Philosophical Foundations of Research and the Selection of Research Methods

Based on Gallagher-Brett's Research:What Do Learners' Beliefs about Speaking Reveal about Their Awareness of Learning Strategies

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Abstract—Based on a research which talks about students' beliefs about speaking and discusses some underlying learning strategies, the paper analyses: firstly the identification of the foundations of the research from epistemological and ontological perspective, and consideration of the nature of theorising in it; second an alternative way----mixed methods research----in which the research question could have been answered methodologically and critically assess the combination with diary method; and finally the identification of ethical issues about doing questionnaire and researching with students and the suggested solutions

Keywords—philosophical foundations; epistemology; ontology; nature of theorising; mixed method; ethical issue

I. INTRODUCTION

This paper aims to show, in a specific context of a selected research, the understanding of how the philosophical foundation influences a researcher, what the relationship between methodology and methods is, and why and what ethical issues should be concerned.

The selected article "What Do Learners' Beliefs about Speaking Reveal about Their Awareness of Learning Strategies" [1] describes a pilot questionnaire research conducted with 28 German learners in a U.K. comprehensive school. The questionnaire includes four sections: initial background questions, tick-box statements, rating-scale statements, and open-ended statements, eliciting students' beliefs about speaking a foreign language, involving their attitudes, experiences, and learning strategies. The findings show that they are aware of some strategies and think those strategies can facilitate their speaking; meanwhile, some affective factors such as anxiety may inhibit their use of those strategies.

The paper will firstly identify the philosophical foundations which Guba and Lincoln [2-3] regard as "a basic set of beliefs or assumptions that guide our inquiries", and consider the theorising of this research. Then, it will provide a mixed methods way as an alternative and discuss the benefits that diary may bring to the research if the last section of the questionnaire can be replaced. Finally, it will discuss how the author deals with some ethical issues in the research.

II. PHILOSOPHICAL FOUNDATIONS OF THE RESEARCH AND NATURE OF THEORISING

A. The Epistemological and Ontological Foundations of the Research

1) The definition of ontology and epistemology:

McCulloch [4] thinks that ontology is ways of explaining the nature of reality; it is often described as schemes for classifying the world and is essential to understand that basic set of ordering ideas and categories. Epistemology, on the other hand, is ways of describing possible kinds if knowledge and it studies the forms that knowledge can take if it is to be useful or meaningful. From this perspective, people in different contexts may have different opinions about how a truth is generated and whether it is absolute truth or contingent truth. Ontology and epistemology are not exclusive of each other; as McCulloch [4] points out, the former is the distinct and necessary foundation of the latter.

As different people may hold different philosophical views, there are various philosophical systems. In this paper, I will follow the system put forward by McCulloch [4].

2) The importance of ontology and epistemology in research:

Undoubtedly, philosophy brings a lot of benefits to conducting research. Carr emphasizes that it has far-reaching influence to our understanding of social science [5]; Wise, Nordberg and Reitz even claims that it is inevitable in any kinds of sciences [6]; Hammersley highlights philosophical assumptions due to their guidance to produce good quality research by the implications for verification, explanation, knowledge of reality [7]. Newby adds that it provides a lens for the researchers to identify problems, and to interpret and understand the data [8].

3) The identification of underlying philosophy in the research:

There are mainly four philosophical positions shown in the selected research. First of all, the research's focus on students' beliefs and awareness, which are the mental constructions of the facts about their German learning, implies a nominalist position. For those students, there is no absolute truth and their beliefs and awareness may be temporary and shifting consensus [4].

The analysis of the numbers and open-ended statements in the questionnaire indicates the researcher's positivist and interpretivist positions. Questionnaire has the nature of being positivist and quantitative because the numbers mean something is measurable and objective. Although students' beliefs and awareness are mental constructions, the numbers of students who agree or disagree with each statements reveal the typical features of positivist position that is concrete reality, which is meaningful and true to make claims, and is straight-forwardly perceived and recordable [9]. The other philosophical foundation of this questionnaire is interpretivist. The author's analysis of the open-ended statements is subjective interpretation of students' words according to her experience and understanding. It conforms to what McCulloch [4] says knowledge is situated and contingent and what Pring defines interpretivist as people constitute social world by their intentions and meanings [10] .

The last underlying philosophy is critical theory which is particularly concerned to understand and facilitate social changes that leads to greater possibilities for individual and collective emancipation [4]. Holding the critical theory worldview, the author proposes some possible learning strategies to promote German learning, showing her efforts and wish to make some changes.

B. Nature of Theorising in the Research

Theory is "a set of interrelated constructs (concepts), definitions and propositions that presents a systematic view if phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena" [11-12]. Theory can naturally be epistemological, based on corresponding ontology. Paraphrasing the definition from the perspective of processing research, Ary, Jacobs, and Razavien thinks a scientific approach of developing a theory for the researcher is to "move inductively from their observation to hypothesis and the deductively from the hypothesis to the logical implications of the hypothesis" [13]. Gallagher-Brett, according to Creswell who specifies the process into five procedures, follows an inductive logic in her qualitative study[14]. She firstly gathers information from questionnaire, and asks open-ended questions, then analyzes data to form her theme. It is followed by looking for broad patterns, generalizations, or theories from the same theme. The last procedure is "generalizations or theories to past experiences and literature" [14].

However, there is a problem in the reasoning of the theory. It seems that the researcher draw her conclusions directly from the statements of their awareness and beliefs. Whether those strategies are helpful or not should be objective, as Wise et al. suggests, so the researcher may not demonstrate the usefulness of them purely through empirical discussion [6]. Also, it might

not be clear about the criteria of do well in the open-ended statements, so it may influence the judgment on how helpful the strategies are. On the other hand, Horwitz does better from this perspective. She gives well-supported judgment on the strategies before bringing them to be discussed with data [16].

III. AN ALTERNATIVE METHODOLOGY AND CORRESPONDING METHODS

A. Methodology and Methods Used in the Research

Methodology is the research of method, and it studies the philosophical assumptions underlying the research process; on the other hand, method is specifically used in the data collection process and is a technique for those philosophical assumptions. Gallagher-Brett's qualitative research uses an interpretive approach with flexible guidelines to develop the theory about learners' belief, effective factors, and learning strategies, which conforming to what Charmaz claim as constructive grounded theory [3][15], one of the two popular approaches of grounded theory.

Gallagher-Brett only uses questionnaire in the research. It is useful to collect the nominalist data in a quantitative way; however, as Charmaz explain that constructive grounded theory emphasizes on the views, values, beliefs, feelings, assumptions, and ideologies of individuals [3][15], so a more qualitative method is expected.

B. An Alternative Methodology and Method

According to the worldview stances discussed in the second part of the paper, mixed methods research might be an alternative approach. Questionnaire is always associated with quantitative method; although the open-ended statements are qualitative, the students seem just list the strategies without explaining in detail. As Gallagher-Brett herself admits a revised questionnaire should combine with more qualitative tools, including a leaner diary, the open-ended statements can be replaced by students' learning diary or reflective learning journals, so that students' beliefs and awareness about learning strategies will be better analyzed.

Besides getting more qualitative data, diary may cover three shortages of questionnaire. Firstly, the data collected by questionnaire may tend to be descriptive; the use of diary may help with deeper understanding of students' attitudes towards the strategies. Secondly, the information collected by questionnaire might be superficial [17]. For example, the author admits that there is ambiguity in the categorizing of "strategy", "effortand "behaviour". Thirdly, misunderstandings between the researcher and participants [18] may affect the interpretation of the data.

IV. ETHICAL ISSUES IN THE RESEARCH

A. Why We Concern Ethical Issues

Few researchers may avoid ethical considerations when doing research. Pring [10] sees ethics as "the philosophical enquiry into the basis of morals or moral judgement". Simons adds its importance by defining it as the "search for rules of conduct that enable us to operate defensibly in the political

contexts in which we have to conduct educational research" [19].

Undoubtedly, it is a significant matter that needs our concern throughout the process of conducting research. AAA (American Anthropological Association) advises researchers should achieve the generation and utilization of knowledge in an ethical manner for moral and practical reasons [20]. It forces us to think about the inquiry, the research project, as well as the respect for others [9]. All of ethical considerations provide us in the preparation of research the basic guidelines that help us make decisions for assumptions, facts and issues.

B. What Should the Author Concern in Her Research

Ethical issues can be seen as a kind of contract [21-22]. It requires researchers to "be open about the purpose(s), potential impacts, and source(s) of support for research projects with funders, colleagues, persons studied or providing information, and with relevant parties affected by the research" [20]. I will not provide a comprehensive ethical consideration checklist because as Pring states, "there is rarely clear-cut and context-free principles" [10]. Therefore, I will discuss the ethical issues of using questionnaire when researching with students.

There are two key issues for using questionnaire to participants: consent and confidentiality. Consent means the establishment of trust and honesty between researcher and participants. The researcher should permit their access to the data and findings of the research, and guarantee a safe environment, both physical and psychological, for being involved in the research. As for the consent in the research, Gallagher-Brett may follow Thomas' advice to document a consent form [9]. The form should clarify the title and purpose of the research, the identity of researcher, as well as what participants are required to do. It also needs to confirm that the data is for research purpose, participants' involvement is voluntary, and any implications for anonymity, the other consideration for using questionnaire. Anonymity means, as Bell [22] suggests, that if the author of this article promises that the participants will be kept anonymous, then they will not be identified in any circumstances. So, the author of this article cannot tell which answer comes from which student. We may see from the article that Gallagher-Brett does well in confidentiality.

Another ethical issue that the author should consider is about research with young people. First of all, she should notice the legal protection stated in related laws of U.K. for children, considering from both physical and psychological perspectives. If any participants cannot be call "adult" legally, then she needs to ask for the permission of their parents and the headmaster of the school. Besides, as Macpherson and Tyson [23] claim that the researcher should see the students as a part of the research and ask them whether they want to do the questionnaire.

In a word, we should bear in mind that we should protect the rights of the participants in our research. And, after finishing writing, the author would better send her findings and results to all the participants.

V. Conclusion

As the author says, this research is just a pilot study, which helps to try out the proposed procedures and helps researcher to decide whether the study is feasible and whether it is worthwhile to continue, there might be some flaws and limitations. It will be used in more comprehensive studies in the future with better-designed methods. This analysis of the research provides a chance to think about some considerations as a researcher: What are the philosophical foundations which shape the thinking and guide me to do the research? Whether the methodology and methods chosen are scientific and fit those philosophical assumptions? What ethical issues should a researcher consider throughout the whole research?

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