

| Issue | Positivism | Postpositivism | Critical Theory | Constructivism | Participatory |
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| <p>Ontology: dealing with the nature of being</p> | <p>Naive realism - "real" reality but apprehensible</p> <p>REALIST: Reality exists independent of observer's perceptions and operates according to immutable natural laws that often take cause/effect form.</p> <p>TRUTH is defined as that set of statements that accurately describe reality.</p> | <p>Critical realism - "real" reality but only imperfectly and probabilistically apprehensible</p> | <p>Historical realism - virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallized over time</p> | <p>Relativism - local and specific co-constructed realities</p> <p>RELATIVIST: There exists multiple, socially constructed realities ungoverned by natural laws -- causal or otherwise.</p> <p>TRUTH is defined as consensus construction of the combined quantity and quality of info that provided the most powerful understanding that leads to action.</p> | <p>Participative reality - subjective-objective reality, co-created by mind and given cosmos</p> |
| <p>Epistemology: dealing with the nature of knowledge, its presuppositions, foundations, extent and validity</p> | <p>Dualist/objectivist (Knowledge is a phenomenon that exists external to the observer; the observer maintains a distance and studies the phenomenon (sometimes referred to as empiricism)); findings true</p> | <p>Modified dualist/objectivist; critical tradition/community; findings probably true</p> | <p>Transactional/subjectivist (Knowledge is created by inquiry through a dynamic interaction with the environment; knowing and being are the same thing); value-mediated findings</p> | <p>Transactional/subjectivist; co-created findings</p> | <p>Critical subjectivity in participatory transaction with cosmos; extended epistemology of experiential, propositional, and practical knowing; co-created findings</p> |
| <p>Methodology</p> | <p>Experimental/manipulative; verification of hypotheses; chiefly quantitative methods</p> | <p>Modified experimental/manipulative; critical multiplism; falsification of hypotheses; may</p> | <p>Dialogic/ dialectical</p> | <p>Hermeneutical/dialectical</p> <p>HERMENEUTIC (interpretation): seeks a dialectic (a</p> | <p>Political participation in collaborative action inquiry; primacy of the practical; use of language grounded</p> |

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| | INTERVENTIONIST seeks to control variables and neutralize contexts. The goal is to explain how something "really works" in order to predict and control. | include qualitative methods | | dialogue among differing views) that creates an ongoing process of iteration/analysis/critique/reiteration/reanalysis, etc. that leads to a joint construction of a case. The goal is understanding. | in shared experiential context |
| Nature of Knowledge | Verified hypotheses established as facts or laws | Nonfalsified hypotheses that are probable facts or laws | Structural/ historical insights | Individual and collective reconstructions sometimes coalescing around consensus | Extended epistemology: primacy of practical knowing; critical subjectivity; living knowledge |
| | | | | VARIATIONS: Action Research: solution to a local problem at a local site. Policy Studies: formulation, implementation & effectiveness | |
| Knowledge accumulation | Accretion - "building blocks" adding to "edifice of knowledge"; generalizations and cause-effect linkages | Accretion - "building blocks" adding to "edifice of knowledge"; generalizations and cause-effect linkages | Historical revisionism; generalizations by similarity | More informed and sophisticated reconstructions; vicarious experience | In communities of inquiry embedded in communities of practice |
| Goodness or quality criteria | Conventional benchmarks of "rigor": internal and external validity, reliability, and objectivity | Conventional benchmarks of "rigor": internal and external validity, reliability, and objectivity | Historical situatedness; erosion of ignorance and misapprehension; action stimulus | Trustworthiness and authenticity including catalyst for action | Congruence of experiential, presentational, and practical knowing; leads to action to transform the world in the service of human flourishing |

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| Values | Excluded - influence denied | Excluded - influence denied | Included - formative | | |
| Ethics | Extrinsic - tilt toward deception | Extrinsic - tilt toward deception | Intrinsic - moral tilt toward revelation | Intrinsic - process tilt toward revelation | Intrinsic - process tilt toward revelation |
| Inquirer Posture | "Disinterested scientist" as informer of decision makers, policy makers, and change agents | "Disinterested scientist" as informer of decision makers, policy makers, and change agents | "Transformative intellectual" as advocate and activist | "Passionate participant" as facilitator of multivoice reconstruction | Primary voice manifest through aware self-reflective action; secondary voices in illuminating theory, narrative, movement, song, dance, and other presentational forms |
| Training | Technical and quantitative; substantive theories | Technical; quantitative and qualitative; substantive theories | Resocialization; qualitative and quantitative; history; values of altruism, empowerment and liberation | Resocialization; qualitative and quantitative; history; values of altruism, empowerment and liberation | Co-researchers are initiators; facilitator/researcher as participant in the process; facilitator; competence, democratic |
| | <p>QUANTITATIVE METHODOLOGY</p> <p>Influenced by psychological research tradition</p> <p>Emphasis is on designing experiments, doing research with groups of students, and testing hypotheses using measurement and statistics.</p> <p>Numerical reporting</p> <p>Quantitative analysis</p> <p>Emphasizes explaining</p> | | | <p>QUALITATIVE METHODOLOGY</p> <p>Influenced by anthropological research traditions</p> <p>Focuses on a particular event, group of people, process, institution, or concept in a case study design</p> <p>Rich contextual descriptions</p> <p>Qualitative analysis</p> <p>Emphasizes understanding</p> | |

Modified from Egon G. Guba and Yvonna S. Lincoln, "Paradigmatic Controversies, Contradictions, and Emerging Confluences" In Norman K. Denzin & Yvonna S. Lincoln, Eds., *The Sage Handbook of Qualitative Research* 3rd ed. (Thousand Oaks, CA: Sage, 2005): 195-6; and Dr. Karen Keifer-Boyd, Penn State University, "The Heart of Research": http://sva74.sva.psu.edu/%7ecyberfem/aed502_f02/basics/intro.html