# Integral Methodological Pluralism in Educational Research

Nancy T. Davis – Florida State University

Paper presented at the Integral Theory Conference
Mount Pleasant, California – August, 2008

In education there are multiple methods and methodologies that can be used to develop more detailed and insightful understanding of what it means to teach and learn. Ethnography, phenomenology, quasi-experimentation, behavioral studies, transpersonal methodologies, hermeneutics, systems analysis, causal analysis, collaborative inquiry—the list goes on. So, which of these methods is the best? Integral theory (Wilber, 1995, 1998, 2000, 2005, 2006) also known as AQAL theory says "All of them." All of these perspectives inform us and represent important dimensions of human understanding and experience. However, each by itself, while presenting a valid and useful perspective, is partial. The more perspectives we are able to include in developing our holistic picture of what it means to teach and learn, the more complete the picture is. To further the human quest for knowledge in an inclusive yet critical manner, Wilber proposes that we develop Integral Methodological Pluralism (IMP) that, while including all, separates each in a way that clarifies its perspective and its limitations.

As educational academics one of our primary responsibilities is to assist students in design and evaluation of quality research. Naturally, educational researchers tend to foreground the types of research we have experience and expertise with and to neglect other research perspectives. When only limited forms of research are valued, students come away with a distorted picture of inquiry into teaching and learning. This paper looks at various research perspectives and provides questions that can direct those learning about research to consider the most appropriate methods and methodologies for determining appropriate research techniques.

## Integral Theory

Integral theory can be traced back to efforts originating in the 70's to create a grand unification theory or theory of everything. Many theorists, particularly from the field of physics, sought explanations or models that would be comprehensive and inclusive. With developing technologies we stand at the brink of possibility for all of human civilization to have access to all of human knowledge and wisdom. It seems

logical that a theory that is inclusive and comprehensive of human ways of knowing can be developed. This is the attempt of Ken Wilber and the Integral movement alive today.

> Integral means:
>
> … to integrate, to bring together, to join, to link, to embrace. Not in the sense of uniformity, and not in the sense of ironing out all the wonderful differences, colors, zigs and zags of a rainbow-hued humanity, but in the sense of unity-in-diversity, shared commonalities along with our wonderful differences. (Wilber, 2000, p. 2)

Wilber created a map of human consciousness, a theory of everything, by seeking the commonalities across many of the world's great wisdoms (philosophies, religions, sciences, arts). He followed a specific and rigorous, rational approach in integrating all bodies of human knowledge and experience. In his model Wilber integrates sciences, philosophies, religions, and cultures into a single map of human consciousness, which at the same time preserves the unique truths of each. The result is a comprehensive map of human capacities that Wilber (2003) calls AQAL (All quadrants, line, levels, states and types) theory. AQAL theory contains five components, quadrants, lines, levels, states and types.

One way to understand Integral Methodological Pluralism is to start with the quadrants [see Figure 1]. Wilber poses that an occasion (phenomena, object, event) can be viewed from both interior and exterior dimensions (an inside and an outside) as well as both individual and collective dimensions (both an unique individual being and part of collectives of individuals where the individual becomes part of something more complex—i.e., culture). These perspectives are reflected in languages of the world as the predominant pronouns (1st person-I; 2nd person –we; third person-it); or art, science, morals; or the Good, the True, the Beautiful; or Kant's Pure Reason, Practical Reason, Judgment; and so on. These perspectives are the objective truth of exterior

| | Interior | Exterior |
|---|---|---|
| **Individual** | **Subjective**<br>**Intentions or beliefs**<br><br>**First person "I" perspective**<br><br><br>**The Beautiful**<br>**Aesthetic** | **Objective**<br>**Actions or behaviors**<br><br>**Third person – "it" perspective**<br><br>**The True**<br>**Science** |
| **Collective** | **Intersubjective**<br>**Cultural norms**<br><br>**Second person "we" perspective**<br><br>**The Good**<br>**Morals** | **Inter-objective (systems)**<br>**Interactions within systems**<br><br>**Third person plural –"its" perspective**<br><br>**The True**<br>**Science of systems** |

Figure 1: *Wilber's 4-quadrant model of Human consciousness*

science (it and its); the subjective truth of aesthetics (I); and the subjective truth of morals (we).

Within each of these domains appropriate forms of inquiry [Figure 2] are: the subjective knowing of intentional; the objective sensing of the behavioral; the intersubjective understanding of the cultural; and the interobjective observation of the social (system). Any inquiry seeks evidence, but what is accepted as evidence within each of the domains is different. Within the exterior domains what is recognized as evidence is measurable, describable, and/or observed by the inquirer. Within the interior domains what is valued as evidence is the meaning that the individual or collective makes and is thus interpreted by the researcher.

The questions shaping the inquiry in each domain are different. For subjective and intersubjective inquiry, questions of interest focus on "What meaning is being made?" either by the individual (intentional) or the collective (cultural). The left hand quadrants focus on developing subjective meaning of the individual or group and therefore, use interpretive methodologies. For objective and interobjective inquiry, the questions of interest focus on "What is happening here?" either of the individual (behavioral) or of the collective (system). The right hand quadrants focus on developing objective measures of the individual or collective and, therefore, use descriptive methodologies.

Quality is a vital issue in planning and conducting educational research. In any research study we want to know: 1) that the participants are not fooling the researcher, 2) that the participants and the researcher are not fooling themselves; and 3) that the

researcher is not fooling the reader of the research. We ask these questions when we want to determine the quality of the research. How we develop confidence in research findings depends upon aligning what we want to know with how we go about finding out—the research questions with the methodology.

Within each of the quadrants differing ways of answering these questions depends upon the ontology of the research methodology and the aim of the inquiry, thus differing quality criteria are used. For the upper right quadrant that is focused on the behavior of individual objects or beings, an ontology of positivism is use as we are seeking to find an objective, propositional truth, which corresponds to reality. The aim of inquiry is to explain, control and predict. The quality criteria are therefore, reliability and validity. We want to know that our instruments are measuring what we think they are measuring—validity, and that the observation is repeatable—reliability.

| | **Interior**<br>**What meaning is being made?**<br>**Interpretive** | **Exterior**<br>**What is happening here?**<br>**Descriptive** |
|---|---|---|
| **Individual** | **Subjective**<br>**Intentions or beliefs**<br><br>**Goal of Inquiry: Truthfulness**<br><br>**Inquiry Aim: Understanding**<br><br>**Quality criteria: Trustworthiness, sincerity** | **Objective (Measurable, observable)**<br>**Actions or behaviors**<br><br>**Goal of Inquiry: Propositional Truth**<br><br>**Inquiry Aim: Explanation, prediction, control**<br><br>**Quality Criteria: Validity, reliability** |
| **Collective** | **Intersubjective**<br><br>**Cultural norms and expectations**<br><br>**Goal of inquiry: Justness**<br><br>**Inquiry Aim: Shared understanding, consensus**<br><br>**Quality criteria: Fairness, authenticity** | **Inter-objective (systems)**<br><br>**Interactions within systems**<br><br>**Goal of inquiry: Functional fit**<br><br>**Inquiry Aim: Explanation, prediction, control**<br><br>**Quality criteria: Significance, probability** |

Figure 2: *Inquiry within the 4 quadrants*

For the lower right quadrant we are looking for the behavior of individuals or objects within a system. We want to know how the system operates and how the individuals function within the system. Again, an ontology of positivism is used as we seek to find an objective truth that corresponds to reality with an aim of explanation,

control and/or prediction. However, systems are more than a sum of the individuals as they become part of a collective, and finding the individual's function within the system is a purpose of inquiry. Thus, the criterion for goodness is *functional fit,* which again looks at validity and reliability in the predictive forms of significance and probability.

For the upper left quadrant the focus is on the meaning making of an individual and the ontology is relativistic. The aim of the inquiry is to develop understanding. The goal for inquiry is truthfulness, as we want to know if we can trust if the individual is speaking with integrity and being sincere. We also want to know that this individual is not fooling him or herself. The criterion for quality in this domain is trustworthiness.

In the lower left quadrant we are looking for the meaning being made within a culture or collective of individuals. The ontology guiding the research is relativistic and the inquirer interprets understanding with the collective. We want to know how individuals negotiate meaning and come to shared understandings of what is appropriate within a culture. From this intersubjective perspective, quality of inquiry is based on whether all voices within the culture have been fairly represented and that we have achieved a mutual understanding. Thus, the criteria for quality are fairness and authenticity (ontological, educative, tactical & catalytic) (Guba & Lincoln, 1989).

Now, taking this one step further. In each of the four quadrants the inquirer can look at them from either an interior or exterior perspective, from the inside or outside [Figure 4]. These standpoints are what Wilber (2005) terms the 8 fundamental or

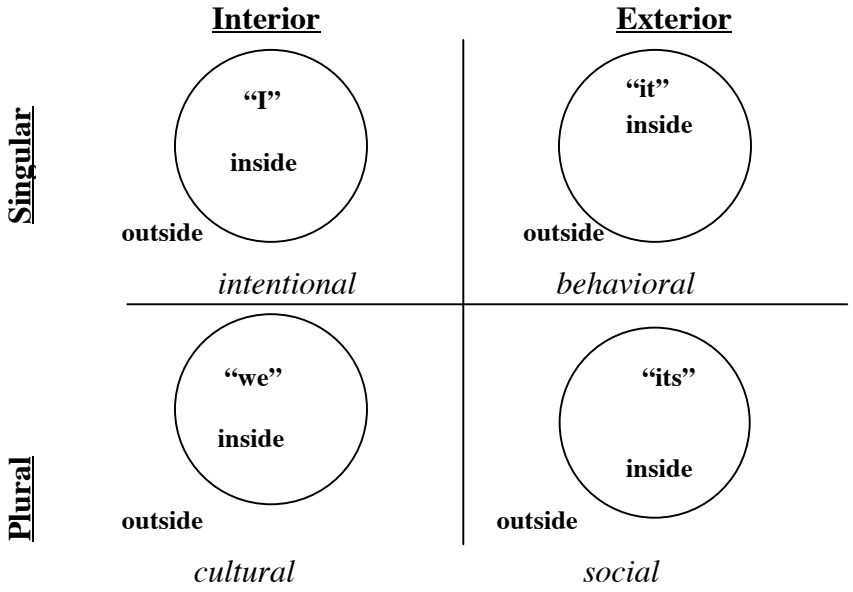


Figure 3. *Eight fundamental perspectives*

indigenous perspectives.

Simply taken, start with the upper left quadrant and you can see that inquiry can be viewed from the individual's perspective as one examines one's own thinking and experiences, through reflexive methods such as introspection, autobiography, autoethnography, journaling, meditation, etc. An inquirer might also look at another individual's sensemaking from the "outside" of that individual through phenomenological research such as psychotherapy, interviewing, dialogue analysis, structural methods of analysis and transpersonal methodologies (Braud & Anderson, 1998).

In the lower left quadrant, insiders' study of the culture of which they are a part, focus on developing shared understanding and requires negotiation of the hermeneutic/dialectic methodologies (Guba & Lincoln, 1989). Much of the current focus on participatory research comes from this perspective. But inquirers might also look at a culture from the "outside" and use such methodologies as ethnography, naturalistic inquiry, dialogic analysis, or anthropological methods.

In the upper right quadrant where objectivity is most valued, an "insider" might look at him or herself taking observational measurements or descriptions such as might be done to improve actions such as sports or teaching. The inquiry could be self study through video analysis of behaviors and actions. An "outsider" might also look at an individual's actions and behaviors and many scientific studies involve the methods of this perspective. In science education, studies of classrooms using quasi-experimental methods (Cook and Campbell, 1979) come from this perspective.

In the lower right quadrant, the focus is on the system rather than an individual. An inside view of an organization using methodologies of social autopoiesis (Luhmman, 1995) or quality management measures (Senge, 1990) come from this perspective. As organizations seek to understand their own systems and correlative variables influencing outcomes, this perspective provides utility. An outside perspective would use similar methodologies but be framed from a more evaluative perspective.

| | **Interior**<br>**What meaning is being made?**<br>**Interpretive** | **Exterior**<br>**What is happening here?**<br>**Descriptive** |
|---|---|---|
| **Individual** | ***Subjective***<br>**Phenomenology, psychotherapy autobiography, autoethnography, dialogue analysis, psychotherapy, contemplative methodologies, reflexive journaling** | ***Objective***<br>**Experimental studies, Behavioral analysis, scientific methods, quasi-experimentation, video-analysis** |
| **Collective** | ***Intersubjective***<br>**Ethnography, cultural anthropology, dialogue analysis, hermeneutics, linguistic interaction analysis collective values** | ***Inter-objective (systems)***<br>**Systems analysis, correlational studies, population studies, behavioral interaction analysis** |

Figure 4. *Methodologies of Inquiry*

The perspective determines the appropriate methods to use in inquiry [Figure 4]. All of these methods of inquiry are valid and contribute valuable knowledge to our understanding of the focus of inquiry. However, misapplication of methods to questions is observed often in educational research. Perhaps in part because education has been so influenced by the scientific paradigm, the methods have often been misapplied to the questions we seek to understand. We have applied validity criteria of one domain onto inquiry into other domains, such as when we interpret teacher beliefs by watching their behaviors. And vice-versa we have predicted behaviors based on interviews about their beliefs. On these occasions the quality of the research is suspect.

## Application of IMP to inquiry teaching

To get a better understanding of this model, an example of IMP is taken from science education where the focus of the research is to develop a better understanding of inquiry science teaching. The questions are posed from differing perspectives and are located within the 4 quadrants [Figure 5]. If the researcher seeks to understand meaning that an individual teacher makes of inquiry teaching, questions are focused in the upper left quadrant. If the researcher wants to understand what is happening when the teacher enacts inquiry, questions fall into the upper right quadrant. If the researcher wants to understand what is happening behaviorally within a classroom or to understand factors that correlate with inquiry teaching then methods of the lower right quadrant are

appropriate. If understanding of what occurs in the classroom culture as the students and teacher makes sense of inquiry teaching then methods of the lower left are suitable.

| | **Interior**<br>**What meaning is being made?**<br>**Interpretive** | **Exterior**<br>**What is happening here?**<br>**Descriptive** |
|---|---|---|
| **Individual** | **Research Questions:**<br><br>**Inside: How do I make sense of teaching through inquiry (individual teacher)?**<br><br>**Outside: What are individual teacher's beliefs about inquiry? What do teachers believe constrains their ability to use teach using inquiry?** | **Research Questions:**<br><br>**Inside: What questions do I ask and to whom do I ask them when teaching using inquiry?**<br><br>**Outside:**<br>**What questioning strategies do teachers exhibit when teaching inquiry?** |
| **Collective** | **Research Questions:**<br><br>**Inside: How do my students make meaning in groups as they collaborate in inquiry activities?**<br><br>**Outside:**<br>**How does the culture of the school affect teachers' ability to teach using inquiry?** | **Research Questions:**<br><br>**Inside How do classroom dynamics change when I am teaching using inquiry?**<br><br>**Outside:**<br>**Which students' achievement levels increase with inquiry teaching?** |

Figure 5: *Inquiry into inquiry teaching*

To study all of the perspectives into inquiry based teaching requires using and understanding multiple methodologies. Realistically and practically, most studies take only one or maybe two perspectives. Aligning the questions and methodologies is crucial for ensuring valid contributions of the inquiry to understanding of the phenomena studied. Here is the point: we can measure or describe a students behaviors repeatedly, but we can never understand how that student constructs meaning until we talk with him or her; we can watch a teacher using inquiry based teaching repeatedly, but we will never understand what meaning or value the teacher is making of that unless we talk with him or her. You will not know absolutely how he or she is thinking about the experience regardless, but we can develop more confidence through methods that generate trust.

## Conclusion

This paper explores the application of the quadrants aspect of AQAL Theory to educational research. Developing this understanding helps to value the multiple

perspectives and contributions of research to our understanding of education. The use of this model can assist students as they formulate their own research projects. By having students reflect on the questions of what it is that they want to inquire into, do they wish to develop understanding of interior meaning making, or do they wish to describe what is happening? Do they want to examine themselves or others? Do they want to learn about individual's beliefs or actions or do they want to focus on more complex interactions in meaning making or in systems behaviors? Through reflection on these questions, students can then develop skills in the form(s) of inquiry they need to contribute to furthering knowledge.

Further application of the model addressing, lines, levels, states and types could enhance our understanding of the processes of inquiry and assist in developing and integral perspective of the problems we seek to address in education. Some examples exist from the business world, like Torbert's *Action Inquiry* (2004) that utilize and apply other aspects of AQAL theory. As we continue to learn include these qualities into educational research we can provide images of how we can build understanding of our present realities and shape a vision of a better world.

References:

Braud, W. & Anderson, R. (Eds.) *Transpersonal research methods for the social sciences: Honoring human experience*. Thousand Oaks, CA: Sage.

Cook, T. D & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Boston: Houghton Mifflin.

Denzin, E. & Lincoln, Y. (2005). *Handbook of qualitative research (3rd edition)*. Thousand Oaks, CA; Sage.

Guba, E. & Lincoln, Y. (1989). *Fourth generation evaluation*. Thousand Oaks, CA: Sage.

Senge, P. (1990). *The fifth discipline*. New York: Doubleday Currency.

Torbert, B. (2004) *Action inquiry: The secret of timely and transformational leadership*. San Francisco: Berrett-Koehler.

Wilber, K. (2006). *Integral spirituality*. Boston: Shambhala.

Wilber, K. (2003). *Kosmic consciousness*. A CD recording from Sounds True, Inc.

Wilber, K. (2000). *A theory of everything*. Boston: Shambhala.

Wilber, K. (1998). *Marriage of sense and soul: Integrating science and religion*. New York: Random House.

Wilber, K. (1995). *Sex, ecology, spirituality: The spirit of evolution*. Boston: Shambhala.

Inquiries, suggestions and comments can be addressed to Nancy T. Davis at ndavis@fsu.edu