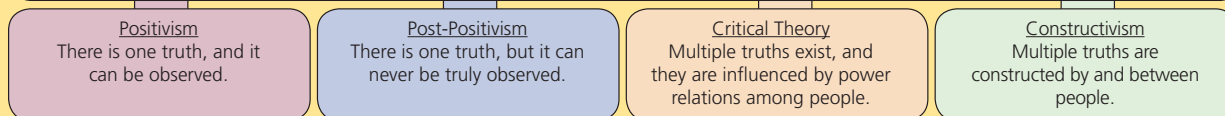


# AM Last Page: A Guide to Research Paradigms Relevant to Medical Education

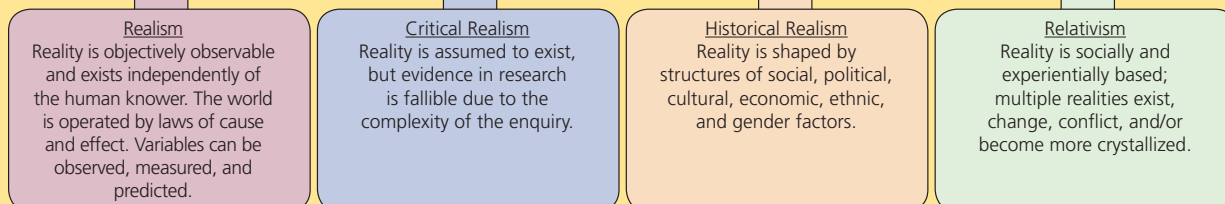
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In order to design or interpret qualitative and quantitative research, one should have some understanding of the assumptions that underpin them. Below, we provide an overview of some of the concepts underlying four philosophical paradigms in medical education research and illustrate the relationships between them.

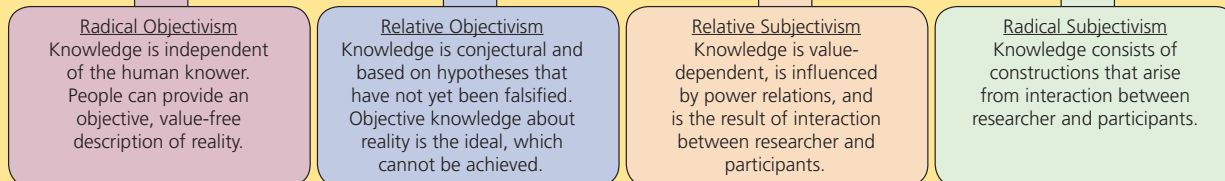
**Paradigm:** A philosophical framework that underlies and affects research activities. What are the assumptions underlying one's views on reality and knowledge? (Synonyms: theoretical or epistemological stance, world view)



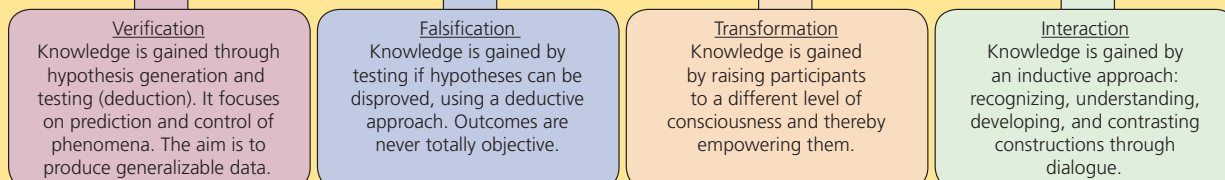
**Ontology:** Theory of the view on reality. What is the nature of physical and social reality?



**Epistemology:** Theory of knowledge. What are the origin, nature, and limits of knowledge about reality?



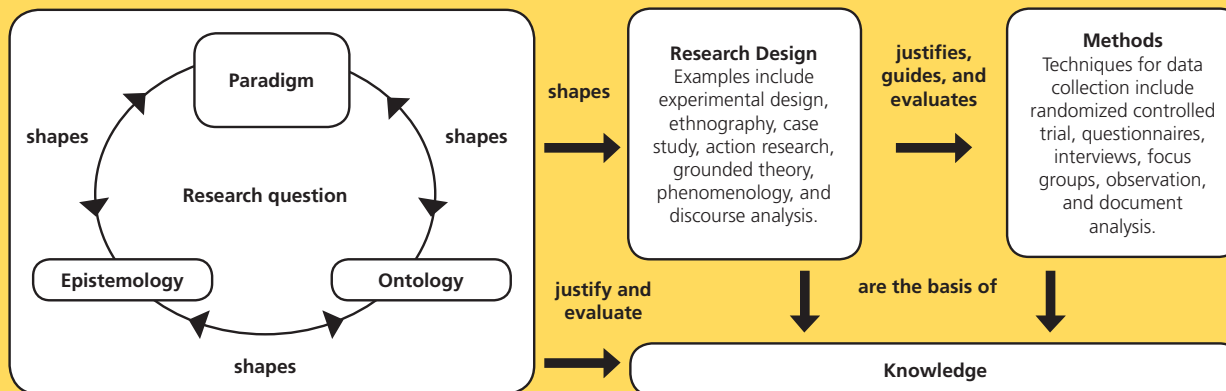
**Methodology:** Strategic approach to answer the research question and to gain knowledge. What is the research design?



Quantitative research

Qualitative research

As illustrated below, an understanding of research paradigms can guide researchers in designing and performing medical education research. Each step invites the researcher to consider underlying assumptions about knowledge and reality within the field of medical education and related disciplines.



**Suggestions for further reading:**

- Bunniss S, Kelly DR. Research paradigms in medical education research. *Med Educ.* 2010;44:358-366.
- Carter SM, Little M. Justifying knowledge, justifying method, taking action: Epistemologies, methodologies and methods in qualitative research. *Qual Health Res.* 2007;17:1316-1328.
- Illing J. *Thinking About Research: Frameworks, Ethics and Scholarship.* Edinburgh, UK: Association for the Study of Medical Education; 2007.