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The Philosophy of Research

Intro

In this paper, I will illustrate possible paradigms and methodology that might effectively be utilized for insider research in the voice pedagogy field. I will use the example of hypothetical study of adapting the pilates method for vocalists wishing to improve breath control and support. I will also discuss the ontology, epistemology, axiology and methodology of paradigms to be considered for and perhaps excluded from in this type of research. Related to these concepts, I will also discuss research methods and data sampling. I will also be examining the ethical responsibilities in such a study. This paper will conclude with a summary and reflection on how all these elements connect and might be carried out in an ethical way within a work-based research environment.

An Overview: Ontology Epistemology Axiology

A researcher's ontological, epistemological, and axiological stance informs their research. "Research is value-bound and is influenced by the researcher's values as expressed in the choice of the focus of the research" (Cohen, Manion and Morrison, 2018, p. 347). Ontology is described as the study of being (Sol and Heng, 2022). Ontology begs the question, does one or to multiple realities exist? Realism is an ontological stance, which believes in one reality. Relativism says there are multiple realities. Critical realism is indicates that reality is "captured by broad, critical examination (Moon and Blackman, 2014)." I uphold a relativist stance by honoring my students perceptions of

their experience as a voice practitioner is real and may contrast with the reality I observe as their coach.

Epistemology refers to the theory of knowledge and how it is learned. The Oxford English Dictionary defines epistemology as “the theory of knowledge and understanding, especially with regard to its methods, validity and scope, and the distinction between justified belief and opinion” (www.oed.com, n.d.). It is concerned with all aspects of the validity, scope, and methods of acquiring knowledge, such as, with what constitutes a knowledge claim; how knowledge can be produced or acquired; and how the extent of its applicability can be determined. (Moon and Blackman 2014)”

There are different types of knowledge. In epistemology, we are most often referring to knowledge of fact, otherwise known as propositional knowledge or knowledge of ability, known as prior knowledge (Sol and Heng, 2022). Axiology deals with ethics, aesthetics, and religion. In research it refers to what the researcher believes is valuable and ethical (Sol and Heng, 2022).

There are many epistemological stances one can take in research including but not limited to positivism, post-positivism, structuralism, constructivism, interpretivism, hermeneutics, phenomenology, symbolic interactionism, critical theory, emancipatory, advocacy, feminism, post-structuralism, post-modernism, and pragmatism. In this paper I will bring into discussion Positivism, Interpretivism, and Pragmatism.

Positivism upholds that there are absolute facts about reality. These facts must be obtained through empirical, scientific inquiry or the scientific method (Sol and Heng, 2022). The axiology of

positivists is that of neutrality. This makes sense as it is a very objective stance. Quantitative methodology, is an excellent route for positivistic research. Positivism is less successful in application to social studies due to the complexities of individual human beings (Flick, 2018, p.13). For this reason, I deduce that it is not the ideal approach for my research within voice pedagogy. What I plan to research is complex and not only quantitative but also qualitative, or mixed method.

Qualitative methodology involves analyzing “data in the form of natural language (i.e., words) and expressions of experiences (Levitt et al., 2018).” Interpretivism upholds the view that knowledge is affected by our personal interpretations and is appropriate for qualitative data (Flick 2018, p.3). “Interpretations of reality are culturally derived and historically situated (Moon and Blackman, 2014).” There is great importance on the interpretations of the researcher in these projects.

Pragmatist research utilizes all approaches necessary (Sol and Heng, 2022). This framework aligns with how I imagine approaching my topic. I anticipate using mixed methods to find the best, or most practical, strategies. For instance, I could utilize qualitative methods such as interviews and questionnaires as well as quantitative methods such as utilizing measurements of the vocalists’s durations of inhalation and exhalation. The latter could potentially analyze individual’s perceptions of their breath control as well as use scientific tests to get quantifiable data for examination.

Types of Research Methods

In order to select a research method, it may be helpful to ask the following questions proposed by Harish K. Thackur (2021):

- “(1) What is the study and why it is being undertaken?
- (2) What are the prime objectives of the study?
- (3) What is the significance of the study?
- (4) What kind of data is needed and what are the sources of the data?
- (5) What are the methods/means of the data collection?
- (6) What are the methods/tools of data analysis?
- (7) How the final report will be prepared and submitted?
- (8) Implications of the study and its policy repercussions and implementation.”

The answers to these questions may change over time but asking them at the start is beneficial as it will guide the researcher as they determine their research method(s). If I continue to explore my research project investigating pilates and it's effect on singers' breath capacity, here is how I might answer these questions. (1) This is a study examining the effects of pilates exercise on vocalists's breath support and control. (2) The objectives are to assess the singers' breath control, teach them some of the pilates method, and collect data to determine whether there has been any change. (3) If the pilates method is successful in improving the singers' breath control, the methods and techniques may be adapted and shared with other teachers and singers. (4) Quantifiable or quantitative data is needed in addition to qualitative data. The singers should report their subjective experience as part of the data collection, because perception is important to a singer's perceived

success. There may also be other benefits or risks in teaching the pilates method that should also be evaluated. Questions (5) and (6) will be addressed later in this paper. Questions (7) & (8) will be excluded for now as they do not have utmost pertinence to the objectives and goals of this module.

Methods or research design are not to be confused with methodology. “Methodology is regarded as the approach and the rationale for the research approach adopted,” while method “then refers to the tools for gathering data, analyzing data and the means by which findings are generated such as surveys, focus groups, observation, or document analysis” (Ling and Ling, 2017 p.2). These methodologies include qualitative, quantitative, and mixed method approaches as well as inductive, deductive, and abductive reasoning. Inductive approaches are data driven whereas deductive are theory driven, and abductive are a combination of the two (Saunders, Lewis and Thornhill, 2023, p. 51). My proposed project would at the very least begin as a theory driven project theorizing that the pilates method can positively improve a singer’s breath capacity, But this deductive approach may evolve into abductive as the data is collected and analyzed.

Research methods are vast and somewhat open ended as you can combine the many strategies across a given study. These methods can be qualitative, quantitative, inductive, deductive, and abductive. For example, textual analysis could be used for qualitative research understanding participants’ categories or for quantitative research by counting in terms of the researchers’ categories. Methods for gathering data include but are by no means limited to interviews, surveys, focus groups, document analysis, observation, and oral history/life stories. Some methods, are more specific such as grounded theory, which is defined as “the systematic discovery of theory from the

data of social research” (DePoy and Gitlin, 2016) and is inherently inductive and qualitative (Charmaz and Bryant, 2010). A voice instructor might turn to grounded theory if they started to notice many of their students experiencing less performance anxiety and wanted to know why that might be occurring. In my case, I have a clear theory I want to explore with my voice students. A better option for me might be a case study working with a student who needs help with their breath control and support and observing if and how the pilates method helps them. Other types of research include action research, ethnography, phenomenology, and hermeneutics though this is by no means an exhaustive review.

Sampling strategies for such methods are also vast, including both probability (sampling the entire population) and non-probability techniques. We will only be considering non-probability sampling including but not limited to snowball, quota, and self-selection. Snowball sampling is useful when finding subjects is challenging. In this type of sampling, researchers go “from one case to the next, asking interviewees for other people who might be relevant for the study, and the like” (Flick, 2018 p.52). In quota sampling, a researcher divides their population into specific categories each with a quota. This is often used for large projects where probability sampling is not available. Self-Selection sampling is a type of volunteer sampling and might be the most well-suited technique for my pilates study. In self-selection, a general invitation is offered and participants may consensually participate (Saunders, Lewis and Thornhill, 2023, p. 318).

These samples must be analyzed. Some possible strategies for analyzing data are coding, concept maps, and triangulation. Coding is a way to organize data based on categories. (Flick, 2018

p.126). Flick notes it may be helpful to create a visual concept map when analyzing data (Flick, 2018, p. 421). Triangulation is a way of checking qualitative data against quantitative data making it ideal for mixed methods research such as my proposed topic (Flick, 2018 p. 17). And so referring back to Thackur's questions, (5) my methods of data collection would be a combination of timed breathing exercises and interviews. (6) Data would be analyzed through triangulation observing both the quantitative data and the qualitative data.

Ethics of Insider Research

The ethics of any research endeavor are of the utmost importance. As voice instructors doing work base research, our research is considered insider research (Flick, 2018, p.384). One needs to consider the best interests and protection of the researcher, researched, and organization overseeing the project. At the 2nd World Conference on Research Integrity, 51 countries came to gather to create published the Singapore Statement (Wcrif.org, n.d.). The statement was published in 2010 in hopes of serving as "a global agreement on responsible research conduct" (Kleinert, 2010). The statement covers the principles and responsibilities of a researcher. The principles listed in the Singapore Statement are the following:

- "Honesty in all aspects of research

- Accountability in the conduct of research
- Professional courtesy and fairness in working with others
- Good stewardship of research on behalf of others"

The related responsibilities of a researcher are integrity, adherence to regulations, research methods, research records, research findings, authorship, publication acknowledgement, peer review, conflict of interest, public communication, reporting irresponsible research practices, responding to responsible research practices, research environments, and societal considerations (Kleinert, 2010). Some of these are more self-explanatory than others. A researcher should have integrity in their research, assign proper authorship, and acknowledge names of those who supported the research venture of course. They should also adhere to the regulations and policies applicable to their research and organization. This paper is the sort of work a researcher should do to investigate and determine the appropriate methods to be used for their research. The Singapore Statement points out that findings should be shared promptly. Researchers should also engage in peer review. If a researcher is giving peer review, it must be done promptly, rigorously, fairly, and respecting confidentiality. There will always be conflicts of interest and biases in research, and this must be disclosed in all proposals, publications, public communications, and review activities. Public communication should be done while maintaining awareness of one's scope of practice and expertise. Irresponsible research practices not only need to be reported to authorities, but also must be responded to appropriately. Those who report the misconduct must be protected. The environment for the research such encourage all these ethical responsibilities as well as encourage sustainability and opportunities for advancement. Finally, social benefits and risks must be considered throughout the entirety of the research process.

Applying these ethical principles and responsibilities to research is a case by case endeavor. In my hypothetical project researching pilates for breath control, my responsibilities would first and foremost be to myself as the researcher, my participants, the University of Wales Trinity Saint David (UWTSD), the Pilates Method Alliance, and any studios at which I conduct my research. Participants must be treated as human beings first and foremost or as Howe and Moses put it “as ends in themselves -with equal respect, dignity, and value - rather than as means.” The ethics form for UWTSD would need to be completed and approved. Usually a pilates studio will enforce liability waivers and have certain safety and cultural rules for the space. I would additionally provide a liability waiver for participants in case of injury or harm in the study. Informed consent would be of utmost importance and given prior to any of aforementioned on-boarding procedures. Participants would also need to be made aware they may revoke consent at anytime. I imagine this research project involving several stages where informed consent would be pursued again and again. This is on a level of the macro participation in the study and also the micro. For example, if I asked permission to guide a student’s body in any way with my hands one session, I would ask again the next time as well. Data is another ethical pain point. Data must be protected and organized appropriately according to the university’s standards involving proper archiving and password protection. This protects the data as well as the participants’ privacy.

It is important to consider the ethical benefits as well as risks unique to insider research. Performing research within my voice and pilates studios qualifies as insider research. Insider research refers to when researchers conduct research with populations of which they are also members

(Kanuha, 2000). "This insider role status frequently allows researchers more rapid and more complete acceptance by their participants" (Dwyer Buckle, 2009). The largest concern the subjectivity and that the researcher's bias may negatively impact the research. Even an insider's familiarity may hinder the study as opposed to an outsider's novel point of view. My pilates study would need great care to be taken around my own familiarity. The usual ease and flow I have going about sessions in the studio would need be replaced with a more organized, systemized routine lest I forget certain elements because I am far more familiar with the equipment and pilates method than my potential participants. Even more care with systemized data collecting should be taken. The benefits are that I maintain personal experience and knowledge of both pilates and voice as an instructor and a practitioner. This gives me ability to intimately understand the subjects of my study and the data collected.

Conclusion

As I reflect on the contents of this module, I must come back to the ethics of research. Our ethics must precede our every move as educators and researchers. The Singapore Statement outlines some wonderful guidelines, but putting them into practice will surely be a challenging though imperative task for each and ever research project. It seems, only when a researcher has a grasp of

what is ethically expected of them, can they actually begin the process of research. Cohen et. al write “in designing research, we need to consider the issues of how to choose a research project, how to plan it, how to conduct a literature search and review, and how to ensure that the project is practicable” (2018, p.148). This paper set out to make a first attempt at this, while concurrently metabolizing the vast subject matter that is research. I am beginning to connect the broader concepts of epistemology, ontology, axiology, paradigms, and methodology with the more distinct methods of research, sampling, and analysis. Certainly, I am forming a clearer idea of where to begin with my upcoming Module 3.

My stance may change before I even begin that next module, but as of now I most closely identify with the epistemological stance of relativism that there are multiple realities and no one true reality exists. This informs my decision to use a mixed methods approach when considering my pilates research utilizing qualitative and quantitative data. Pragmatic methodology aligns well with my intent to create a mixed methods research strategy as it supports using all methods necessary. In this hypothetical research project, I would be employing deductive research methods and utilizing snowball sampling, self-selection sampling, and or case-studies.

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