DOCUMENT RESUME

ED 366 612 TM 020 909

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TITLE Educational Research--Past, Present, and Future as Viewed by Graduates of an Educational Research Program.
PUB DATE Nov 93
NOTE 13p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (22nd, New Orleans, LA, November 10-12, 1993).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Oriented Programs; *Educational Change; Educational History; *Educational Research; Employment Level; *Employment Potential; Financial Support; Futures (of Society); Graduate Students; Higher Education; Measurement Techniques; *Outcomes of Education; *Researchers; Research Needs; Research Utilization; Statistics; Surveys
IDENTIFIERS Cooperative Research Act 1954 Title VII; *Reform Efforts

ABSTRACT

The objectives of this study were to determine the adequacy of the preparation of Educational Research graduates from the University of Alabama, assess their employment history, and solicit opinions concerning the present and future status of Educational Research. A survey instrument mailed to graduates (Ed.S. and Ph.D) from 1973 to the present contained a variety of item formats, and a better than 84 percent return was obtained. Quantitative data were analyzed using primarily frequencies and percentages. Results indicated a change in program emphasis over the past 20 years including increased emphasis on the use of micro- and mainframe computers and an expansion of statistics and measurement offerings. A majority of the respondents secured a position within the first year of graduation and have remained in that position. Most of the graduates conduct research studies in their position. Graduates viewed the research program favorably, and many suggestions for improvement have already been implemented. The future outlook of the respondents included the continued lack of adequate funding for research and an increased need for Educational Researchers whose efforts can be directed at providing information to a variety of agencies to aid in decision-making, and assist and inform groups engaged in educational reform efforts. (Contains 11 references.) (Author)

Educational Research - Past, Present, and Future as Viewed by Graduates of an Educational Research Program

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Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, LA, November 10-12, 1993.

Abstract

The objectives of this study were to determine the adequacy of the preparation of Educational Research graduates from The University of Alabama, assess their employment history, and solicit opinions concerning the present and future status of Educational Research. A survey instrument mailed to graduates (Ed.S. and Ph.D.) from 1973 to the present contained a variety of item formats, and a better than 84% return was obtained. Quantitative data were analyzed using primarily frequencies and percentages.

Results indicated a change in program emphasis over the past 20 years including increased emphasis on the use of micro and mainframe computers and an expansion of statistics and measurement offerings. A majority of the respondents secured a position within the first year of graduation and have remained in that position. Most of the graduates conduct research studies in their position. Graduates viewed the research program favorably and many suggestions for improvement have already been implemented.

The future outlook of the respondents included the continued lack of adequate funding for research and an increased need for Educational Researchers whose efforts can be directed at providing information to a variety of agencies to aid in decision-making, and assist and inform groups engaged in educational reform efforts.

Introduction

The goals of and problems in educational research tend to change over time as new knowledge and techniques are learned, and as the administration of this country changes. Over the past 25 years, educational research has become more complex and sophisticated (Borg & Gall, 1989). An increase in educational research knowledge occurred since 1960 is due mainly to the federal government's passage of the Cooperative Research Act of 1954. This act authorized funding of research and development projects in universities and other educational agencies by the U.S. Office of Education (USOE). Appropriations averaged $20 million or less from 1957 to 1963 and increased to $37 million in 1964 (Borg & Gall, 1989).

During the 1970s and 1980s, federal funding and the goals for educational research were dependent upon the current administration. During the Bush administration, President Bush and the state governors attended a summit held in September, 1989 at which they agreed that the federal government must support "research and development for programs that work; good information on the real performance of students, schools and states; and assistance in replicating successful state and local initiatives" (The statement by the president and governors, 1989) in order to help advance the nation's new education goals. According to Cross (1990) the four priorities for educational research under the Bush administration included the development of better methods of assessment; aiding parents, educators, and others in finding ways to motivate students; collaboration between R&Ds, Department of Education offices, other federal agencies, and outside groups; and dissemination of research results. Cross stated that the nation's leaders supported these goals but that ways of achieving these goals were up to the educational research community. With the election of Bill Clinton as president and a new Secretary of Education, Richard Riley, changes in the goals of the Office of Educational Research and Improvement (OERI) are likely to occur.

Glass (1993) reported on a BITNET electronic discussion forum regarding education policy and the priorities for the (OERI) under the Clinton administration. Approximately 700 individuals participated in the discussion. The major themes of the discussion included "the balance between K-12 and higher education as foci for research; the wisdom of concentrating the research effort at the federal level versus dispersing it among states; field-initiated studies versus labs and centers" (p. 17). Glass asked questions about what the federal agenda and priorities for educational research should be for the next decade. The criteria discussed by Glass included setting priorities on: the basis of societal needs, areas in the scientific study of education ready for major breakthroughs, visions of what education should be, or a political basis. Suggestions from various participants in the discussion included a new theory of educational management; focusing on adult learning and education; focusing on practitioners, research programs, and making better spending decisions; evaluating the effectiveness of the Holmes Group teacher education method as compared to traditional 4-year undergraduate programs; having Education Secretary, Richard Riley, support an integrated research program on the efficacy of large-scale student testing; allocating significant amounts of money for competitive awards to investigator-initiated projects; and balancing the dispersion of government money to research proposals.

One of the major recurring themes regarding educational research is the relationship between researchers and teachers and administrators (Cochran-Smith & Lytle, 1990; Elliott, 1990; Watts, 1985). In the discussion described by Glass (1993), several individuals made comments concerning teacher research. Stephen Kemmis stated that the OERI should examine how it could give priority to more teacher research. "'If we spread the opportunity to participate in designing and conducting educational research, we might reasonably expect it to pay off better in the long run'" (p. 17). Aimee Howley discussed having practicing teachers and

administrators included in the research loop. According to Cross (1993) "if researchers' favorite complaint is lack of money, the most common complaint leveled at them is the lack of connection between their research and teachers' practice" (pp. 26-27). According to Winkler (1992), researchers have increasingly joined education scholars in studying basic issues in learning and assessment of learning. She stated that this interest is due to the availability of funding for applied research and broader intellectual trends.

Cross (1993) discussed the reputation of educational research, outlining problems such as the dissemination of research to practitioners and criticisms of R&Ds. Three main criticisms of R&Ds are that they don't pay off, they are in constant disarray, and that the field of education is highly policitized. Cross then provided suggestions for improving the reputation of educational research in the future. He suggested the joining of influential educational researchers with OERI agency leaders "to develop a more coherent, leaner research agenda for federally funded education research in key areas" (p. 30). Researchers should create a better link to practitioners by involving them in designing and conducting research and should do better at disseminating research to practitioners through workshops and training. In order for these things to occur, federal funding must be increased.

> But whatever the fate of federal support for education, researchers could improve the infrastructure of education R&Ds by listening to the laments and the hunches of these veterans, who tell us, for the most part, to strive for a leaner, less political, more stable agenda, arrived at through improved connections with the profession, Congress, and the agencies that fund research. (Cross, 1993, p. 29)

One of the major issues of educational research has typically been funding. As stated earlier, appropriations for educational research averaged $20 million or less from 1957 to 1963 and increased to $37 million in 1964. In 1965, appropriations increased to over $100 million, and stayed at that level for the rest of the decade. Funding for the 1970s and 1980s

was dependent upon the administration in power (Borg & Gall, 1989). Sroufe (1992) reported on funding for 1992. He stated that although funding increased substantially, some programs received large appropriations (e.g., the National Assessment of Educational Progress) while others received decreased amounts from 1991 (e.g., the Fund for Improvement of Education).

Although the goals and problems of educational research change according to new knowledge and techniques and the political environment in this country, many of the same concerns described by Borg and Gall in 1983 remain concerns. These include lack of funding, isolated research studies, inadequate R&D quality, educators' lack of knowledge, inconsistent results produced by educational research, side effects of experimental programs, and the fact that what "is" in research does not always lead to what "ought" to be in practice. This study was conducted to see in part what educational researchers perceive as the problems and trends in the future of educational research and how adequately prepared they perceive themselves to be.

Purpose

The study sought the opinions of educational research graduates from the University of Alabama regarding many areas of educational research and the University's educational research program. The objectives of the study were to determine the respondents' adequacy of preparation, to assess the graduates' employment history and current job status, and to solicit opinions concerning the future trends and problems of educational research.

Method

A survey developed by the authors was mailed to 48 graduates who earned an Ed.S. or Ph.D. in educational research from the University of Alabama from 1973 to the present. A variety of item formats was used including Likert-type, yes-no, and open-ended questions. Items included information about type of degree earned; length of time it took to secure a

position in educational research; the respondents' current positions; types of statistical analyses used in the respondents' jobs; whether the respondents use a mainframe, microcomputer, or both; which statistical package is used most frequently; and trends and problems in the future of educational research.

The survey; a cover letter; and a self-addressed, stamped envelope were mailed first class to all participants. The initial return rate was approximately 50%; a follow-up postcard was then mailed to all nonrespondents. A third follow-up mailing consisted of the original survey, a cover letter, and a self-addressed, stamped envelope. The final return rate was better than 84%. Simple descriptive statistics (frequencies and percentages) were used to analyze the data.

Results

Of those graduates responding to the survey, 33 (84.6%) had earned Ph.D.s and 6 (15.4%) had earned Ed.S.'s in educational research. It took 23 (60.0%) of the respondents less than one year to find an educational research position, 4 (10.3%) one year, and 2 (5.1%) more than one year. Several of the respondents held educational research positions before graduating and continued in these positions. Responses indicated that of current positions held, 16 (41.0%) hold faculty positions; 6 (15.4%) are in positions where conducting research studies is the major part of their responsibilities; 5 (12.8%) are program directors/coordinators; 4 (10.3%) are in positions involving evaluation or assessment of educational programs; 2 (5.1%) conduct institutional research; 2 (5.1%) are psychologists; 2 (5.1%) act as consultants; 1 (2.6%) is a nurse; and 1 (2.6%) is involved as a resident fellow. When asked if the current position was the only position held since graduation, 17 (43.6%) said yes and 17 (43.6%) said no. Previous positions were of the same type as the current positions except for a computer salesperson and an education commissioner.

When responding to the types of statistical analyses typically conducted within their jobs, responses indicated the majority used basic/descriptive statistics (15 or 38.5%). The next most often used types of statistical analyses were correlation/regression and ttest/ANOVA/ANCOVA (12 or 30.8% for both). Less frequently used are psychometrics including reliability, validity, and item analysis (6 or 15.4%); chi square/cross tabs/contingency tables (5 or 12.8%); and factor analysis/cluster analysis/path analysis (4 or 10.3%). The majority of respondents use mainframes to conduct statistical analyses (16 or 41.0%), while 11 (28.2%) use microcomputers, and 8 (20.5%) use both. When asked which statistical package was most frequently used, 21 (53.8%) responded they use SPSS/SPSSX and 18 (46.2%) responded they use SAS. Some of the other packages mentioned but not used by more than one respondent included WINSTAT, EQS, PC POWER, STATVIEW, SYSTAT, BMDP, LISREL, and SUPANOVA.

Although 31 (79.5%) of the respondents found the computer application courses in the University's educational research program to be helpful or very helpful, 16 (41%) indicated they would like to see more computer application courses. When asked if the respondents felt they should have been given experience in other types of computer applications 16 (41%) said no, while 17 (43.6%) indicated yes. Of those indicating yes, some of the applications mentioned included DOS, FORTRAN, graphics programs, computer languages, spreadsheets, word processing, and PC Stats.

When asked about their educational research training, 35 (89.7%) of the respondents indicated their training was adequate or more than adequate. Only 1 (3.2)% indicated his/her training was less than adequate. Although the survey requested recommendations be given if the respondents indicated their training was less than adequate, even respondents who indicated their training was adequate or more than adequate provided recommendations.

These recommendations included offering guidance and assistance in publishing, offering more content in multivariate methods, providing training in writing skills for journals, and providing opportunities to work with various faculty members in conducting research. During their programs, the majority of educational research students worked with one or more faculty members (30 or 76.9 %), gained hands-on experience in conducting educational research (34 or 87.2%), worked with other graduate students on projects (25 or 64.1%), experienced a practicum (31 or 79.5%) and/or field work (28 or 71.8%), and held a teaching or research assistantship (24 or 75.0%). The majority of respondents found these experiences to be very useful. Of those students who held both teaching and research assistantships (13) and responded to the item, 7 (87.5%) found the research assistantship to be most beneficial while 1 (12.5%) found the teaching assistantship to be most beneficial. Twenty-nine (93.5%) of the respondents indicated they would encourage others to pursue a degree in educational research; 2 (6.5%) indicated they would not.

Future Trends and Problems in Educational Research

The final section of the survey was designed to elicit information on future trends and problems in educational research. Twenty-six (92.9%) respondents indicated that they see more opportunity for educational research in the future while 2 (7.1%) indicated they did not. Six (15.4%) respondents believed that the scope of educational research would be expanded. Reasons given for this included an increase in the application of educational research, integration of educational research in all professional areas, an emphasis on total quality management in education, and an increase in program evaluation due to greater political demands for evaluation of programs receiving funding. Other trends included less evaluation of federally funded programs, moving toward technology-oriented research, multicultural research, an increase in qualitative research, health and social applications, more research into which

educational programs work, more data collected by researchers rather than administrators, use of research incorporated into the administrators' jobs, and an emphasis on performance-based assessment which includes an evaluation of the assessments as well as examination of the reliability and validity of such assessments.

Problems included a lack of funding due to a shortage of money and less state and federal funding; that educational research does not deal with "real" questions; resistance to change among certain quarters; too much "junk" research because of pressure to publish; all social science is based upon an irrelevant science paradigm; and discrimination in the job market because the degree is in "education."

Conclusions

Many helpful recommendations for the educational research program were provided by the respondents. Since graduation dates for the respondents ranged from 1973 to the present, some of the recommendations for the educational research program have already been implemented. An example is the use of microcomputers and some of the application packages taught. Also, students in the educational research program are encouraged to attend and present at national and regional conferences and to attempt to publish. Some of the additional suggestions may be implemented as a means of improving the University's program and other administrators of educational research programs may find the suggestions useful. For example, although the educational research program at the University of Alabama mainly teaches the use of SAS for statistical analysis, it may be beneficial to teach both SAS and SPSSX if time constraints permit. Respondents indicated that both programs are used almost equally. Also, for those programs that do not teach both mainframe and microcomputer use, it is difficult to know what type of technology an individual may be required to use and it would be helpful to

have knowledge of both types of systems. It may be beneficial to have students participate in both teaching and research assistantships to give them both types of experiences.

Many of the problems and trends mentioned by the respondents have been referred to in the literature, including a lack of funding, what questions educational research will try to answer, politics, and published results of studies. The problem mentioned most often was a lack of funding. Many of the trends mentioned by the respondents also appeared in the literature, including integration of educational research in all professional areas, health and social applications, more research into programs that work, and the use of research incorporated into administrators' jobs. Many researchers would like to see more collaboration between researchers, teachers, and administrators, and also more research conducted by teachers and administrators (Cochran-Smith & Lytle, 1990; Elliott, 1990; Watts, 1985). Although much of what occurs in educational research in the future depends on politics and the state of the country, the respondents to the survey were generally optimistic about the future of educational research and perceive greater opportunities. According to Sroufe (1992), the future of the OERI will be shaped largely by political forces. "In national politics, education research is the small ship floating on top of the waves: It moves where the waves move, not the other way around" (p. 28).

References

Borg, W. R., & Gall, M. D. (1983). Educational research: An introduction (4th ed.). New York: Longman Publishing.

Borg, W. R., & Gall, M. D. (1989). Educational research: An introduction (5th ed.). New York: Longman Publishing.

Cochran-Smith, M., & Lytle, S. L. (1990). Research on teaching and teacher research: The issues that divide. Educational Researcher, 19(2), 2-10.

Cross, C. T. (1990). National goals: Four priorities for educational researchers. Educational Researcher, 19(8), 21-24.

Cross, C.T. (1993). The awful reputation of education research. Educational Researcher, 22(1), 23-31.

Elliott, J. (1990). Teachers as researchers: Implications for supervision and for teacher education. Teaching and Teacher Education, 6(1), 1-26.

Glass, G. V. (1993). A conversation about educational research priorities: A message to Riley. Educational Researcher, 22(6), 17-21.

Sroufe, G. E. (1992). Federal funds for education research: What happened in 1992? What might happen in 1993? Educational Researcher, 21(1), 26-28.

The statement by the president and governors. (1989, October). The New York Times, 22.

Watts, H. (1985). When teachers are researchers, teaching improves. Journal of Staff Development, 6(2). 118-27.

Winkler, K. J. (1992, October 14). Researchers leave labs, flock to schools for a new look at how students learn. Chronicle of Higher Education, 39(8), A6-7.