Teaching Educational Research Through General Semantics

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I begin my course on educational research by relating a famous story told at Harvard Law School in which 175 eager, albeit anxious, first-year law students await their first professor in their first course. A middle-aged, scholarly-looking gentleman dressed in a dapper suit enters the huge auditorium. Approaching the podium, he peers out at his students: "You," pointing to a male student in the rear of the auditorium, "state the facts in the case before you." Nervously and hurriedly, 175 students review the case as the identified student selected offers no response. The professor repeats his request, but the student remains frozen. Again the request: "State the facts in the case before you." The student gives an inadequate answer. The professor nonchalantly reaches into his pocket, takes out a coin and says, "Take this dime, call your mother, and tell her to pick you up because you'll never become a lawyer." Shocked, yet somewhat relieved, the 174 other students anxiously stir. "You heard what I said. Take this dime and tell your mother to pick you up." The unfortunate target rises and walks slowly towards the stage amidst hushed silenced. Suddenly, the victim looks up and shouts, "Sir, you are a bastard.' Without batting an eyelash, the professor looks up and says "Go back to your seat. You're beginning to think like a lawyer."

"This story," I inform my class, "epitomizes the purpose of law school: to instill habits of skepticism, verbal aggressiveness, and the readiness to challenge the authority of a lawyer." My purposes in teaching this course are very different from that professor at Harvard. I do, however, want to help you begin to *think and act* as educational researchers. Toward these ends, I not only provide hands-on activities to apply many principles of research, but incorporate the study of "general semantics" in order to help students eschew myopic and narrow frames of reference while conducting research.

What is General Semantics?

Although defined variously, most agree "general semantics" is concerned with ways of increasing the truth content of our language, which inevitably influences our perceptions of the world. To achieve this, general semanticists examine the relationship among language, thought, and human behavior. More specifically, the field of general semantics is based on the principle that language is purely capricious. In other words, no inherent relationship exists between a word and what it represents. Be-

cause many of us only speak one language, we unconsciously assume an inherent relationship between words (verbal maps) and what they represent. Calling an object a "chair" is arbitrary, for example. The word "chair" in English no more accurately describes what it is than calling it a "key say" in Hebrew. There are as many words for things as there are languages; and there is no *right* one.

The arbitrariness of language, representing only one of many principles of general semantics, was first systematized by Alfred Korzybski. In *Science and Sanity* (1958) he laid the groundwork for what became known as "general semantics" (Bois, 1967). Korzybski, a Polish scientist and engineer, became convinced that discourse framed in right-wrong, yes-no, true-false, or what he called an "Aristotelian" way of thinking was potentially limiting (de Bono, 1972), for phenomena do not lend themselves to such dichotomous thinking. For Korzybski, reality is too complex and diverse to rely on one perspective in pursuing knowledge, truth, and inquiry. Thus, Korzybski's non-Aristotelian formulations held we could not fully define reality, all theories were to some extent tentative, and language is arbitrary. "Korzybski denied the identity of theory and reality by saying, 'Whatever you *say* a thing is, it is not.'" (Pula, 1970, p.153).

Emanating from this non-Aristotelian premise is another of Korzybski's contributions known as "multiordinality." Given the unreliability and inadequacy of language to precisely describe phenomena, Korzybski maintained that the same word often has very different meanings depending on, for instance, the context and manner in which it is spoken and expressed. Multiple meanings (multiordinality) are common and have significant implications for how we communicate. For example, I might ask you the following three questions: Who crosses the bridge on your nose?; How can you sharpen your shoulder blades?; and Does the calf on your leg eat the corn on your toe? (Berman, 1974). Despite an obviously high degree of social acceptance and agreement of meaning among people, misunderstandings remain too common because we unconsciously expect people to have the same understanding we do. Meanings reside within people, not words. Confusion regarding this basic premise often leads to errors in thinking, communication, and behavior.

General semantics helps people use language more accurately. It concerns itself with improving correspondence between words we use to describe reality and the structure of reality itself. Conceived as such, the study of general semantics has important implications for the teaching and practice of educational research.

Doing Educational Research

As educational researchers we are bound by our perspectives, our unique vantage points. Reality is perceived and understood in light of our belief systems which are, in turn, based on assumptions from our experiences or "semantic environments." In other words, our belief systems are intimately connected to the language we use to articulate and communicate meanings (Wittgenstein, 1958; Brown, 1958) which influence our actions and behaviors. In short, how we think shapes the world in which we live.

Too often, educational researchers (especially neophytes) underestimate the complexity of classrooms. They study dogmatic views, obfuscate distinctions, and alternate ways of seeing; the obvious and the readily observable lead to simplistic explanations and, as Berman (1974) notes, "a lust for the absolute." Typically unexamined beliefs and assumptions about teaching and learning underlie this "allness attitude." For example, the belief that teaching is chiefly a matter of telling and showing while learning is largely a matter of committing to memory what has been told or read affects how we expect teachers to teach and students to learn.

Are such beliefs immutable? Faced with the specter of bias, can educational researchers find "apertures in the wall of what is taken for granted which illuminate these webs of obscurity" (Greene, 1973, p.263)? What are the implications of the study of general semantics for those who wish to be educational researchers?

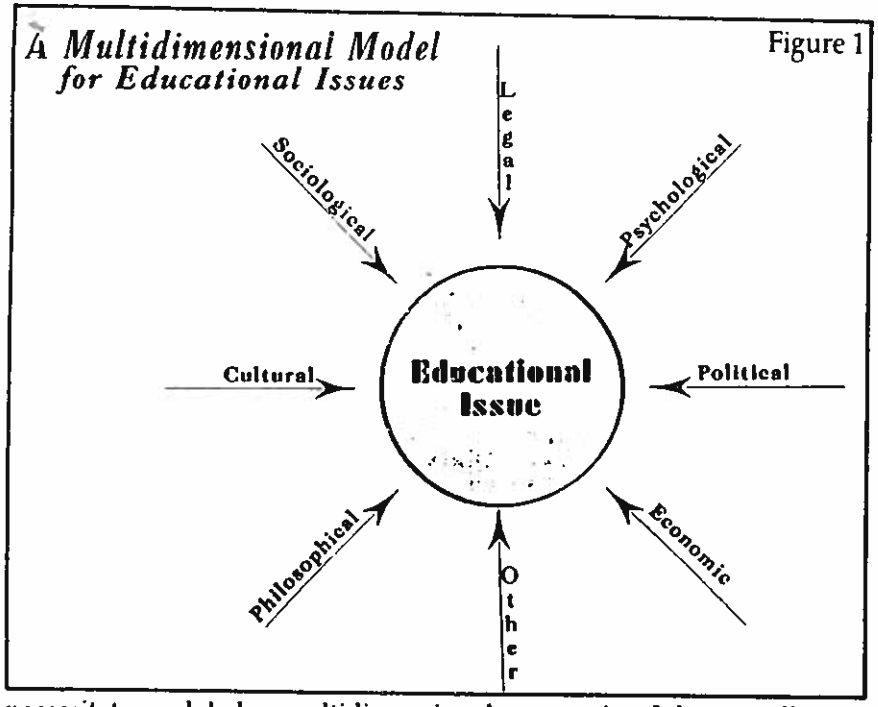
Course Description

I begin my graduate level course by asking students to walk over to the window. As they peer through the window I ask them to describe what they see, recording responses on the board. "Is there anything else?" "Is what you are seeing representative of what is out there?" "Is what you are describing accurate of what you have seen?" Students assume that their responses are accurate, if not definitive, descriptions of "what's out there."

I ask them now to examine and record what they know about a chair at the front of the room, telling them the word "Taiwan" is imprinted on the underside. Nearly every student writes that the chair is made in Taiwan. After a brief and often intense discussion it becomes apparent students have not thoroughly examined their assumptions and perceptions; a discrepancy between the structure of their verbal maps and the structure of reality itself is readily discernible.

Our assumptions affect what we see and how we interpret meaning. As researchers, we should try to neutralize assumptions to remain objective. Doing research demands understanding that the chair may or may not be made in Taiwan. Additional information is needed before a conclusive statement can be made about the origin of the object. Seeing life through multiple lenses or frames is a better way of ensuring a more accurate understanding of "what's out there."

Paraphrasing Nietzsche, I explain "all seeing is essentially perspective and so is all knowing." I read *It Looks Like This* (Webber, 1976) to students and have them peruse *The True Story of the Three Little Pigs* (Wolf, 1989) to discuss the implications of these stories for their work as educational researchers. Though researchers attempt to explain phenomena systematically through the application of the scientific, to know about anything



necessitates a global or multidimensional perspective. I draw an illustration (Figure 1) on the board and explain that multiple perspectives enlighten and clarify educational issues. To investigate bilingual education, for example, without attending many reference points will yield incomplete, if not inaccurate, assessments, for each perspective sheds light. Employing multiple perspectives provides a complete understanding.

The metaphor of detective can, I suggest, inform our work as educational researchers. If a detective arrived on the scene of an automobile accident and interviewed the drivers without attending to bystanders or witnesses, the detective would not adequately ascertain the facts. Moreover, if one driver was an elderly woman and the other a 40-year-old dressed neatly in a blue suit, the detective could possibly infer an investigation was unwarranted. In this case, the assumptions and conclusions may be misleading and inaccurate without the benefit of a thorough investigation.

Educational researchers are detectives of sorts. We collect an array of data to inform conclusions we can justifiably derive. Limiting data collection sources may lead to incomplete analyses, if not misevaluations. Although general semanticists originally questioned the truth claims of quantitative research (e.g., Payne, 1977), qualitative research is no less susceptible to misevaluations, a point that certainly needs scrutiny.

Qualitative inquiry, now legitimate within the educational community, has been foreshadowed by quantitative analyses, dominated by a single model of social research, the scientific method, and the logic which underpins it, positivism. For practitioners and theorists, ontological (being) and

epistemological (knowledge) assumptions of this dominant perspective have shaped the kind of methodology accepted in the field, precluding scholars in various specialties within education from examining alternative methods of inquiry (Hitchcock & Hughes, 1991).

Although qualitative perspectives have gained acceptance, ontological and epistemological questions regarding their "truth value" (Lincoln & Guba, 1985, p.290) persist. The credibility of qualitative perspectives is enhanced, I explain to students, by employing techniques like triangulation. "Triangulation is the act of bringing more than one source of data to bear on a single point" (Marshall & Rossman, 1989, p.146). Therefore, I tell my students that incorporating multiple sources of data is critical to ensuring a more "accurate" view of reality.

To demonstrate the strength of triangulation, groups of students develop a problem and select different data collection techniques for each person (e.g., interview, questionnaire, kinesics, etc.). They confer, initially defining the problem, but then work independently for two weeks gathering data using only one technique. When they reconvene to share and develop tentative conclusions, I encourage them to address questions such as, "Did my observations, findings, and conclusions coincide with those by other members in my group?; "How was my data collection limiting?"; "How does the combination of techniques offer greater insights into the problem?" Students realize triangulation rests on the assumption the weakness in a single technique will be compensated by others (Jick, 1979).

Assignments, then, especially during the first semester of this year-long course, encourage students to use an array of data collection techniques, hopefully precluding myopia and provincialism that lead to unidimensional thinking about a given topic. To this end, students complete two assignments prior to undertaking a personal research project.

First, I ask them to select some sort of field site (e.g., health care facility, restaurant, college cafeteria). They must describe the environment and interactions therein during a specified time frame, using as many techniques as feasible, and report their findings in terms of how each technique offers a unique dimension to the "reality" of their particular situation.

In a second assignment, designed to help view situations from different perspectives, students describe how people in a given setting might view a particular situation. A student, for instance, might describe a waitress, customer, and cash register attendant differently as he/she view services offered in a restaurant. To support this assignment. we watch Kurosawa's famous film "Rashomon," which recounts a murder through the eyes of several witnesses. Student write four different versions of what happened and are encouraged through discussions, to realize and appreciate the construction of reality and how "truth" depends on one's perspective.

Not surprisingly, therefore, I encourage students to use a mixed methodology design, with both qualitative and quantitative perspectives, designs, data collection techniques, and analyses (Creswell, 1994). Using one mo-

dality is limiting and will not reveal all that is known about the impact of a particular treatment. As students explore specific issues or problems of concern, I encourage them to view the problem from a multi-dimensional perspective. Students realize the complexity of the "world of reality" and that, although all cannot be known about anything (a central premise of general semantics called the "allness principle"), assuming multiple perspectives promises them a more complex and, therefore, realistic insight into their investigation.

I establish criteria (in question form) to grade the final research project: Is the topic relevant and meaningful? Does the paper reflect a knowledge and understanding of the content of the topic researched? Are appropriate, varied and sufficient authorities cited? Is the paper well-organized and written? Is the paper sufficiently analytical? Are at least four data collection techniques used? Are both quantitative and qualitative assessments used when appropriate? Does the paper reflect the tenor of general semantics?

Another Lesson from General Semantics

One important lesson from general semantics I review with my neophyte educational researchers is to always make explicit their hidden premises. We all have beliefs and assumptions which shape our perspectives and lend themselves to questionable inferences based on inadequate data. "Avoid making snap judgments," I tell them. As you observe a class ask, "What am I assuming?" Withholding (or at least recognizing) one's assumptions and judgments until a thorough consideration of multiple data sources is conducted is always wise (Morain, 1969).

Misevaluations are not uncommon when analyzing data derived from interviews. For example, one student, seeking to ascertain a principal's attitude to school reform, assumed a particular response advocated the demise of bureaucracy as the organizational structure of schooling. While the principal used the word "bureaucracy" when referring to his inability to obtain resources for a particular school program, "bureaucracy" for the interviewer connoted red tape, waste, and inefficiency. He assumed the principal concurred that dysfunctional aspects of bureaucracy in schools precluded successful reform and little, if any, substantive changes could occur until alternative forms of school organizations were considered. At my suggestion, I urged this student to pursue this line of questioning with the principal and not to assume he disavowed bureaucracy. In a follow-up interview, the principal acknowledged the importance of bureaucracy in providing stability and structure, while maintaining change in a bureaucracy *was* feasible. He was not advocating dissolution of bureaucracy.

As this episode suggests, general semantics help us understand language more scientifically. Rather than asking the principal what he meant by "bureaucracy," this student incorporated his own assumptions of the meaning and implications of bureaucracy. General semantics offers much into interpreting words from interviews, case studies, surveys, and other qualitative sources. Ultimately, educational research is more meaningful and accurate when we become aware of some of the assumptions we make in thinking, communicating, and behaving.

Conclusion

The task of an educational researcher to understand how individuals come to understand reality, language, and behavior are complex, and any attempt to describe and interpret phenomena is necessarily incomplete. General semantics suggests that every point of view has built-in assumptions. While we gain varied perspectives, we simultaneously admit to inherent biases in any investigation. Nonetheless, our goal as educational researchers is to better describe and understand various phenomena of schooling. To accomplish this is no mean task. It involves sensitivity, awareness, and a perspective fostering insights and vistas. Can we as educational researchers fail to comprehend how our language influences what we understand as truth? I think not.

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