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## ABSTRACT

Researchers in vocational education (VE) often are not viewed as having made substantial contributions to VE practice. The VE literature and the poor attendance at American Vocational Education Research Association sessions by vocational educators are evidence of the gaps that have developed between VE research and practice, basic and applied research, theory and practice, and practitioners and researchers. Researchers in VE must find ways of overcoming these gaps. Among the related issues that have been raised in the literature since the 1960s are the following: the relative benefits of quantitative and qualitative research studies; the need for research that is simultaneously more programmatic and more applied; the need for university researchers to maintain "private" lines of inquiry while meeting their responsibilities of supervising graduate students' research and researching topics for which funding is available; and the need to find individuals to conduct VE research in the wake of elimination of research coordinating units and staff/funding cutbacks at state/federal departments of education and universities. One way to begin bridging the gap between theory and practice would be to begin research on how to deliver VE teacher preparation and other services through regional centers and distance education. (Contains 71 references.) (MN)

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

## From Understanding to Applying: Redefining the Agenda

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The predominant reason for the conduct of research is to understand or to know. Seldom can we say that we absolutely "know" based upon our research. More often, in doing research, we are moving down the road "to knowing". Many writers propose such a way of thinking about educational research, calling for researchers to "understand" and to "know" or noting that educational research is not geared to making conclusions (generalizations) but as decisions (Rose, 1960); a formula for action (Kratwohl, 1985; Warmbrod, 1993; Röling, 1974; Miller, 1993; Popper, 1959)

I want to renew the call for vocational education researchers to address problems that can result in action. Researchers in vocational education are often, at best, just tolerated by others in the profession and not viewed as having made substantial contributions to its practice. Some vocational educators may recognize our unique skill and be a bit intimidated by the vocabulary of "researchese" we use, but many do not perceive that we have really helped with their work. Have we? We need to redefine our image with our constituents and begin inquiry that informs practice.

"Research is not a process of proving something, but a process of discovering and learning ..., ... we may see problem solving, thinking, learning, research and discovery as one and the same process" (Ray, 1987). Few of us would fail to support this statement, and might willingly admit that our first love is teaching, with research a secondary or tertiary choice. How, then, if we revere practice, have researchers moved so far afield as to create a chasm between research and practice, between the basic and the applied, between theory and practice; between the practitioners and researchers? What can we do to remediate the situation?

This paper was presented on December 3, 1994, as the Presidential Address to the American Vocational Education Research Association in Dallas, Texas.

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Since 1971, I have been attending conventions of the American Vocational Association. For most of those years, I have attended sessions of the American Vocational Education Research Association (AVERA). You and I fully know that the attendance at AVERA sessions by vocational educators who are non-members is highly limited. Oh, surely, once in awhile a visitor may drop-in, but rarely. Perhaps those that do are just lost.

Annually, I have tried to make it a personal practice to attend at least one session in an affiliate outside agriculture or research, often to the dismay of the guidance personnel or the home economists. Why are affiliate members not in our meetings? Why do they elect not to attend?

As I reflect upon those nearly 25 years, we have created numerous journals and research meeting to help disseminate research. Thousands of paper/articles have been disseminated. Thousands of other studies have been conducted and may or may not be found in the archival literature. Has the research made a difference? Osborne (1994) indicated that "we may be hard pressed to cite specific changes that have occurred due to research findings." Have we made substantial contributions to our knowledge base in this nearly one-quarter of a century? ... to practice? Not that I can see.

Is the research reported at AVERA sessions so theoretical that it is not of relevance to others? Are the schedules of others so full that attending research sessions cannot be a priority? Are the problems addressed by the research so trivial that others do not see them as important? I wonder what goes through their minds as they examine the topics and content of our research paper sessions and/or journals. Might they say:

"Research ... yuck!"

"This stuff is too specific."

"This stuff does not apply to me."

"This stuff is too theoretical."

"This stuff is too abstract and not concrete enough for my needs."

"This stuff is just done to help someone get promoted or keep their job."

"This stuff won't help me, my department, my program or my school."

The Journal of Applied Psychology (1973), over 20 years ago, reported a study at the University of Illinois indicating research in vocational education was toward "soft" on a hard-soft continuum and toward "applied" on an applied-basic continuum. If university colleagues see vocational educators as "soft" and "applied" researchers, then why do our clientele not hold the same views? Enarson (1989) argued that the "research university" and the land-grant mission may be incompatible. Are we in vocational education facing the same paradox? Is the research function of faculty members in vocational education incompatible with the needs and real problems of our clients? Who are our clients? Are researchers only talking to each other? Is there room for "problem solving" and "subject matter" (Miller, 1989) research in our discipline? Perhaps we have no "consuming public" beyond ourselves. Osborne (1994) noted that researchers tend to discuss findings among themselves while decisions made by practitioners continue to be based mostly on intuition and very little on research.

Vocational educators would find most of their philosophical roots in the pragmatism of Dewey, Whitehead, Pierce and James and to conceive of a situation where we could not relate to the "workability" or application of concepts is beyond me (Broudy, 1962). How can we continue to operate in an environment where the standard expected by our clients is application and the standard of our higher education colleagues is discipline-specific, theoretical research? Since few clients are members of promotion and tenure committees, the drive for discipline-specific inquiry predominates to the detriment of the practitioners.

Warmbrod (1993), quoting from Buriak and Shinn's (1989) study about experiment station directors' perceptions of agricultural education research, opened an address to the Southern Agricultural Education Research Meeting with a statement that may be just as applicable to vocational education as it is to agricultural education:

Agricultural education research is "soft," does not have clearly stated objectives or hypotheses, lacks focus and rigor, is not programmatic, and is not sufficiently funded. It is conducted by persons with weak training in research methodology who (1) cannot identify important research problems, (2) do not value research endeavors, (3) conduct research for promotion and tenure rather than for its importance and utility, and (4) have a limited amount of time assigned for research.

In essence, this quote is similar to one made by Krebs (1976), nearly 20 years ago, and indicates that the perplexing situation has continued to be with us.

Wardlow (1989) related that many of our research problems are too complex to just use one paradigm of inquiry. Copa (1984) similarly charged vocational education to consider alternative methods of knowing. Numerous other paradigm perspectives have been brought to bear on the nature of inquiry in vocational education and the direction it should take such as those of Lakes (1993), Lakes (1992), Lewis (1990), Jax (1984), Schmidt (1992), Hillison (1990), Garrison (1989), Wirth (1983), Gregson (1992), Rehm (1989), Swanson (1991), Oakes (1986), Matthews and Campbell (1983), Copa and Smith (1983), Pratzner (1985), and Ertel and Neveu (1987). I do not want to make this discussion one solely addressing the paradigm debate because I believe we must move toward making our research more relevant to the practitioner regardless of paradigm (Freire, 1987; Van Manen, 1975; Van Manen, 1977; Geertz, 1973; Habermas, 1972; Habermas, 1973; Habermas, 1975; Habermas, 1981; Keat, 1981; Kuhn, 1970; Lather, 1991). What drives important research studies are important problems, not paradigms. Let us identify important problems and then select the appropriate paradigm/method to address the problem; not vice versa. Let us end the paradigm war.

Samuel Johnson noted, "As gold which he [sic] cannot spend will make no man [sic] rich, so knowledge which he [sic] cannot apply will make no man [sic] wise." The applicability of research does interact with design. Carl Rogers (1969) wrote that in educational research "rigorous procedure is considered more important than the idea it is intended to investigate. A meticulous statistic and a sophisticated research design seem to carry much more weight than significant observations of significant problems."

Numerous writers (Warmbrod, 1991; Warmbrod, 1993; Persons, 1992; and Copa and Smith, 1983) have pleaded for vocational education to address important problems, significant problems, problems that answer the "So what?" question, and problems encountered by the practitioners. Vocational education researchers are not alone in facing such a charge because it has been alleged that my colleagues in agricultural economics were doing research for the sake of their peers to the disadvantage of applied work, and that consulting for the highest paying firm was becoming the desired end of the professorate (Schuh, 1986). Agricultural economists must become more applied or they will become extinct (Bromley, 1992). Can the same be said for researchers in vocational education?

What about the significance of our research? What does it add up to? Are we too fragmented in our lines of inquiry to significantly add to knowledge? Study after study enumerating teachers' perceptions of or anxiety about the use of microcomputers has not made a substantial contribution to our practice. Numerous other trivial studies could be cited.

Perhaps, then, if we are not playing trivial pursuit, we are merely responding to one funding opportunity after another and ignoring our clients? Has the researchers' quest to have a plethora of funded grants to list on Curriculum Vita or Promotion and Tenure documents come at the cost of forgetting the vocational students enrolled and the instructors teaching in the programs all over this nation? Are we, as McCracken (1983) charged, prostituting ourselves and playing the harlot just to procure grants? Those primary, secondary, postsecondary and adult students are our reason for being. Has our research improved their lot? Can it?

A decade ago most AVERA members would have fit into the category of quantitative researchers. They were asked to be more accepting of ways of knowing and, thus, numerous qualitative studies were accepted for presentations and dissemination. What are the standards of quality which these studies must meet (Eisner, 1992)? Are we simply accepting work because someone calls something qualitative? Do these works address a "So What?" question and are they well done?

Can we apply to our research the "workability" standard of the pragmatist or is it all too esoteric or trivial to be applied? The 1992 AVERA Presidential Address challenged vocational educators to work within the context of society and to provide a vision to people of whom they can become (McCracken, 1993). A Nobel laureate stated over 30 years ago that the skills and knowledge of people are a form of capital investment, that it has grown in Western society much faster than conventional capital, and that its growth may well be the most distinctive feature of our economic system (Schultz, 1961). Yet, it is the most neglected part of the economic system. Developing the potential of people is the major purpose of our discipline. Practical solutions are needed (Wirth, 1983).

Ulrich (1988) addressed these practical problems and noted that the "practical intent" is to bring more reason into actual practice, whereas theoretical knowledge would bring some "objective knowledge" about some segment of the problem, but practical reason is to secure ethically justified consensus among stakeholders about norms

regulating interpersonal relationships within our world. Røling and Engle (1992) proposed that research be more "user controlled". I want to use practical interest, action research and applied research synonymously and encourage immediate expansion under any appellation.

The question may be: "Can one do applied research and have it viewed as substantive?" We must have substance to our research. We cannot continue to pursue trivia! Can applied research be on substantial and important areas, whether it is qualitative or quantitative, and inform practice (Schön, 1983)? I believe the answer has to be "yes" or we will not have a reason to exist. Cheek (1994) noted that the quantity, quality and relevance of our research has improved, but "despite all of these advances many of the research findings do not find their way into practice."

As university researchers, we often set our own research agendas. The exceptions would be when we conduct inquiry because funds are available even if it is in an area in which we are not interested, and, I have found, when we direct the work of graduate students who are pursuing a line of inquiry in which they are interested. Since a large proportion of the research conducted in vocational education is done by graduate students, not longitudinal, not replicated and of limited scope; small, one-shot, or trivial examination of problems may be about all we can expect.

Can we become more programmatic in our research and simultaneously move toward research that has more application? I think so. I believe we could all have a "private" line of inquiry we pursue, with persistence, and have it be one that informs practice. We might even be able to occasionally interest a graduate student in that problem and make even more progress, or occasionally find some funding for the line of inquiry. Over a period of time, it might "add up to something". Administrators and the profession might even be delighted to see a consistent output on a specific programmatic research area.

Some might argue that we in vocational education are on the "margins" of the research arenas in education, psychology, sociology and other discipline-specific areas. Perhaps the concept of "margins" can be parlayed into interfacing with reality, the pragmatic and the applied. Being on the margin might even be advantageous when developing interdisciplinary teams (Miller, 1989b; Miller, 1991) or applying systems thinking (Raman, 1989; Ackoff, 1974; Checkland, 1981; Cronbach, 1982; Oliga, 1988; Churchman, 1968). We might even go so far as to form alliances with schools and teachers to cooperate in the conduct of systematic inquiry.

Can't we begin to generate some concepts, constructs and principles (Adams, 1992) from our inquiry that can be applied to policy and practice? Enormous amounts of energy have been expended during the last few decades by vocational educators and others evidencing "differences". These differences have often rightly examined issues related to diversity. However, might we not start a new decade of examining for "sameness"? What are the commonalities across the vocational education content areas/peoples/cultures?

Vocational education supervisors and administrators at the national and state levels have been diminishing in numbers for years. The visibility and effectiveness of vocational education programs in the states and local districts have suffered proportionately. Often, many of the essential service from the State Departments were delegated to colleges and universities and "pseudo-agencies" established to oversee activities for the youth organizations, curriculum development, etc.

Legislated research, which at one time was supposedly conducted through Research Coordinating Units and which very seldom supported original inquiry but provided compliance documentation, almost never provided funding to colleges and universities. Oh, some might want to argue that the "National Center" programs support research, but, honestly, what proportion of the research generated from these efforts is applicable to or originated from local programs. In fact, the lack of applied research has probably been the greatest criticism made by teachers and other vocational educators against the Centers' agendas.

Who will do the research? Few faculty in vocational education have a proportion of their time set aside for research unlike some of my colleagues in agriculture and other colleges. Some fortunate enough to have funded projects may temporarily have some time for such work. Oh, yes, I understand that faculty are expected to conduct and publish research even if their duties are 100% in teaching. That is certainly the norm in higher education in the Land-grant tradition (Debertin, 1992; Paarlberg, 1992). Can we expect the pursuit of programmatic lines of inquiry and the acceptance of a charge to address "applied" questions from such individuals (Miller, 1990)? It is probably not reasonable to assume so! Provision needs to be made for positions with substantive proportions of effort earmarked for research.

Again! Who will do the research? Just as staffing in state departments has diminished, so has it in universities. The number of vocational educators and researchers has been

appreciably reduced by attrition, retrenchment, retirement buyouts, and the tide does not seem to be ebbing.

Vocational education will not be a high priority within Colleges of Education or any college in higher education in which one may be housed! Strategic planning exercises will omit peripheral programs; such as vocational education, adult education, guidance and counseling. Coupling the abysmal financial support from within institutions of higher education with that coming from state and federal agencies; teacher education and/or research programs in vocational education may soon be nonexistent.

Therein may lie a very applied problem upon which we should start research work: how to deliver vocational teacher preparation, inservice programs, and other services through regional centers and distance education. The future may be three or four universities, nationally, actually providing teacher training, research and service.

What constitutes the nature of our scholarship? I would argue that we need more interpretative and critical scientists to analyze and synthesize what we are already doing. Our scholarship (Boyer, 1990) can include the scholarship of discovery, the scholarship of integration, the scholarship of application and the scholarship of teaching. The challenge to the field is to further develop and support academicians and practitioners as reflective or scholarly practitioners (Sandman, 1994).

Who would defend the total elimination of research in vocational education? Probably not the teachers, students or parents because they have not been stakeholders in the enterprise. It is time that we begin to "ground" more of our research in reality, identify problems important to those we serve, provide workable solutions to their problems, and conduct research with them, not in spite of them.

Hopefully, this paper will stimulate a fuller and more vigorous discussion of the implications of research focused on integration and application as we continue shaping our definition of scholarship in the discipline.

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