

Module 2

BMPF7005

Undertaking Research in Workplaces

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Critically evaluate a selected range of methodological approaches appropriate for research in work-based settings, with due consideration to research ethics and insider research issues.

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Introduction

The purpose of this paper is to build a *methodological framework* for undertaking research within my professional practice as a teacher of contemporary singing. Walliman (2010) posits that adhering to established academic *research protocols* is likely to produce a more dispassionate, less biased, search for new knowledge. Furthermore, Costly, Elliott & Gibbs (2010) suggest that the potential for building a new theory about an element of my practice is also more likely if the processes undertaken are *methodical*. As a lone-practitioner working on a one-to-one basis, predominantly with novice and professional adults, I draw currently on knowledge gained academically or developed experientially. This includes the learning extracted from a long-standing career as a singer. Resolving specific problems with individuals is exciting, often bringing value to my wider practice, but it can be spontaneous by nature, drawing on-the-spot conclusions that are not methodically tested and therefore difficult to quantify. This is due, in part, to the imposed time-constraints of a singing lesson with consideration also to the behavioural nuances of the particular singer, and to the trans-disciplinary nature of teaching singing. Singing fuses science, for example physiology or psychology, with art, and requires expertise in a multitude of fields of study (Dicther et al., 2018; Herbst, 2016; Zhang, 2016) which, in my experience, can feel chaotic and overwhelming. I hope to mitigate those feelings by using peer-reviewed literature to clarify the processes involved in undertaking methodical practitioner research. This may ultimately allow me to test some of my theories, in particular, the impact of facial expression on tuning, in a quantifiable way.

In this paper, I will examine the numerous variables in the approach to undertaking ethical research. The literature I have referred to demonstrates that there is a discernible protocol of events that needs to be considered before, during and (occasionally) after, the research (Costley et al., 2010; Gray, 2004; Grix, 2002; Morgan, 2007; Tsung, 2016). These include an analysis of the *Research Paradigm* which represents the researcher's philosophical standpoint (Costly, Elliot & Gibbs, 2010). As there are a multitude of such paradigms, I have chosen to explore those most commonly cited in the literature that I am reviewing, and those that may be representative of my own position as a 'practitioner-researcher'. These include *positivism, intepretevism, social constructivism and pragmatism*. Each paradigm is aligned to a specific doctrine for determining the nature of how truth is constructed. This is known as *ontology* and *epistemology*. Understanding my own position on these will help me determine the paradigm that will govern my own research (Berryman, 2019; Goertz et al, 2016). Next, I will consider research *methodologies*. An appropriate *methodology*, generally *quantitative* and *qualitative*, is chosen according to the nature of the research question being posed and the type of data being sought. I will then explore the *methods* available for collecting data within either framework. Studying my students at grass-roots level defines me an *insider-researcher* and as such, I will consider the advantages and challenges that could manifest in this setting. Finally, I will examine the *ethical considerations* as determined by University of Wales Trinity Saint David (UWTSD), that must be addressed prior to undertaking any work-based research.

As I begin my research for this paper, it is motivating to discover the value placed on ‘work-based, methodically controlled research’, determined in a report by Katuščáková et al. (2021), commissioned by the *National Centre for Research Methods*, to be a major contributor to the *knowledge economy*. Described as “a crucial collective project of producing knowledge and allowing knowledge to grow” (Connell, 2015, pp91-95), the knowledge economy is considered essential to *technical and scientific innovation* (Ungar, 2019) and considered to be necessary to the common good (World Bank, 2000). Whatever the outcomes of my own work-based research, the learning is likely to add value to my practice. Additionally, the research may bring benefits to a wider community of singing teachers, thereby adding, in a very small way, to the knowledge economy.

Approaching research

The research paradigm

Recognising the assumptions about the nature of truth, reality and knowledge held by the researcher is key to establishing the *research paradigm* (Guba & Lincoln, 2000). In essence, the paradigm represents the beliefs and values that underpin how a problem is solved (Schwandt, 2015). Vocal pedagogy is particularly challenging in this respect as it is a multi-disciplinary field of study involving artistic considerations alongside neurological, physiological, emotional and psychological phenomena (Dicther et al, 2018; Herbst, 2016; Lester and Costley, 2009; Zhang, 2016). As it would take more than a lifetime of study, it would not be reasonable to expect a singing teacher to be an expert in each of these fields; therefore, in my experience, problems are resolved by using logic and reasoning, along with a process for evaluating the nature of what and why I believe something to be true. Bogdan and Biklin’s (1998, p22) description of the *research paradigm* as “a loose collection of logically related assumptions, concepts or propositions that orient thinking and research” resonates and lends clarity to what was, initially, an esoteric concept for me. Paradigms are competing schools of thought that can often give rise to disagreements, particularly on the nature of how truth is constructed (Costley et al., 2010). It is therefore useful to recognise the *ontological* and *epistemological* perspectives of each. *Ontology* describes how reality is viewed, for example, as a social construct, or as continuous change, or as a single truth. It can be objective or subjective and is subject to neurological, physiological, emotional and psychological phenomenon (Dicther, et al., 2018; Herbst, 2016; Zhang, 2016). *Epistemology* describes the nature and acquisition of knowledge (Berryman, 2019; Goertz et al, 2016). In other words, how we know what we know and what can be accepted as knowledge (Scott, 2023). This can encompass reason, empirical, or experiential evidence, reliability, memory or intuition (Dudovsky, 2022). There are a multitude of named paradigms and each one possesses its own ontological and epistemological framework.

In this paper, I shall examine the *positivist*, *postpositive*, *interpretivist*, *social constructivist* and the *pragmatic* paradigms. The tenets of *positivism* uphold that any attestation must be substantiated scientifically or supported by judicious logical or mathematical proof (Cohen and Manion, 2018; Cresswell, 2003; O'Leary, 2004; Walliman 2001). Ontologically, the positivists believe there is only one truth and therefore the epistemological position of the positivists is that perceived truth is underpinned by irrefutable science. As there is considerable research on the anatomy of the voice (Barney et al., 2005, 2007; Chen, 2016; Dimon, 2018; Harris, 2020; Hrelec et al., 2020; Sundberg, 1987, 1989), it could be assumed that this will provide the answer to a practice-based question in the singing studio or the resolution of a problem; therefore the positivist ontological perspective might apply. However, Callaghan (2014) observes that as most singing teachers do not have access to the sort of medical equipment and resources necessary to scientifically verify the work-place experience, it becomes less possible to substantiate theory with scientific fact. Equally, in my experience as a singing teacher, it is the observational, 'real-world' experiences and the interpretation of these through language, that contributes substantially to the evolution of my practice. Therefore this does not hold with the positivist ethos. *Postpositivism*, is a concept developed after World War II (Mertens, 2005) that hypothesises that research is influenced by a variety of established theories in addition to the one that is being tested (Cook & Campbell, 1979). This resonates, perhaps, with the cross scientific nature of voice production, but is probably less useful due to the volume of supporting specialist knowledge required. The *Interpretivist* alternative ontological position suggests that although science holds absolute value, it is inextricably tied into the lived experience and subject to human interpretation (Walliman, 2001, after Wittgenstein, 1921). This cannot be dispassionate or neutral, and therefore cannot possess unbiased purity (Walliman, 2001). Similarly, the *social constructivist* paradigm presupposes that our perceptions of truth are constructed by people, thereby giving value to human experience (Easterby-Smith, 2018). Human experience is pivotal to vocal pedagogy and in keeping with *social constructivists*, uses observation, personal experience, and induction (an assumption based on observed behavioural patterns) to create theories (Saunders et al., 2019). However, there may be some limitations to the *social constructivists* doctrine when considering the range of challenges faced by singing teachers who need to consider all manner of resources, beyond those just described, to solve specific problems. According to Charmaz (2006), and in contrast to the more isolationist role of the researcher as 'leader' in positivism, the constructivist researcher is personally engaged in the research; this is known as 'insider-research', and new theories are co-constructed between the researcher and the participants. Charmaz (2006) also highlights the need for researcher accountability in giving context to the research. For example, a clinical psychologist undertaking research about music performance anxiety (MPA) is likely to be positioned differently to a singing teacher with years of performance experience writing on the same subject. The clinical psychologist might turn to scientific research, including quantifiable data, suggesting a *positivist* approach, whilst the teacher may have constructed their theory based on their observations of real-world performing experiences. In other words, the reader needs to understand the lens or philosophical paradigm through which the research is being presented.

Whilst aligning with a suitable paradigm is essential to underpinning research, Feilzer (2010) cautions that it can, sometimes, feel stifling to rigidly to stand by one particular framework. As I consider the nuanced manner in which different students process information, for example, through imagery, verbally or kinaesthetically, a 'one-size-fits all' approach to finding solutions to specific problems in my own practice, requires a freedom of movement in approach. Given the opposing standpoints of the *positivists* scientific approach and the observational and experiential philosophy of the *social constructionist* paradigms, it is perhaps easy to see how such constraints could impose a limited freedom of movement. In contrast, the *pragmatist* framework allows for movement between elements of these two paradigms to seek a resolution to a specific problem; thus avoiding philosophical conflict. *Pragmatists* believe that reality is considered as constantly in flux and negotiable and can be interpreted in a way that will best serve the resolution to a problem (Scott, 2023). Morgan (2007) suggests that through a combination of *deductive* and *inductive* reasoning, explained in the next paragraph, the *pragmatic paradigm* could provide the necessary flexibility to lead practice-based researchers, such as singing teachers, in problem-focussed research (Feilzer, 2010).

Cohen and Manion (2018) suggest that the most successful approach to the discovery of truth is through the combination of lived experience and reasoning. Reasoning is a method of using logical arguments to reach a conclusion. *Deductive reasoning* begins with a general statement and, through logical argument, reaches a conclusion (Saunders et al., 2019). A hypothetical example might include: *all people who can speak and hear, can sing. I am such a person, therefore, I can sing.* *Inductive reasoning* works by using observation to draw conclusions (Saunders et al., 2019), such as the methods used by Darwin for his *Origin of Species*, developing hypotheses by collecting facts based on observation on a wholesale scale (Medawar, 1969). Saunders et al. (2019) highlight that inductive reasoning 'proposes' a new theory from observation but does not offer conclusive evidence. A purely illustrative and hypothetical example of inductive reasoning in the singing studio might be; *as a singing teacher, I have observed that not all people can pitch accurately enough to be able to hold a tune, but with guidance and practice they can all learn to do so.* Therefore, I might (hypothetically) conclude from the observed evidence, that *all people who can speak and hear can learn how to sing.* *Abductive reasoning* combines elements of the deductive and inductive processes, seeking explanations that involve the fewest assumptions (Saunders et al., 2019) such as doctors, jurors, and singing teachers, who need to reach the mostly likely conclusion based on a set of observations. The adductive process allows for inductive observations to be tested by deductive reasoning, continually refining or disregarding the results (Morgan, 2007; Walliman, 2001); thus leading to the development of ampliative knowledge. Perhaps, now, I might deduce that *all people who can speak and hear can learn to sing. I am such a person, therefore, I can learn to sing.* All modes of reasoning require pre-existing forms of knowledge to form deductions; in the hypothetical case that deduces that *all people who can speak and hear can learn to sing*, a scrutiny of the criteria by which a person is being judged to be *able to sing* and an analysis of what the researcher considers to be singing, would add substantive context to the statement. In other words, reality is generated through contextual understanding of a specific

problem, essentially, reinforcing the necessity to define the ontological and epistemological standpoints of the researcher.

Undertaking Research

Research Design and Methodologies

Sellitz (1962, p19) describes the purpose of *research design* with great clarity; “the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure”. In essence, research design is the overall strategy that seeks to answer the *research question*. In formulating the precise research question, Thakur, (2021) poses 8-questions (appendix 1) to help with establishing the prime objectives and significance of the study and the kind of data and methods of collection, analysis and presentation required to answer it. Additionally, Winter (2019) advises initial research to establish how ‘researchable’ the topic is, and heeds the researcher to consider whether the scope is achievable within the imposed time frame. The overarching methodologies required for extracting the relevant data are *quantitative* and *qualitative*. Quantitative methodology is a fixed design for the gathering of measurable numeric data, tending to look for cause and effect by deductive reasoning (Scott, 2023). A research question that includes close-ended questions such as ‘who? what? where? And how many?’ is likely to necessitate a quantitative design (Thakur, 2021). *Positivists* and *postpositivists* might use quantitative sampling, measurements or statistical analysis as methods for data collection. Finding value in *quantitative* data usually, but not always, requires high sample sizes to extract meaning (Fugard et al., 2015). A word-based, flexible, *qualitative* methodology looks for meaning in experience through open-ended questions, in order to develop a theory (Thakur, 2021). It is closely associated with elements that are non-quantifiable, such as feelings, personal experience, and the impact of words and sounds (Easterby-Smith, 2018). Fugard et al. (2015) contend that determining sample sizes in qualitative research can depend on the depth of the research, the available resources, timescale, and any prior knowledge of the theme. The sample size should be small enough to be manageable within the given resources and large enough to deliver a new understanding of experience (Sandelowski, 1995). The qualitative process includes induction where value can be extracted from very low sample rates, including single sample case studies (Reid et al., 2005). As a single practitioner, working on a one-to-one basis, my sample rates are likely to be very low and the inductive processes applied to the methods of collecting experience-related data suggest that my research is likely to be qualitative. However, it is possible for research to include both the qualitative and quantitative methodologies within a single piece of research (Denzin, 1978; Patton, 1999). For example, *pragmatists* can also use the *quantitative* process for measuring data and for *thematic analysis* (the process of finding patterns and correlations within data) or usability testing (Braun & Clarke, 2006).

There are a number of methodologies that could have an application to my own research that exist within the overarching *quantitative* and *qualitative* design frameworks. *Action research* is a form of collective and reflective enquiry where the participants are actively involved in the process of finding solutions. Hine (2013) recognises the benefits that this collaborative process brings to the development of pedagogy. Action research operates on a cyclical basis of reflection, observation and planning (Reason et al., 2008), which Stringer et al., (1996, 2007, 2008) refer to as a *look, think, act* cycle. *Case studies* typically combine methods of data collection including interviews, questionnaires and observation and can be an effective means for building or generating a new theory that can be tested later (Eisenhardt, 1989; Glaser and Strauss, 1967). It seems possible that a *case study* methodology might be an appropriate approach to developing my theory on the relationship between the face muscles and sung pitch. Pettigrew (1973) advises against random selection of samples, suggesting instead to choose those that are likely to replicate or extend an emergent theory, in other words, to look for polar types. Eisenhardt (1989) warns that emergent theories from case studies can present as narrow or idiosyncratic, and cautions that the researcher can lose sight of the overall perspective through excess of detail. Therefore, a predetermined timeline of events, such as a Gantt chart, and regular feedback from my UWTSD tutor should assist in keeping the focus relevant. Case studies can include *grounded theory* which is a methodology that draws on inductive strategies for generating new theories. The process begins without a base-theory or hypothesis, instead, developing theories over time that are continually refined (Charmaz et al., 2008). Studying lived experience and physically active behaviour from a first-person point of view (Smith, 2018) is known as *Phenomenology* (Husserl, E., 1901, 1913, 1920). The nature of the “conscious, cognitive mental activity in thought, perception and action” (Smith, 2018, p7) that defines phenomenology, requires that the researcher extricate themselves from the research in order to deliver a more objective, first-person point of view. However, *social situatedness* (Lave and Wenger, 1991) is a key facet of practitioner research and, as singing teachers are immersed within the culture of their own research, epitomising *insider research* (Easterby-Smith et al. 2018), it may be challenging to preclude the teacher involvement. In essence, *Social situatedness* seeks to highlight the possible impact of the researcher position as the interpreter of emerging information, in order to mitigate unintentional bias. *Hermeneutics* is the process that tries to understand the consciousness of the lived experience through language, as spoken or written as text (Kvale, 1983; Lavery, 2003). Interpretivism and social constructivism are built on the tenets of Hermeneutics, involving a process of moving back and forth through text, each time adding new meaning by repeatedly and consistently referencing the original research question (Paterson and Higgs, 2005). There is no requirement to extricate the researcher’s experience in the *Hermeneutic* process.

Research Methods

Research *Methods* are the tools that facilitate the collection of data and will vary according to the requirements of the research. *Observation* is a recognised research method within qualitative research and also plays a significant role in attempting to resolve real-world problems in my

singing studio. In developing the theory that there may be a correlation between pitch and facial expression, I hope, ultimately, to develop strategies to help singers improve their tuning. It will be necessary to undertake a *literature review* on the physiology and biomechanics of the face and vocal tract. This will enable me to direct the participant in the study and better understand the physiological experience. This kind of *document analysis* is likely to lead to further questions and, possibly, reframe the emerging theory. Guber et al., (1994) caution that the researcher needs to ensure the authenticity and dependability of the documentary evidence for the sake of the reliability and robustness of the new research. This might apply more strongly to qualitative research, which might not be conclusive (Scott, 2023). I will use spectrographic analysis to gather data in graphic form to record the changes to the harmonic structures of the sound waves as they are manipulated by facial movements. A carefully considered *questionnaire* may improve my understanding of the vocal tract sensations experienced by the participants which, in the long term, may improve my pedagogy in this area. Other qualitative research *methods* that may be pertinent to my own field of study include structured and unstructured *interview* styles. These can provide useful sources of data but require detailed consideration of the language employed in order to draw out information that is relevant to the research question, without coercion. In qualitative research, a process of *Triangulation*, can develop a deeper understanding of phenomena. Triangulation refers to the use of multiple methods in qualitative research, requiring at least two methods (Patton, 1999) to test the validity of the findings by converging information and seeing how it interacts with or supports the other (Denzin, 1978; Patton, 1999).

Fundamental principles that govern ethics in research

It has become clear to me, as I familiarise myself with the key facets of research design, that the process itself is underpinned by the continuing demand to scrutinise the nature of 'truth'. The literature is clear that this kind of rigour is necessary in lending integrity to the contribution of new knowledge (Costley et al., 2010; Gray, 2010; Lester, 2010; Tsung, 2016; Walliman, 2001).

Additionally, there are overarching *ethical principles* that govern *the way* in which living-subject research is undertaken. A code of ethics is a set of official standards of conduct ([dictionary.com](https://www.dictionary.com)). In the case of the insider-researcher, it is designed to protect and respect the rights of the participants and uphold the integrity of the university and the researcher. The University of Wales Trinity Saint David's (UWTSD) *Research Ethics* (appendix 2) provides a framework to ensure that all ethical considerations have been observed, from concept through to the impact of the research.

Additionally, I have found the requirements of the UWTSD *Application for Ethical Approval* to be particularly helpful in identifying and contextualising (to my own practice), the ethical implications of a specific research proposal.

The ethical principles laid out by UWTSD (appendix 2) are closely allied to the Belmont Report drawn up in 1979 by the British government to ensure that research involving people as subjects, must be governed by an ethical framework. The three basic principles of the Belmont Report are: 'respect for persons, beneficence, and justice'. UWTSD also carries a central theme of

Beneficence, 'do positive good' (Hippocrates, 460BC) and *non-maleficence* 'do no harm' (appendix 2:1). It is interesting to note that beneficence, when alluded to in the Belmont Report, is tethered to a strong obligation 'to maximise possible benefits and minimise possible harms' rather than simply describing acts of kindness or charity. The same report states that there must be a favourable risk/benefit assessment to justify any research. This does perhaps highlight the necessity for actively defining the benefits to the participants during the research design. "Respect for the individual's right to choose is at the core of ethical research" (appendix 2:7), positing that *consent* is regarded as a basic human right and, according to UWTSD, that it must be *informed, voluntary, and competent* (appendix 2:7). Signed consent forms (with names redacted to protect anonymity) are required by UWTSD for the majority of people involved in the research (appendix 2:7). My existing students are likely to be my research subjects and, as such, I want to ensure that their participation is enthusiastic and voluntary. However, I am mindful that the personal nature of the singing teacher / student relationship is such that there might be an *implied pressure* to participate. To mitigate this, the aims, processes and level of participation need to be shared with the student in a way that uses unambiguous language and seeks to diminish any feelings of obligation or uncertainty (appendix 2:7). The participating individuals will also be made aware that they can withdraw from the research at any point and that their participation is anonymous (appendix 2:8). There may be further reassurance for the participant in knowing that the UK's Data Protection Act, 2018, states that the collected data can only be used in the way that has been agreed to by the participant and that they also have the right to know who has access. UWTSD highlight the necessity for a *risk assessment* (appendix 2:2), prior to engaging in research; for example, social researchers need to assess the potential threat of physical intimidation from participants and of incidence of emotional distress arising from participant/researcher interactions. The notion of avoiding risk extends to the safe-keeping of the data that is collected which must be held securely in accordance with the Data Protection Act 2018, and should be accessible in the event of an audit at a later date (appendix 2:1).

Failure to meet ethical, professional and legal obligations, as outlined previously and in appendix 2, would be regarded as research *misconduct*. Additionally, 'fabrication' or 'falsification' of data and *plagiarism* are also considered grounds for misconduct. I have become mindful that the practice of writing notes 'verbatim' can lead to 'accidental' instances of plagiarism. The facility to paraphrase or interpret, while still acknowledging the source, is an area of my practice that requires development. It is clear that a combination of common sense coupled with an adherence to the ethical guidelines supplied is likely to produce research that is underpinned by honesty and integrity and that the experience will be enhancing for all involved. In the event of a potential ethical transgression, the research needs to cease with immediate effect and the UWTSD ethics committee must be informed. Failure to follow the required protocols would be considered a *maleficence* (appendix 2:3).

The insider-researcher

I consider my position as a lone-practitioner to be one of great privilege. I am freely able to develop my practice, including generating my own research projects. This is professionally and personally validating. *Insider researchers* are uniquely positioned to draw on the trust developed in existing relationships, which is more likely to add depth to the data being sought (Reed and Proctor, 1995). Equally, it is working with these students that allows me to identify the gaps in my knowledge; and therefore any research undertaken is likely to benefit the participants directly (Reed and Proctor, 1995). However, Murray and Lawrence (2000) suggest that this relationship dynamic is likely to possess inherent *bias* and could invalidate the research being undertaken. Bias in this context, would include any influence that may distort or direct the results (Polit and Beck, 2014) or, as Galdas (2017, p2) posits, insider researchers are open to the notion of “mining for data that will affirm their own preconceptions”. The non-quantifiable nature of qualitative research, such as feelings, personal experience, and the impact of words and sounds, is likely to be subject to the interpretation of the researcher. As such, Charmaz’s (2006) view on the importance of author accountability holds particular value in the insider-researcher setting. Costley et al, (2010) also consider that the lack of impartiality inherent in researching one’s own practice will contribute to the notion of bias. They suggest using *triangulation methods*, paying particular attention to participant feedback and having an ongoing awareness of the issues identified in the research plan. UWTSD’s code of ethics (appendix 2) and policy documents, provide a powerful tool for ensuring that protocols are observed and guides the researcher in avoiding the potential pitfalls that face the insider-researcher, such as making assumptions about consent or participation or unwittingly breaching confidence. The collaborative nature of working with an institution, such as UWTSD, allows for ongoing feedback (Costley et al, 2010) and scrutiny of process, in what amounts to rigorously controlled accountability.

Conclusion

It is evident from the literature I have reviewed on work-place research, that any kind of research requires planning and that the process must be methodical (Costley et al., 2010; Gray, 2004; Grix, 2002; Morgan, 2007; Tsung, 2016). Essentially, this will add robustness and therefore, validity, to the research itself. An examination of the researcher’s philosophical position on the research topic, particularly the *ontological* and *epistemological* viewpoints will inform the research paradigm (Berryman, 2019; Costley et al., 2010; Goertz et al, 2016). Although I am keeping an open mind, I recognise that the *pragmatist’s* approach seems to fit the necessity to use logic and reasoning and whatever tools I have available to resolve problems in my practice. The research design and the type of data being sought, will depend on the research question being asked (Thakur, 2021, Selltiz, 1962). The overarching methodologies are generally *quantitative* or *qualitative*, the latter of which might be more suited to the nature and size of my practice. The qualitative processes tend to focus on solutions rather than delivering conclusions (Scott, 2023) and Polit and Beck (2014) warn that the process has an inevitable element of researcher bias. The methods of collecting data are

numerous and depend on the sort of data being sought and the resources available. Throughout my investigations, I have noted the ongoing theme of scrupulous transparency in collecting data, in order to mitigate bias and add validity. Additionally, that this meticulous approach extends into the ethical considerations of undertaking living subject research (UWTSD). The Belmont Report (1979) highlights the necessity of justification for the research and that it must be of benefit to all participants. Finally, whatever the outcomes, the research will be professionally self-validating, and add value to my practice in a process that draws from and, potentially, adds to, the *knowledge economy* (Connell, 2015).

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Appendix 1

Research Methodology in Social Sciences (A Short Manual)

Harish K. Thakur, New Delhi: Corvette, 2021

Chapter: Research Design

Establishing the Research Question

A research design not only includes the objectives of the study but also the scope, coverage, timeline, limitations, methods of data collection, tools of analysis and the data analysis and presentation. Decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitutes a research design. The purpose of a research design is to answer:

- (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.

Keeping in view the above decision one may split the overall research design into following parts:

- (a) Sampling design - method of selecting items.
- (b) Observational design - strategy of data selection.
- (c) Statistical design- strategy of data analysis.
- (d) Operational design - procedures specified in the above three to be carried out within the design's given constraints.

Appendix 2

Fundamental principles that govern ethics in research - Debbie Winter (2019)

University of Wales Trinity Saint David

What follows is an abbreviated version of the document's key points

Section 1

- a. Beneficence: 'do positive good'
- b. Non-maleficence: 'do no harm'
- c. Protect participants' interests and /or rights
- d. Ensure participant and researcher safety and risk: i.e. the need to avoid harm or potential harm.
- e. Consider and protect against where necessary the impact of work on others
- f. Ensure informed consent: i.e. the need to inform participants of the aims and procedures of the research and obtain their agreement to take part on the basis of this information
- g. Avoid deception: i.e. the need to avoid deception in informing participants about the research, or to justify the need for deception if necessary
- h. Provide debriefing: i.e. the need to provide participants with additional information to support them after taking part in the research, and/or to provide true information if deception was necessary originally
- i. Allow withdrawal from Investigation: i.e. the need to inform participants of their right to withdraw from the research at any stage, including during or at the end of their involvement
- j. Ensure confidentiality: i.e. the need to reassure participants that information they provide will not be disclosed without prior consent to others other than within the context of the research, or at a minimum will be made anonymous
- k. Data security and archiving: i.e. to ensure that research data is held in a secure manner consonant with the requirements of the Data Protection Act and that it is archived in such a way that it will be accessible for future audit purposes.

Section 2

Safety and risk in the field

There are a variety of dangers which can face people engaged in research. Researchers have an obligation to themselves, to co-workers and to researchers under their direction to maintain awareness of potential dangers and to take steps to diminish these. The main dimensions of risk to social researchers are:

- Danger of physical intimidation, or actual bodily harm; and also the psychological trauma which could result from these;
- Emotional distress in response to participants' disclosures;
- Being put in compromising situations, such that they risk being accused of misconduct;
- Arousal of suspicion and antagonism from authorities.
- Explicit discussion of risks and identification of appropriate countermeasures is likely to be beneficial in minimising anxiety and thereby freeing the researcher to concentrate on the work.
- Exercising basic common sense is paramount and each situation should be evaluated separately. Situations can change rapidly in the field; therefore it can be important to keep safety under review, especially where situations have already been identified as dangerous.
- It should be recognized that in some research scenarios physical dangers may come from people connected with those being researched (e.g. husbands of abuse wives, or associates of criminals), rather than from the research participants themselves.

Section 3

Unforeseen ethical implications

In all cases any adverse events occurring during the conduct of research projects must be reported to the Ethics Committee. In such cases the researcher, whether staff or student, shall withdraw from the research process with immediate effect until notified by the Ethics Committee that the University is satisfied that the research design has been modified in such a way as to mitigate further harm.

Section 4

Working with Children

Staff and students at whatever level undertaking research work which involves one-to-one or other unsupervised contact with children will be checked. The need for a check should be identified by

the researcher and supervisor on the basis of the nature of the activity involved. The Ethics Committees may also make recommendations regarding DBS checks for projects they review.

While the DBS no longer recognises the category of 'vulnerable adult', particular attention must be paid to the research design, research implements, gaining consent and respecting confidentiality regarding research with a vulnerable adult.

Section 5

Research Misconduct

Research misconduct can take many forms, including:

- fabrication: making up results or other outputs (eg, artefacts) and presenting them as if they were real
- falsification: manipulating research processes or changing or omitting data without good cause
- plagiarism: using other people's material without giving proper credit
- failure to meet ethical, legal and professional obligations: for example failure to declare competing interests; misrepresentation of involvement or authorship; misrepresentation of interests; breach of confidentiality; lack of informed consent; misuse of personal data; and abuse of research subjects or materials
- improper dealing with allegations of misconduct: failing to address possible infringements such as attempts to cover up misconduct and reprisals against whistle-blowers

Section 6

Research Guidelines

In principle:

- The research should be methodologically sound and the purpose should be to contribute to knowledge;
- The research should be undertaken and supervised by those who are appropriately qualified and experienced;
- The importance of the objective should be in proportion to the inherent risk to the subject. Concern for the interests of the subject must always prevail over the interests of science and society;

- The research should be preceded by careful assessment of predictable risks in comparison with foreseeable benefits to the subject or to others;
- Research should not be undertaken where the hazards involved are not believed to be predictable;
- Adequate facilities and procedures should be in place to deal with any potential hazards.

Section 7

Consent

Informed Consent (Adults) It is generally held that sane competent adults should be free to make their own decisions. Consequently, respect for the individual right to choose is at the core of ethical research. Gaining informed consent is an essential element of ethically valid social research.

- **Informed** - given in possession and understanding of the principal, relevant information;
- **Voluntary** - given freely and not as a result of coercive pressure (real or perceived);
- **Competent** - given by somebody able, in virtue of their age, maturity and mental stability, of making a free, considered choice. basic principles apply.

More specifically, it is necessary to ensure that the potential research participant is fully aware of, and fully understands,

- a. What the research is about
- b. Why it is being conducted;
- c. Who it is being conducted for and who is funding it;
- d. What the purpose of the study is and what will happen to the results;
- e. Where the results will appear and who is likely to have access to them;
- f. What will be expected of them if they agree to participate and how long their participation will take
- g. What anonymity and confidentiality mean in practice and an understanding that the participant does not have to participate; and having agreed to participate can withdraw any time without detriment.
- h. Any documentation given to potential participants must be comprehensible and there should be an opportunity for them to raise any issues of concern;
- i. Consent should be acquired in writing and records of consent should be maintained;
- j. Potential participants must be informed that they are free to withdraw consent to participation at any time;
- k. There should be a procedure for making complaints and participants should be made aware of this
- l. All participants should be volunteers.

- m. Considerable care should be taken where consent is sought from those in a dependent position and it should be made clear that refusal to participate will not lead to any adverse consequences. For example, students must be assured that any decision not to participate will not prejudice in any way their academic progress;
- n. Consent must be obtained from a legal guardian in the case of minors or any others who do not have the legal competence to give informed consent.
- o. Asking participants to sign a written consent form is a widely accepted method of obtaining informed consent. In addition to ensuring that participants agree to participate of their own free will and understand what they are getting involved in, the existence of signed documentation protects the researcher from subsequent accusations by participants. Any inducement offered to participants should be declared.

Section 8

Anonymity and Confidentiality

The right of the individual to privacy is a pre-eminent ethical driver in western societies. In the social researcher's relationship to participants this translates into two imperatives: anonymity and confidentiality which may be defined as follows:

- Anonymity refers to concealing the identities of participants in all documents resulting from the research;
- Confidentiality is concerned with who has the right of access to the data provided by the participants.
- Anonymity and privacy should be respected. This means that care should be taken in deciding whether or not sensitive information should be recorded;
- Identities and research records should be kept confidential whether or not an explicit pledge has been given
- The right to remain anonymous should be respected unless a clear understanding to the contrary has been reached.
- Researchers have the responsibility to ensure appropriate precautions to protect the confidentiality of participants' data. For instance, names and any information from which identities could be inferred (e.g. locations) should be removed.
- Whilst respecting anonymity and confidentiality are core principles of social research they are not absolutes. There may be situations when the researcher has a duty of care to reveal information that has been provided in confidence, or which the researcher has discovered through interactions with the participant.