Paradigms of Inquiry in the Qualitative Research

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Abstract

The paradigms of inquiry can be distinguished through their ontology, epistemology, and methodology. These paradigms of inquiry ensure different interpretations on theory. Positivism and post-positivism see theory as an indication or statement of relationships between abstract ideas with empirical observations that identify hypotheses via reliable tests. Alternatively, in order to emphasize the connection between interpretation and the phenomenon under investigation, critical theory, constructivist and participatory paradigms, use interpretive perspectives of theory. Paradigms of inquiry, methodology and method, are not only related and affect each other in the research process, but also develop the rigour of research thorough reliability, validity, generalization in positivism and trustworthiness, validity, and reflexivity in phenomenology. Reaching knowledge through different structural processes provides researchers access to the social world and thus reaches specific conclusions that can be passed on to others for further understanding.

Keywords: Paradigms of Inquiry; qualitative research, rigour, methodology

Introduction

The social world is changing constantly and researchers use paradigms to define social phenomenon. This research aims to present role of paradigm of inquiry in social research. Kuhn (1970) defines a *paradigm* as a mean of sharing between members of a scientific community. As the paradigm manages to solve the problem it defines, science marches forward and makes tremendous progress. Paradigms of inquiry are the philosophical stance of the researcher that show how his inquiry is designed in the research process. Lincoln and Guba (2000) categorize types of paradigm of inquiry as: Positivism, Post-Positivism, Critical Theory, Constructivist, and Participatory approaches.

Comtè (1865) presented positivism in the middle of the 19th Century. His philosophical stance was affected by Empiricism and Naturalism. He implemented the rules of natural science in the context of social science. For positivists, reality exists and can be driven by immutable laws and

mechanisms. Reality can be wholly understood and discovered. Also, the ontological perspective of Positivism is referred to as "Naïve Realism". Positivism reveals an epistemological dualistic and objective approach. The investigator and investigated object are totally independent from each other. Investigator abstains from affecting the investigation or being affected by it (Guba and Lincoln, 1994).

Popper (2002) claimed that due to immutable laws, theory cannot march ahead and develop itself. In order to provide developments in theory, he offered falsifying a priori suppositions. Falsification has rules which determine under which circumstances a system is to be regarded as falsified. A theory can only be falsified when basic statements contradict it (Guba and Lincoln, 1994). Here, Popper (2002:4) refers to the example of the white swans:

> "…… we are justified in inferring universal statements from singular ones, no matter how numerous; for any conclusion drawn in this way may always turn out to be false: no matter how many instances of white swans we may have observed, this does not justify the conclusion that all swans are white. Because one black swan can falsify that conclusion."

Post-Positivism evaluates reality from the critical perspective. It is referred to as "critical realism". Reality exists in post-Positivism, but due to insufficient human intellectual mechanism and the fundamentally intractable nature of phenomena, humans cannot totally grasp bona fide reality and instead only understand it imperfectly and probabilistically (Guba and Lincoln, 1994).

Marx (1818-1883), Weber (1864-1920), Horkheimer (1895-1973), Marcuse (1898-1979), Fromm (1900-1980), and Adorno (1901-1969) are considered as the primary architects of Critical Theory. These philosophers are also acknowledged as the first generation of Critical Theorists. However, they did not reach a consensus about social investigation and criticism (Rush, 2004). Capitalism has had a huge effect on development of critical theory. For instance, Marxism emerged from critiques of Capitalism (Kincheloe and Tobin, 2009), and Marx utilized both a materialist conception of history[8] and a critique of Capitalism in his dialectic understanding[9] (Ng, 2015). In addition, Weber (1930) brought religious and social critiques to capitalism.

[8] Materialist conception of history investigates the main sources of major social developments and changes in the society through utilizing social conscious mediation of natural and social life's reproduction (Ng, 2015). According to this approach, "human evolution onwards from one determinate historical form and productive mode to another" (Horn, 2013: 496).

[9] Marx (1967: 14) differentiated his dialectic understanding from Hegel by following remarks:

Horkheimer (1972) inferred that paradigms of Positivism and post-Positivism cannot bring an in-depth understanding to social research. To understand the dynamics of social phenomena, a researcher should put on lenses of critical theory. Horkheimer was influenced by Marx's social stratification theory[10] and did not see critical theory as only a research approach, but believed that it could also provide a helping hand in the dissolution of social inequalities found in society. Marcuse (1964) was influenced by Marx's alienation concept and saw the capitalist system as the main cause of a uniform society. He also criticized classical research approaches that utilize knowledge to find universally accepted truths. Per his viewpoint, positivist research approaches also serve standardization of societies, hence, social research should focus on understanding reasons for change in society over periods of time. Adorno (1976) also highlighted the role of history in shaping ontological understandings. According to his research, in order to understand the current cultural and political aspects of society, historical changes should be taken into consideration as well. However, the interpretation of historical changes is not only limited to past and present situations, but also relates to further developments in a timeline.

After the First World War, as a reaction to the rise of totalitarian ideologies in many parts of the world, Fromm (1941) investigated the nature of authority concept. He posited that due to the unknown nature of freedom and independence, individuals have a tendency towards fear and anxiety, and in order to control these feelings and not make decisions on their own, they prefer to follow an authoritarian leader who would make decisions on their behalf. As one of the first critical theorists, Fromm examined traditional roles in society vis-à-vis gender and family. His critical understanding of gender roles in society helped link feminist theory with critical theory. To sum up,

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"My dialectic method is not only different from the Hegelian, but is its direct opposite. To Hegel, the life process of the human brain, i.e., the process of thinking, which, under the name of "the Idea," he even transforms into an independent subject, is the demiurgeous of the real world, and the real world is only the external, phenomenal form of "the Idea." With me, on the contrary, the ideal is nothing else than the material world reflected by the human mind, and translated into forms of thought". Afterwards, he defined dialectics materialism as follows: "In its rational form it is a scandal and abomination to bourgeois Dom and its doctrinaire professors, because it includes in its comprehension and affirmative recognition of the existing state of things, at the same time also, the recognition of the negation of that state, of its inevitable breaking up; because it regards every historically developed social form as in fluid movement, and therefore takes into account its transient nature not less than its momentary existence; because it lets nothing impose upon it, and is in its essence critical and revolutionary." Marx's dialectic understanding is based on economic struggle between different classes of society. The clash of opposites such as thesis (industrial entrepreneurs) and anti-thesis (proletariat) leads synthesis as communism.

[10] Marx's class form of social stratification is based on inequality in economic welfare of members of a capitalist society.

Horkheimer, Marcuse, Adorno and Fromm evaluate changes in capitalism from perspectives of power and domination. Moreover, one of the most important contributions of Frankfurt School Critical Theorists, to the literature, is the introduction of emancipation to the research process through providing awareness of the material conditions of our own knowledge (Anderson, 2000). In order to determine what our knowledge entails, critical theory reviews its structure and dynamics within society (Nielsen, 1992).

The second generation of critical theorists cultivated around the axis of Habermas' (1974) thoughts. He reorganized Frankfurt School's theoretical perspective from a fundamental distinction between strategic and communicative rationality (Pensky, 1999). He discussed science's dependability on ideological assumptions and interests and offered an ideal of communication through rational subjects completely independent from domination and error-inducing interests (Honderich, 2005). In addition, he identified three functions which provide mediation between theory and practice: firstly, the formation and extension of critical theorems which aim at true statements; secondly, the organization of the enlightenment process which aims at authentic insights; and finally, the selection of appropriate strategies for developing prudent decisions (Habermas, 1974).

The third generation critical theorists challenge the approach of the Frankfurt School and support Habermas' critical re-examination of first generation's understanding of critical theory (Pensky, 1999). As the most prominent representative of third generation, Honneth (2004; 2014) emphasizes the importance of conceptual reformulation, the mediation of the present state of our knowledge, and the positive impact of practicing shared-values in group dynamics. Critical theory's ontology is known as "Historical Realism", because reality can be understood through historical analysis. Reality is shaped by social, political, cultural, economic, ethnic, and gender factors, in addition, values are crystallized over time (Guba and Lincoln, 1994; Heron and Reason, 1997). Critical theory has a transactional and subjectivist epistemology. The researcher and research object are linked and values of the former influences the inquiry. Therefore, the findings of the inquiry are value-mediated. For critical theory, subjective humans develop theory in a historical and cultural context. Critical theory uses dialogic and dialectical methodology through developing dialectical dialogue between the researcher and research object. Dialectical dialogue should transform misunderstandings and ignorance into more informed consciousness (Guba and Lincoln, 1994). Here, structures may be changed and actions are needed to effect change.

Constructivism seeks to understand how humans interpret or construct something in social, linguistic and historical contexts (Schwandt, 2001). Similar to Critical Theory, the interpretation of theory in constructivism is shaped by researchers' experiences, views and background. Constructivism

has relativist realism; realities are constructed through shared construction of social and cultural factors (Guba and Lincoln, 1989). Schwandt (2001) classified Constructivism as, strong and weak. The main difference between these two types is rooted in their epistemological and ontological stances. The epistemology of strong Constructivism is very similar to that of critical theory: such as being transactional and subjectivist while creating knowledge through interaction of researcher and respondents; but different from Critical Theory, strong Constructivism creates and develops findings in the investigation process. Results are reached through consensus and individual constructions apropos those of the investigator. Moreover, reality is shaped by local construction in relation to strong constructivism. On the other hand, weak Constructivism highlights ideological and political values (Longino, 1993; House, 1996), and its epistemology and ontology denote Critical Theory.

Heron and Reason (1997) added participatory paradigm to Guba and Lincoln's categorization of paradigms of inquiry. Mind and primordial reality (cosmos) co-create the world together and reality is the result of interaction of cosmos and mind. Participatory paradigm uses subjective and objective reality: *"Cosmos is known as a subjectively articulated world; whose objectivity is relative to how it is shaped by the knower. But, this is not all, its objectivity is also relative to how it is inter-subjectively shaped"* (Ibid: 279). The epistemology of participatory requires critical subjectivity which is formed with experimental, presentational, propositional and practical knowing. Practical and theoretical knowledge co-create findings in the becoming context.

Types of Main Qualitative Methodologies

Crotty (1998: 3) defines methodology as "the strategy or plan of action which lies behind the choice and use of particular methods". Different ontological and epistemological assumptions have different views of knowledge and reality which reflect in their choice of methodology (Scotland, 2012). To clarify the relationship between methodology, ontology, and epistemology, the link between theory, reality, knowledge and truth should be clarified. Positivist perspective views reality as totally independent of humanity, but on the other hand, phenomenological reality considers them to be intrinsically linked. Truth ensures a better understanding of reality. Truths, like theories, cannot remain constant forever. When truth and/or theories change, accordingly, the nature of reality changes with them. Knowledge requires interpretations of facts derived from data. Then again, theory analyses understandings extrapolated from data. Theory can be expressed through immutable laws at one extreme, and social or construction at the other, reflecting reality, truth or knowledge (Howell, 2013). Theory is akin to lenses which help one see truth, knowledge, and reality. The reflection and relation

of truth, knowledge, reality, and theory, can change according to the type of methodology considered. Methodology, with ontological and epistemological assumptions, form basic belief systems of paradigms (Guba and Lincoln, 1994). There are different types of research methodology that reflect the assumptions of research paradigms in a study, such as, Grounded Theory, Hermeneutics, Action Research, and Ethnography.

Grounded Theory

Glaser and Strauss (1967) developed grounded theory while they were investigating the subject of dying and death in hospitals. They abandoned employing deducting testable hypotheses from existing theories and began to discover theory from research grounded in qualitative data (Charmaz, 2014). Furthermore, they utilized grounded theory to understand and explain social and social-psychological issues but nowadays, thanks to its flexible approach, grounded theory is used in different disciplines and research areas.

Grounded theory utilizes a systematic, inductive and comparative approach (Bryant and Charmaz, 2007) to generate or discover a theory from data which has been gained from participants' experiences thorough coding and categorizing (Creswell, 2013). Researcher's own creativity gains importance while determining categories in grounded theory. Here, categories should be developed inductively per the data. Yet the researcher should not be affected by his/her prejudices or become too reflexive as to stifle creativity, hindering the development of substantive theory (McGhee et al., 2007).

Hermeneutics

Hermeneutics is derived from the Greek word "hermeneuin" (ἑρμηνευτική) which means to interpret. The origin of word is inspired from Greek mythological character Hermes who was tasked with delivering messages of Greek Gods to the people (Gadamer, 2006). The term was first used in its contemporary context by Schleiermacher and Dilthey. Before Schleiermacher, hermeneutics was used due to a lack of understanding of the text but Schleiermacher applied it as "the natural priority of misunderstanding". He propositioned that "understanding arises naturally". The more rigorous practice proceeds on the assumption that misunderstanding arises naturally and the understanding must be intended and sought at each point (Gadamer, 2008: xiii). Like Schleiermacher, Diltey emphasized the effect of researcher's subjective intention on the meaning of text or action. Moreover, he removed the uncertainty of hermeneutics through utilizing the understanding of texts to the law of understanding another person who expresses himself therein (Ricoeur, 1981).

Hermeneutics is about interpretation and focuses on historical and social contexts that surround actions when interpreting a text. The

interpretation of understanding has been closely linked to empathy (Ibid). It causes empathy as regards those involved in the research. Thanks to imagination, to better grasp an act's meaning, the reader is forced to focus on the researcher's perspective. Therefore, the interpreter tries to show broader and different kinds of information. This provides a better understanding of the research to researcher and enhances his/her interpretation capacity.

Action Research

In 1939, Kurt Lewin as one of the pioneers of action research combined this research with the idea of doing experiments. He used the results of experiments gained in the workplace and took them well beyond their socio-technical design (Bradbury et al., 2013) to develop a theory (Gustavsen, 2001). The Tavistock Institute, with the aid of Kurt Lewin, has made important contributions to the development of action research through utilizing this methodology in their various researches as regards increasing productivity in the British coal-mining industry (Gustavsen, 2008). Nowadays, action research is mostly used for enhancing conditions and practice in administrative, leadership, social and community settings environments (Craig, 2009).

The inquiry of action research requires identifying research problems, gathering and analysing data and designing a plan of action in the practicing environment. To reach a conclusion for improving practice, additional data are gathered and analysed. Action research seeks to provide the participation of practitioners (involvement) and improvement of participants' understanding (Carr and Kemmis, 1986). Action research has a direct link with participatory paradigm of inquiry. It focuses on conducting research with interaction of researchers and participants. Different from other types action research, participatory action research gives more responsibility to participants such as deciding what problems to tackle, taking responsibility of research process and implementing action (Park, 2001).

Ethnography

Ethnography is derived from the terms ethnos and graphic. Ethnos is a Greek word meaning ethnic group and graphic means explaining or describing something clearly and simply (Glesne, 2011). Ethnography scrutinizes culture-sharing groups and tries to define their values, beliefs, behaviours, and understandings (Harris, 1968). Since modern culture concept emerged in the beginning of the 1800s, cultural research has tended to understand and explain human behaviour in a clearly more scientific manner (Fox, 1985). In the social science literature, ethnography initially begun to be utilized as a methodology by anthropologists in the last quarter of the 19th Century (Toren, 1996). Anthropological ethnography became one of the fundamental figures of

Western sociology in the beginning of the twentieth century and it mostly focused on community study movement[11] (Hammersley and Atkinson, 2007). In the late 1930s, William Foot Whyte conducted one of the classic examples of ethnography research, entitled, "Street Corner Society: The Social Structure of an Italian Slum". In it, he investigated a street corner society by living in that area and meeting the local people (Have, 2004). After the 1930s, Chicago School of Ethnography took on a pioneering role in the advancement of ethnography. Accordingly, it developed a realistic understanding of urban life through conducting local studies and analysing human behaviour. Chicago School researchers generally used many mixed methods by combining quantitative (statistical) data with qualitative techniques, such as, remote interviews, face-to-face interviews, and life histories (Deegan, 2001).

According to Hammersley and Atkinson (2007), in the twenty-first century, ethnography was influenced by various theoretical approaches, such as, anthropological and sociological functionalism, philosophical pragmatism and symbolic interactionism, Marxism, phenomenology, hermeneutics, structuralism, feminism, constructionism, post-structuralism, and postmodernism. Nowadays, ethnography is differentiated per different research perspectives. Ethnographers mostly prefer to use participant observation as a method (Davies, 2008) in their research, but it is very common to see other methods, such as, interviews, focus groups, group discussions, and surveys in ethnographic examinations. Whichever method is being utilized, it should not be forgotten that ethnography involves direct and sustained contact, watching what happens, listening to what is being said and focusing on the effects of culture as regards the inquiry.

Main Qualitative Research Methods

Interviews

Josselson (2013:1) defines interview as "a shared product of what the interviewer and interviewee talk about and how they talk together". Knowledge is produced through conversation advanced by both interviewer and interviewee (Kvale, 1996). There are three main types of interviews in the research process: Structured, semi-structured, and unstructured. Structured interview utilizes predetermined questions which are always asked in the same sequence. A standardized protocol which aims to reduce the subjectivity of interviewer is prepared and is sent to interviewee in advance. Semi-structured interviews utilize fixed questions, but the interviewer can pursue different queries depending on the flow of the interview. Moreover, a question may be put earlier than planned or the interviewee may answer a query before it is

[11] Community study movement involved studies of villages and towns in the United States and Western Europe, often concerned with the impact of urbanization and industrialization (Hammersley and Atkinson, 2007: 1).

asked. Semi-structured interviews, while providing flexibility to the inquiry, follow a structure. Therefore, it is a very popular method in phenomenological studies. Unstructured interview uses neither predetermined questions nor an interview protocol. Mostly, the interviewer has a list of topics and interviewee responds regarding a given subject matter.

Focus Group

Focus group study emerged in behavioural science after the Second World War as a data collection method (Stewart et al., 2009). It aims to get emic perspective of selected group members in a safe environment (Merton et.al., 1956). There exists an interaction discussion among members through sharing their opinions and perceptions. Explicit use of group interaction makes focus group method different from other group methods such as, nominal group technique[12] and Delphi technique[13]. There are many different opinions among academics regarding the ideal size a focus group should have, as there is no consensus in this regard. In general, 3-12 individuals are the accepted norm for conducting a focus group. Here though, the experience and ability of the moderator is a rather important factor in determining the ideal size of the group. Moreover, the moderator has a key role to play in the overall success of the focus group method. "Personal characteristics, educational and training background, previous experiences as a moderator, situational characteristics, like sensitivity of the topic, the scope and depth of coverage required, leading capacity of physical environment and time limits" (Stewart et al., 2007: 69) are the foremost elements for being an effective moderator. In order to make participants feel comfortable to express their opinions freely and provide divergent views, the researcher can use different stimulus materials and activities, such as, vignettes, cartoons, videos, games, newspaper clippings, exercises, and flip charts in the focus group method. More to the point, these kinds of stimuli create a better atmosphere for achieving a more comprehensive research study (Krueger, 1994; 1998).

Observation

Observation generates data from human experience. Positivist and Phenomenological paradigms can use the observation method. Positivist researcher keeps objective distance from natural or physical settings where observation takes place. Phenomenological researchers provide interaction

[12] "Each member of the group is interviewed individually, and summaries of the responses and ideas of the other group members are provided to the other groups", in the nominal group technique (Stewart et al. 2007: 153).

[13] The Delphi technique develops a consensus of opinions concerning a specific topic through a series of questionnaires to collect data from a panel of selected subjects (Hsu and Sandford, 2007: 1-2).

with respondents in their natural settings. There are two main types of observation, as non-participatory and participatory. Non-participatory observation fits best with structured observation[14]. Here, the observer is part and parcel of the situation under observation but remains outside of group activities as regards non-participant observation. On the other hand, participatory observation method is mostly appropriate for constructivist and participatory paradigms. Here, the observer takes part in daily events during the observation regarding participatory observation. Participatory observation is utilized to generate practical and theoretical truths about social life that are embedded in the realities of daily existence (Jorgensen, 1989).

In addition to these two fundamental categories of observation, there are other types incorporated within, which can be classified as, *structured*, *unstructured*, *overt* and *covert*. While structured observation systematically focuses on an individual's behaviour as regards a plan or a schedule, contrariwise, in order to create a narrative form of the observed, unstructured observations note as much as possible without utilizing any schedules (Bryman, 2004). Furthermore, observers have to declare their identity, aims, and objects of observation in an overt manner. Thus, it can help uncover ethical aspects expected from a scientific research. Inversely, covert observation aims to reach real natural settings by hiding the identity of the researcher, or the aims of the investigation. Even though this method solves the problems associated with the *Hawthorne Effect,* whereby observed subjects behave differently than they normally would, it does manage to reach real and natural paradigms of inquiry while touching upon ethical concerns. Therefore, covert observation is not preferred by most academics.

Rigour in Relation to the Overall Research Process Regarding Paradigm of Inquiry, Methodology and Methods

The Oxford dictionary defines rigour as, *"The quality of being extremely thorough and careful"*. The origin of rigour dates back to the late 14th Century as an old French word, rigour, derived from the Latin word, rigor, meaning 'stiffness'. Today, rigour demonstrates integrity and competence in a research and has a very important role in establishing a piece of academic research; without rigour, research is little different than fictional journalism which makes no contribution to knowledge (Morse et al., 2002). However, Tobin and Begley (2004) criticize Morse et al.'s idea and confer that

[14] Structured observation, or in other words, systematic observation, follows explicitly formulated rules that inform observers of what they investigate and how they should record observations. Participants are observed for a predetermined time using the same rules (Bryman, 2004). On the contrary, unstructured observation does not follow any specific rule and tries to reach as much as possible.

the concept of rigour should not be rejected by qualitative researchers but to realize research's aims, it can be used within its epistemology.

Lincoln (1995) evaluates rigour from the perspectives of ethics. Per him, standards of quality and those of ethics are the same in interpretive social science. Rigour can be seen in all types of research approaches. However, Juroš (2011) argues that the role of ethics and rigour in a qualitative research are more important than in that of a quantitative one as there are more interactions between the researcher and respondents. Paradigms of inquiry, methodology and method are not only related and affect each other in the research process, but also develop the rigour of research through reliability, validity, generalization in positivism and trustworthiness, and validity and reflexivity in phenomenology. While developing rigour however, the researcher faces some difficulties in developing procedure. Howell (2013: 191-192) identifies this difficulty which has emerged in positivist and phenomenological approaches of research, in this way:

> "One major difficulty is that of identifying truth (or reality) and in this context one may question all methodological approaches and methods. However, notions regarding levels of reliability, validity and generalization, as with trustworthiness, fairness and credibility provide a yardstick by which levels of rigour and measurement in research projects can be gauged and assessed."

The relation of rigour to the overall research process regarding paradigm of inquiry, methodology and methods, as demonstrated in Figure 1 below.

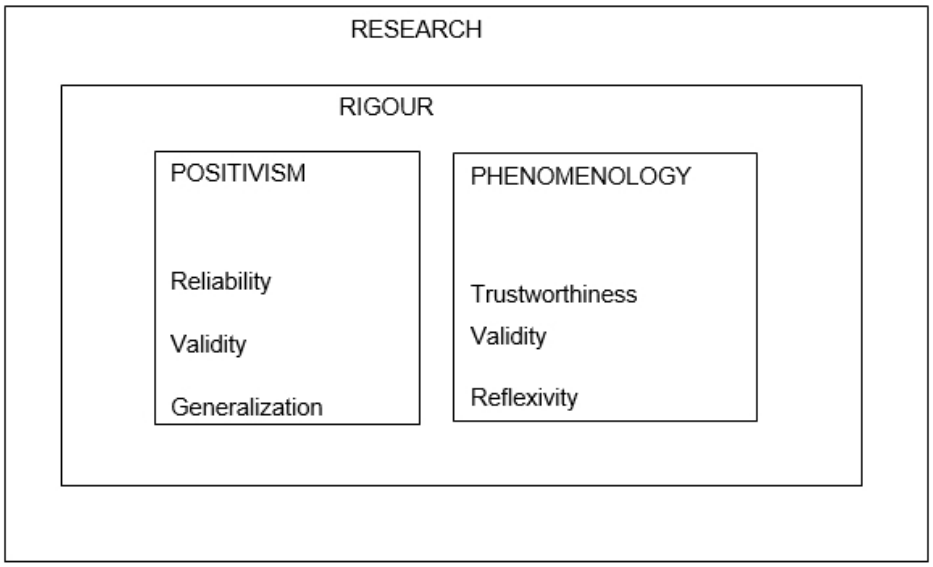

Figure 1: Research, Rigour, and Paradigm of Inquiry (Howell, 2013)

Rigour in Relation to Reliability, Validity, Generalization and Trustworthiness

Four main criteria can be used to judge the rigour of a conventional research: a. Reliability (replicability), b. Generalisation (external validity), and, c. Validity and Objectivity (Lincoln and Guba, 1985).

Reliability

Reliability can be used in positivist and post-positivist inquiries, rather than phenomenologist examinations, in order to show the reliability of achieving similar results while repeating the same research. In order to provide reliability of measures, mostly, four main ways have been used in the literature: a. conceptualizing constructs clearly, b. utilizing a certain level of measurement, c. using multiple indicators, and, d. running pilot-tests (Neuman, 2011).

Kirk and Miller (1986) refer to three types of reliability in qualitative research: a. quixotic reliability, b. diachronic reliability, and, c. synchronic reliability. Quixotic reliability is based on observing consistency. Diachronic reliability refers to the stability of an observation which is taken at different times. Synchronic reliability looks into the similarity of observation in the same length of time. On the other hand, in phenomenology, the results are subjective; the researcher and the research issues are linked with each other. That is why, in phenomenological research there is no need to repeat the results as the results change according to the researcher's perspective. On the other hand, in positivism and post-positivism, objectivity is pursued and there is a separation between the researcher and research issue. Hence, the importance of reliability gains more importance in positivist and post-positivist research.

Generalization

Generalization is mostly utilized in quantitative research and shows how the results can be generalized for bigger samples. Even though it is very rare, there are some generalization implementations in a qualitative research as well. Regarding this, Larsson (2009) offers three methods: a. Maximize variation, b. Provide context similarity, and, c. Recognize patterns. Firstly, instead of using random samplings, variations of qualitatively different samplings should be included in the research process in order for different opinions to develop better understandings of the qualitative research. Secondly, a researcher should provide sufficient descriptive data to make judgements possible regarding any similarity between the researched context and other contexts. Finally, qualitative researchers sometimes produce new patterns that can be identified in the empirical world. Thus, pattern which have not been seen before is presented to the reader; this can be referred to as a

variant of generalization. The communicated pattern is recognized in new cases.

Validity

Validity, different from reliability, is a more theoretical concept. Howell (2013) divides its definition of validation into two parts. First from a positivist perspective, validity defines which measurement is accurate and what is supposed to be measured is actually being measured; how far one can see that a test measures the phenomenon we expect it to. On the other hand, from a phenomenological perspective, validity involves accessing knowledge and meaning for realisation. Validity interrogates the authenticity of findings, the research's trustworthiness, and how it is being acted upon.

There are four types of validity: First, measurement validity investigates if a discovered result from statistical data really indicates what is measured in a quantitative research. Second, internal validity examines if a conclusion contains causal relationship of variables (Bryman and Bell, 2011). Third, external validity generalizes results from a specific to a broad range. This type of validity may also be called generalization and was explained in the previous part. Finally, experiential validity interrogates how far the findings of an experiment can be identified in real life situations. In a qualitative research, most focus on getting an inside view to provide a detailed explanation through interpretation. In order to provide validity in understanding of a qualitative research, researchers have developed various approaches, such as: conveying an insider's opinion to others; using internal and external criticisms to determine whether evidence is real or just believed to be; becoming transparent in the research process; and, creating a tight fit between understandings, opinions, and claims, regarding the social world and what is actually occurring within it.

Objectivity

The principle of objectivity is utilized in positivist and post-positivist research. It is expected that researchers do not incorporate their own opinions, values and beliefs, into the research process. In order to fulfil the requirements of this principle, different quantitative research methods are used and are crosschecked for their findings. However, it is almost impossible to bring some objectivity criteria – via utilizing these kinds of methods – to any phenomenological study. This is because others' views may become partially injected into the research, and subjectivity almost always inserted into the inquiry by the researcher's values, awareness, and mere presence. Hence, especially from an epistemological point of view, this principle cannot be applied into any phenomenological study.

Trustworthiness

Trustworthiness demonstrates the quality of a research's findings in a qualitative research by looking into five characteristic inquiries: a. Truth value, b. Applicability, c. Consistency, and, d. Neutrality, e. Authenticity. Transferability checks the applicability of findings to similar contexts by utilizng "Thick description". Thick description combines different methods, such as, interviews, observations, and focus groups. Credibility focuses on construction of participants' realities. Seven major techniques are used in a qualitative inquiry to provide credibility: a. Using prolonged engagement; b. Persistent observation; c. Triangulation; d. Peer debriefing; e. Negative case analysis); f. Progressive subjectivity); and, g. Member checks (Guba and Lincoln, 1989). Dependability provides an inquiry's consistency among main research components. Confirmability examines if the inquiry is influenced by the researcher's biases. Authenticity focuses on developing a fair, honest and balanced account of social life from the perspective of someone who is personally involved with the issues at hand (Neuman, 2011).

Reflexivity

The definition of reflexivity goes back to early 1930s. George Herbert Mead offered one of the best known and popular definitions of reflexivity in 1934:

> "It is by means of reflexiveness—the turning-back of the experience of the individual upon himself—that the whole social process is thus brought into the experiences of the individuals involved in it; it is by such means, which enable the individual to take the attitude of the other toward himself, that the individual is consciously to adjust himself to that process, and to modify the resultant of that process in any given social act in terms of his adjustment to it. Reflexiveness, then, is the essential condition, within the social process, for the development of mind" (Strauss, 1956: 211).

Alvesson and Sköldberg (2009) define two fundamental characteristics in reflective research, as careful interpretation and reflection. Firstly, all references to empirical data stems from interpretation. Secondly, reflection considers interpretation through researcher's character, whole relevant research society, language, and culture. Reflection can be defined as "interpretation of interpretation" (Ibid: 9). Reflexivity provides a mutual and continuing interaction between the self and the research topic. Self develops the research process but also it is developed through that same process. The researcher is a fundamental part of the research with giving meaning to data which is collected through methods. Collected data is just a pile of information

without the researcher's interpretations (Gilbert, 2008). Hence, self-reflection is sine qua non part of the research process.

Conclusion

Interpretation and making sense of what has been observed gains more importance in a qualitative research. Therefore, that qualitative research design provides a better guidance to the social science research process when dealing with cultural issues such as values, symbols, rituals and ideas. Qualitative research requires a broader and less restrictive concept of design than the more traditional perspectives. The components of research affect and are affected by each other (Maxwell, 2009).

The reflection of interactive relationship must also be seen in the researcher's reasoning. There must be a constant back and forth between inductive and deductive reasoning throughout the process. The *abductive approach*[15] combines both deductive and inductive methodologies. It provides more flexibility vis-à-vis developing new knowledge and especially better interaction among research components, such as, philosophical perspective, ontological and epistemological positions, paradigms of inquiry, literature reviews, theory, methodology, methods, and rigour. The model of qualitative research design is presented in Figure 2. This research design is used not only in qualitative researches, but also is used in other fields when a phenomenon is to be appreciated in depth.

[15] The term *abduction* was coined in the translation of the Aristotelian Apagoge by Julius Pacius in 1597. However, it was Peirce (1931) that for the first time introduced abduction as a type of logical reasoning, by combining a diverse inference pattern with the name of 'hypothesis' (Reichertz, 2004). According to Peirce (1955: 151): "*The first starting of a hypothesis and the entertaining of it, whether as a simple interrogation or with any degree of confidence, is an inferential step which I propose to call abduction…This will include a preference for any one hypothesis over others which would equally explain the facts, so long as this preference is not based upon any previous knowledge bearing upon the truth of the hypotheses, nor on any testing of any of the hypotheses, after having admitted them on probation.*"

Figure 2: The Model of Research Design

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