioral objectives (Mager/Popham/Glaser); learning hierarchies (Gagne); developmental stages (Piaget).

(2) Advances that have been widely understood and recognized by the research community in educational psychology but that have not yet filtered through to most school practitioners: mastery and criterion-referenced testing (recognition is fairly widespread and is becoming more so); the paradigm shift from S-R to cognitive, information processing in psychology, particularly as this involves education; artificial intelligence and simulation models of complex human performance and instruction.

(3) Promising advances that have not yet been fully evaluated, accepted, and/or understood by many educational psychologists: relatively formal structural, systems, and cybernetic theories of teaching and learning that incorporate ideas relevant to content analysis, cognitive psychology, and criterion-referenced testing, for example, but that transcend them by emphasizing their interaction in ongoing systems of teaching/learning as they change dynamically over time (e.g., structural learning theory, conversation theory, algorithmic approaches to instruction).

B. Professional Organizations Relevant to Educational Psychology

At the present time, the interests of educational psychology must compete with those of a large number of influential divisions and special interests within the APA and AERA. As a result of such competing interests, the best interests of the vast majority of educational psychologists have not always been represented as fully as might be desired.

In recent years, a number of alternative organizational models (e.g., the Psychonomic Society) have been considered as a means of increasing the impact of educational psychology. During our
committee deliberations, in fact, one such model was considered by the Division executive committee but was voluntarily withdrawn after discussion of the pros and cons. This amendment was designed to maintain Division 15 much as it is, while opening up the Division to non-APA members. The committee takes no position on this particular proposal but does feel that educational psychologists should remain alert to alternatives that might broaden the base of support for the Division and thereby give the Division greater political influence in areas that affect educational psychology at large.

C. Federal Funding for Educational Psychology

In spite of the generally bleak picture in educational research funding, there are a few bright spots. Although hardly realized in terms of dollar commitments, the growing recognition of the potential value of instructional design is a positive advance that should be reinforced by the Division at NIE, NSF, and other relevant agencies. The same should be said about positions at universities, medical training institutions, and the like, where the role of instructional consultant has become increasingly common.

D. Educational Psychology in the University

With the diminution or abolishment of educational psychology programs at some major universities, it is hard to be optimistic. Nonetheless, there are several promising signs and the Division should be cognizant of them in its future planning. One promising advance concerns the growing acceptance of instructional design and evaluation. This has led to a number of new university programs that in some places have replaced and in other cases have complemented existing educational psychology programs. It would appear that the relatively well-defined focus such programs represent stands in stark contrast to the rather ill-defined image of traditional educational psychology.

Another promising development has been the increasing tendency of “academic” scholars to become involved in instructional problems, as evidenced by the growing number of effective working relationships between such individuals and educational psychologists. The committee believes that such cooperation should be encouraged, for it is only by developing a stronger interdisciplinary foundation for the study of teaching and learning that educational psychology will obtain acceptability in the broader community of scholars. A major problem for educational psychology, of course, will be gaining such acceptability while at the same time ensuring that the work retains a close relationship to educational reality.

E. Development of New Positions in Educational Psychology

The committee finds few reasons for optimism in the employment picture. Teacher training programs, for example, which traditionally have been heavily serviced by educational psychologists, are diminishing in size all over the country.

Although a variety of steps have been and are being taken to help maintain enrollments (e.g., by emphasizing continuing education, attending to “fads”), these changes in emphasis have not augured well for the disciplinary aspects of educational psychology.

Again, one positive hope seems to be to capitalize on the increasing acceptance of educational/instructional design and evaluation by administrators in public schools, institutions of higher learning (e.g., universities, medical schools), and businesses and organizations (e.g., the military) where specialized training is required. More generally, educational psychologists must do a better job of public relations; we believe that this can only be accomplished over time, as a result of continuing substantive accomplishments by individuals and groups who are perceived as educational psychologists. We believe further that research and theory that contribute to both the disciplinary foundations and practice of teaching and learning are most badly needed and will have the greatest impact.

RECOMMENDATIONS

As a general overall conclusion, the committee strongly recommends that Division 15, both through its leadership and through individual initiatives, take an active role in promoting the interests and identity of educational psychology as a discipline (although not necessarily by
that name), at all levels and in as many ways as seems practical. Division 15, especially modified as recommended (see below), should provide the central moving force for such activities. In order to accomplish this, we believe that the Division, in addition to its traditional activities (e.g., the Thorndike Award, etc.), must not only remain open to but must actively encourage promising new ideas, whether they involve theory and research, federal funding, university programs, or the job market.

The following suggestions are directed toward these ends.

A. Disciplinary Foundations

The Division should take steps to encourage the development of a stronger disciplinary base within educational psychology, while at the same time remaining open to advances in psychology and other disciplines that hold promise for the study and/or improvement of the educational process. Specifically, the committee feels at this time that the Division should reinforce the paradigm shift from S-R to information processing in psychology by encouraging the increasingly widespread adoption of this view in the study of educational problems. Similarly, encouragement should be given to basic research on language and reading.

Nonetheless, one of the reasons that educational measurement, and normative testing generally, has been not only respected but closely identified with education over the years (as well as with psychology) is that the field was motivated initially and developed throughout its long history in large part by educational researchers.

Educational psychology, we think, has a similar opportunity today. Such concerns as criterion-referenced testing, evaluation, instructional design, and algorithmic/structural approaches to instruction all fall within the rubric of "instructional science," an area that appears equally promising. Especially important, we think, are instructional systems and theories that serve to integrate and to define the field and that have significant practical value.

In addition to encouraging such developments, therefore, the committee believes the Division should actively promote such recent advances—not so much in terms of personalities but by weight of worth of the ideas. Since they most properly belong to educational psychology per se, broader recognition by other scientists of the contributions they make toward understanding the teaching/learning process can only serve to increase the esteem with which educational psychology is held.

In this regard, we make the following specific recommendations:

Recommendation 1: Relevant journals, such as The Journal of Educational Psychology, The Educational Psychologist, The American Educational Research Journal, Instructional Science, and The Journal of Structural Learning should be encouraged to solicit theoretical articles that deal with promising theoretical perspectives for instructional problems.

Recommendation 2: Division 15 should solicit APA symposia presentations that emphasize methodological and theoretical advances that have direct relevance for teaching and learning.

Recommendation 3: The Division should create an ad hoc committee to explore the possibility of co-sponsoring special conferences having direct relevance for the disciplinary foundations of educational psychology. Such a committee might also explore the possibility of mutually beneficial liaison relationships with more specialized societies and organizations, especially those that emphasize problems of direct relevance to educational psychology (e.g., NSPI, Division C and interests groups in AERA).

B. Reorganization of Division 15

Although it is not the primary purpose of this committee to deal with questions of reorganization, the above analysis would seem to have some implications in this regard. In particular, if it is true that the professional interests of educational psychologists in other organizations such as AERA must compete with those of other professionals—with sometimes conflicting views—and if it is true (as seems likely) that many competent educational psychologists are not members of APA, then Division 15 might do well to broaden its membership base.

Recommendation 4: Division 15 should maintain its present association with
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APA but should consider possible ways of modifying its bylaws to open membership in Division 15 to highly qualified non-APA members.

C. Research Support

Given the contraction of funding for educational research over the past several years, funds for new initiatives in educational psychology have been extremely limited. (Funding in the late 1960s was lush in comparison.) As a result, individual investigators, irrespective of their qualifications, have been at a serious disadvantage in competing with the highly organized, larger research institutions. The situation has been made even more difficult by the fact that AERA, a major political pressure group for educational research funding, has been heavily influenced by the interests of these same institutions, which in many cases compete with the interests of individual scientists at universities and smaller organizations.

In view of the above, the committee proposes:

Recommendation 5: Division 15 should not only maintain but should expand its current initiatives in promoting liaisons with federal funding agencies. Particular attention should be given to the needs of individual research scientists.

D. Educational Psychology in the University

In view of the state of uncertainty that currently exists, special attention should be given to defining alternative roles that educational psychology might usefully play, and organizational structures within which it might properly exist in the university context. Attention also should be given to the task of identifying and evaluating the various disciplinary facets of educational psychology. The desirability of proposing minimum standards for training within each of these facets should also be considered, particularly at the doctoral level. Only by maintaining appropriate "quality control," we think, will educational psychology and educational psychologists gain the stature they deserve.

Recommendation 6: A committee should be set up to study more closely the nature of educational psychology and its relationship within the university community. Its primary function might be to identify the various major facets of educational psychology and to develop appropriate standards for graduate training programs with respect to these facets. In effect, the committee should consider the question of quality control, particularly at the graduate levels, and the desirability of the divisions exercising appropriate responsibility in the area.

E. Positions in Educational Psychology

If allowed to continue, the scarcity of positions for qualified Ph.D.'s in educational psychology can only hinder the development of the field. We urge that steps be taken to broaden the range of positions in which educational psychologists might contribute as educational psychologists. Particularly promising, we think, is the possibility of preparing educational psychologists who can work effectively and in an ongoing manner with teachers and principals in schools to promote more efficient cognitive learning and motivation. The school-based educational psychologist would thus be a direct cognitive counterpart of the school psychologist who tends to specialize in affective and abnormal behavior problems. Similar relationships might be developed in the medical areas where research support has traditionally been available in larger quantities. The specialized nature of the medical fields suggests that joint training and/or employment relationships with medical, dental, and nursing schools might be encouraged.

Recommendation 7: A committee should be set up to explore the possibility of "creating a need" and standards for training programs that prepare educational psychologists to work in schools, using evolving principles of instructional design, to promote more efficient cognitive learning and motivation. In addition to the strictly academic implications, the committee should look into political and legal ramifications. In particular, the committee might explore possibilities of working cooperatively with Division 16 (School Psychology). The committee feels, however, that the study of cognition, motivation, and evaluation lies primarily in the area of educational psychology and that Division 15, as the primary organization for specialists in the area, should maintain the major professional responsibility.
*This report was prepared by Joseph M. Scandura, Lawrence T. Frase, Robert M. Gagne, Kay Stoluwow, Lawrence Stoluwow, and Guy Groen on behalf of the ad hoc committee of Division 15, American Psychological Association on the “Current Status and Future Directions of Educational Psychology as a Discipline.” Membership of the committee included the above plus Kent Davis, John DeCecco, Frank Farley, and Ellis B. Page. Joseph M. Scandura served as chairman. Very helpful and detailed comments were also provided by John F. Feldhusen.

**Members present were: President David R. Krathwohl, President-Elect John F. Feldhusen, Ellis B. Page, Robert Grinder, Richard Ripple, Frank Farley, Frederick J. McDonald, Wilbert J. McKeachie, Susan Markle, and Richard Snow. (Minutes are published in the Educational Psychologist, 1974, 11 (2), 129-137).