



## The Discussions of Positivism and Interpretivism

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**Abstract:** This paper aims to explore the philosophical theoretical foundations of two basic research paradigms, namely positivism and interpretivism. In the discussion process, literature in the relevant fields including academic papers and books is reviewed and used as support for the analysis. Firstly, the paper explores the differences between the positivist and interpretivist paradigms in terms of ontology and epistemology. The paper then goes on to critically analyze the shortcomings of interpretivism, including nihilism, susceptibility to bias, and neglect of ideological influences. Finally, this paper adopts the credibility, transferability, dependability, and confirmability theories to support the interpretivist perspective on research methods, i.e., qualitative research methods, from the educational field. This research will help researchers to better understand the differences between positivist and interpretivist paradigms and to choose the applicable research methods according to the research field.

**Keywords:** Paradigm, Positivism, Interpretivism, Reliability.

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## INTRODUCTION

According to Kuhn (2015), a paradigm is essentially a theoretical framework. It provides the sum of a set of hypotheses, ontology, epistemology, and methods for scientific research and is generally accepted by researchers (Scotland, 2012). The paradigm conforms to the understanding of people's knowledge and reality and lays the foundation for all philosophically based scientific research (Kuhn, 2015). And positivism and interpretivism are the two common paradigms used in philosophy for scientific research and analysis. According to Howell (2013), positivism originates from empiricist philosophy, which believes the truth of theories must be verified empirically. Ryan (2018) further claims that positivism adheres to the concept of natural science, that there must be logical relations within and between objects, and that the research of objects is to find these relations and to justify them

scientifically by means of rational tools. This guides the researcher to draw universal laws and conclusions based on repeated statistical results and generalizations. By contrast, interpretivism has its roots in symbolic interactionism as well as phenomenology, which believes that value- and theory-neutral facts do not exist, and that the way people regard objects determines the nature of objects (Weber & Henderson, 2012). Chen (1996) summarizes that this paradigm motivates researchers to seek experience and to consider different interpretations of particular social contexts in order to gain further depth.

Positivism and interpretivism have significant differences in ontology and epistemology, and they are highly controversial in the social sciences field. Based on these, this paper will compare these two paradigms in terms of ontology

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and epistemology, and then continue to analyze the place of interpretivism in the research field. Finally, the paper will adopt Lincoln and Guba's (2006) theories of credibility, transferability, dependability, and confirmability to support the interpretivist perspective on research methods, i.e., qualitative research methods, from the educational field.

### **Comparing positivism and interpretivism in terms of ontology and epistemology**

According to Heidegger (2013), ontology can be defined as the essence of reality. Thus, ontology is concerned with determining the nature of the existence of a specific phenomenon. On the other hand, epistemology refers to how the reality is known by the scientists (Carson et al., 2005). Hence, epistemology is concerned with the development of knowledge as well as the nature of objects. Furthermore, epistemology is considered to be an intra-researcher factor because it is also concerned with how researchers are viewing the world around them, and it is about how researchers distinguish the research matters between right and wrong (Ryan, 2018).

Based on the definitions of ontology and epistemology, according to Hudson and Ozanne (1988), positivist ontology holds a naïve realism view that the world is external and that there is a single objective reality for any studied situation or phenomenon, regardless of the researcher's views and beliefs. Reality is similar for all people, and people have the ability to interpret society through observation and measurement. Scotland (2012) further summarizes the main features of this paradigm as including objectivity, deductivism, phenomenism, and inductivism. This further emphasizes the importance of science and the exploration of laws for the acquisition of knowledge. By contrast, interpretivist ontology adopts a relativist view that perceives reality through intersubjectivity by considering meaning in research and understanding of social and experiential aspects. Specifically, reality can only be explained in a socially constructed sense. Saunders *et al.*, (2012) add that because of the complexities of individuals and social subject, there is often more than one truth.

In terms of epistemology, positivism believes in observable and measurable facts as a basis. To measure and observe cause-effect relations should aim at developing credible and meaningful data. Moreover, positivists believe that the argument for widespread rules and laws is to support and explore patterns or events observed within the organization (Carson et al., 2005). Contrary to interpretivism, which may be influenced by the subjective bias of the researcher, positivists adhere

to an objectivist viewpoint and maintain emotional neutrality by creating distance between themselves and the research participants in order not to be influenced by the preconceptions of the researcher. In this way, Howell (2013) asserts that the researcher can distinguish between reason and feeling and between science and personal experience, having achieved an accurate perception of natural phenomena. On the other hand, a major difference between interpretivism and positivism is that while positivism tries to derive universal rules to be generalizable across all populations without considering contextual variables, interpretivists focus on adding richness to the data collected (Riyami, 2015). Since interpretivism takes into account relativist ontology and subjective epistemology, humans are assumed to be inseparable from knowledge. Therefore, Moustakas (1994) claims that the interpretivist epistemology is the study of the interconnection between the research and the research subject, and it is more concerned with the meaning, voice, standpoint, experience, thoughts, and feelings expressed by the individual.

In addition, Tuli (2010) claims that since knowledge is the foundation of ontological presuppositions, the ontological and epistemological positions of interpretivism are interconnected. The ontological stance of interpretivism is based on constructivist ontology, which emphasizes the importance of cognitive orientation in interpretivism, arguing that social processes are driven by humans through interaction and action under the assumption that social structures are not naturally formed (Goldkuhl, 2012; Alharahsheh & Pius, 2020). Thus, the purpose of interpretivist research is to study how particular social groups or individuals formulate different realities and give them meaning, as well as to demonstrate how these norms explain their behavior. In general, the development of interpretivism is based on the critique of positivism in the social sciences field. Unlike positivism, which tries to generalize the observed social reality, interpretivism considers human beings as different from natural phenomena due to their competence to develop depth in meaning. Therefore, Wellington and Szczerbinski (2007) argue that interpretivism asserts that truth and knowledge depend on how people interpret reality in different histories and cultures, using narrative data for research, which is not the same as the research methods of the natural sciences.

### **The controversial positions of interpretivism**

According to Alharahsheh and Pius (2020), the rules in the positivist paradigm do not theorize the study of social science. Conversely, interpretivism considers the complexity of each

individual of the world and corresponding explanations, and this paradigm emphasizes that generalizations of universal patterns should not obscure the complexity of society either. Collins (2019) argues that interpretivism is related to idealistic philosophical positions, including hermeneutics, phenomenology, and social constructivism. These approaches reject the objectivist view that meaning exists in the world independently of consciousness.

Weber and Henderson (2012) point out that the material natural world becomes meaningful only after researchers deconstruct it and give meaning, which reveals that the interpretivist paradigm advocates examining the subjective meaning of humans, social, and cultural systems of understanding and practice. Thus, the interpretivist position lies in studying the facts of society on the basis of the meaning of the subject under study. Hammersley (2013) claims that human society develops in the interpretation and understanding of individuality and commonality. This difference is centered on “the internal logic of social life and the external data reasons of scientists” (p. 78). Therefore, the interpretivist position emphasizes the recognition and exploration of these existing subjective meanings, while reconstructing and theorizing them (Creswell, 2007).

Nevertheless, the critiques of the interpretivist paradigm position have also been widely discussed in recent years. Firstly, interpretivism cannot be considered to make a substantial contribution to social analysis. Hay (2002) asserts that because interpretivism’s ontology can view the world from multiple perspectives, and because its norms require that these perspectives be viewed equally, interpretivism inevitably casts doubt on all epistemologies. This degree of relativism can undermine the ethical responsibilities of scientists. To this extent, interpretivism is a form of ‘nihilism’ that eliminates the possibility of knowledge (Clarke, 2009). Secondly, the interpretivist position aims to gain a deeper understanding of the phenomenon in a complex context rather than generalizing it to other domains, which can leave gaps in the validity of the verification results (Cohen et al., 2011). Equally important, Tuli (2010) claims that since the ontology of interpretivism tends to be subjective, it is often contradictory in explaining social phenomena. Meanwhile, the research results will inevitably receive the influence of the researcher’s personal values and interpretations, which often causes bias. Moreover, Hay (2002) also criticizes that because the interpretivist paradigm aims at understanding current social phenomena rather than focusing on the rights of individuals and society, it fails to

address the impact of ideology and politics on society, such as the phenomenon of discrimination in education.

### **Assessing confidence in the reliability of the interpretivist paradigm**

Based on the critique of positivism in the social sciences area, interpretivism emphasizes qualitative analysis. Although there are many critiques of the reliability of qualitative research, the framework proposed by Lincoln and Guba (2006) is still effective in assessing the validity of the data and increasing researchers’ confidence in the data.

The credibility of qualitative research is demonstrated by whether the findings are consistent with reality. Lincoln and Guba (2006) propose the following to achieve. The first is to have a randomly selected sample. In pedagogical research, this represents a larger sample population, and this method is effective in ensuring an equal distribution of the sample and reducing the error introduced by the study population. Meanwhile, researchers need to get to know the study participants prior to initial data collection. Lincoln and Guba (2006) suggest conducting a lengthy preliminary survey with participating students or institutions prior to conducting pedagogy-related interviews. This approach can be effective in establishing the trust between the participants and the researcher. However, Maxwell (2012) warns that such prolonged contact may influence the researcher’s subjective judgment as well as create suspicion in the participants. In the process of collecting data, researchers should ensure that the study is applicable to the context of qualitative research. In the educational case, Cohen et al. (2011) state that the educational researcher should give participants an introduction to the relevant concepts and guide them to add examples to their perspectives. Equally important, ensuring the honesty of the research is also a must. Hammersley (2013) adds that the researchers should point out in advance the most appropriate ways to answer the research questions and maintain an equal relationship with the participants, which requires both parties to the study to remain honest. In addition, Shenton (2004) points out that the researchers should encourage the student participant to share his views and emphasize his independent position. According to Bryman (2008), the data collection process in the educational field should be long-term. For example, the ethnography approach is used to conduct a four-month fieldwork at a university to observe the effectiveness of the pedagogy. After data collection is completed, Riyami (2015) claims that the researchers also conduct member testing, that is, by going back to the participant interviews and questioning the

participants to check the authenticity of the interview text.

In terms of transferability, although the situational-specific nature of qualitative research dictates that it cannot generalize conventional concepts, there are contexts in which one can assess whether the research findings are similar to previous ones (Cho & Trent, 2006). For this reason, transferability requires the researcher to provide details of the setting and events that occurred, and the detailed descriptions allow the readers to evaluate whether the research can be applied elsewhere, such as whether a particular pedagogy can be applied to other contexts. Since the concepts involved in pedagogy are dynamic rather than static, the researcher needs to clarify the research process in order to identify the models involved so that dependability can be achieved, Brock-Utne (1996) further recommends that external review could be used to ensure the dependability of the study. As for the confirmability, Stromquist (2000) proposes that the researcher needs to provide a clear and comprehensive description of the research process so that the reader can assess the confirmability of the study, which is also described as a vetting process.

### Concluding Remarks

The positivism and interpretivism discussed in this paper have been proven to have many differences. To reach this conclusion, this paper begins by summarizing that the ontological position discusses the nature of reality, while the epistemological position discusses the development of truth. The paper goes on to discuss the positivism which focuses on statistical results and generalizations of universals, while interpretivism emphasizes the subjective meaning of the study subject. Ultimately, the reliability of qualitative research can be measured by credibility, transferability, dependability, and confirmability. The debate about positivism versus interpretivism will always exist, and researchers should analyze specific issues and choose the appropriate research method.

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