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Eleven Thoughts on Research in Higher Education

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1. *The spirit of research*

Research is the effort to find things out, intentionally and systematically. This is true in education as in the physical or life sciences. The methods used in research in different disciplines are different, but the spirit is the same -- to add to the sum of knowledge. Often in the field of education that means to clarify what is vaguely known but not clearly understood. For example, we know that motivation is a crucial element in education, but we know much less about what generates motivation in students, or how to encourage or sustain it. That is what research is for.

2. *The instrument in research*

a. Students of higher education have a great advantage over researchers and scholars in most other fields. We ourselves are part of what we study; we are employed by the institutions whose nature and processes we try to understand; we are ourselves constantly engaged in the teaching and learning which is at the heart of our inquiries. Therefore, our first and best instrument is ourselves, our own capacity to listen, to see, and to question what we experience as teachers, researchers, administrators, colleagues, students.

b. We all know how much can be learned about higher educational institutions and processes by questioning others. But if our best source of knowledge about higher education is our own experience as teachers and learners, the knowledge may lie there unused, as if in a scroll in a jar in a cave, unless we bring it forth and ask questions of it, seeking the broader significance of our own memories of our life as students and teachers.

c. The most powerful instruments in educational research are a researcher's eyes and ears, enabling him to see and hear what is happening in educational situations, and a mind stocked with questions and ideas about what the observer is seeing and hearing. Such an observer comes to the situation with many tentative hypotheses regarding the meaning of what is seen and heard, and is constantly testing and refining those hypotheses against the evidence before him.

3. *Reading and experience*

Students of higher education need both to attend closely to our own experience, and to transcend its limitations. Formal studies and wide reading in education can expand the stock of questions and ideas that we bring to our research, and extend our knowledge beyond our own experience. But that derivative knowledge gains much of its value when tested against our own experience as students, teachers, administrators.

4. *Research and degree*

It is not necessary to have a higher degree in Education in order to do research in education, at any level. Indeed, such degrees are sometimes a handicap, in teaching orthodox ways of studying education that mimic the methods of natural scientists, seeking to gain status for the field of Education in the world of science and scholarship. Formal studies in education can be useful in broadening the perspectives of students, exposing them to experience beyond their own, and to a variety of issues and questions that they may not have come to on their own. It does not always do that.

5. *Various levels*

As we move from the study of broad international developments in higher education, like the move in the past half century from elite to mass to universal access, down to the level of classroom instruction and the processes of teaching and learning, the methods of investigation change. We need to recognize that conditions at each level affect what we find at other levels -- they are dynamically related. An obvious example: the nature and perhaps the quality of teaching in a university is affected by the ratio of teachers and students there; but that in turn is determined by the university's budget, set by Ministers and governments, or by the market.

6. *A debate disguised as research*

A very large fraction -- perhaps the greater part -- of all

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educational "research" is carried out to demonstrate what the authors already believe to be true, or wish to be true. It thus is not research in the true sense, but is a contribution to a debate disguised as research. For example, much of the research on the influence of class size on academic performance in the US has this character, of being nearly unaffected by empirical evidence.

7. *The biggest enemy*

The biggest enemy of good educational research is this tendency to know what ought to be done in education before the research is begun, and then finding what one knew had to be there, or ought to be there. This fact partly accounts for the weakness of educational research in affecting educational policy. Policy makers often assume that educational research is merely a partisan argument in disguise, and ignore it.

8. *Negative evidence*

As in teaching, negative evidence, evidence at odds with our current understandings or preferences, is the source of important extensions of knowledge. How we treat negative evidence - indeed, whether we allow ourselves to gather it at all -- is perhaps the most important decision we make as researchers. That is both a scientific and a moral decision. Not surprisingly, it affects both the quality and the credibility of our discoveries.

9. *The next biggest enemy*

After the tendency to find what one is looking for, the next biggest enemy of good work in education is timidity. In educational research, students and researchers alike are often afraid to question what is already conventionally

"known," the conventional wisdom in the field. To be bold runs the risk of being wrong, which timid researchers fear. But as Albert Einstein once said, "If you never run the risk of being wrong, you will never be right about anything important."

10. *For example...*

It has been said that "For example is no proof." But "for example" begins to bring evidence to bear on an idea or hypothesis. And that is not a bad beginning in a field in which "proof" of invariant relationships is not possible, but where we are always stating relationships in terms of probabilities while specifying contexts. However, while "for example" is a good beginning to research, it is only a beginning.

11. *The first step*

The names of the several social sciences -- psychology, social psychology, anthropology, sociology, economics, history, politics - are convenient names for departments, and for the specialization of graduate studies. But life, and the life of institutions, is no respecter of departmental or disciplinary lines. To understand what goes on in a classroom or between a teacher and a student requires some understanding of all those dimensions of teaching and learning. The first task of a student of education is to recognize that in principle he or she should be able to bring all the perspectives of the social sciences as well as one's own life experience to bear on an educational issue or question. That is the work of a lifetime. The first step is to transcend the discipline in which the researcher took his degree, and begin to think in the categories of at least one other discipline. This first step is the hardest.