Laura Boon
Student No: 2116222

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Critically evaluate a range of methodological approaches, research designs, and research methods appropriate to gather data from complex work-based settings, with due consideration to research ethics and issues of insider research.

Introduction

As a voice teacher both in my private studio practice and in a tertiary education institution, my students range from avocational teens to aspiring professionals. I also facilitate group classes and courses on vocal technique and improvisation. I would like to develop my research interest in improvisation because when I introduce improvisation tasks in lessons I have noticed there is some division amongst my student population, who either seem to embrace it or have an aversion to it. Discussions with voice teacher colleagues have also revealed different approaches to teaching it, if they incorporate it into their teaching at all. This assignment evaluating methodological approaches, research designs, and research methods will guide my decision-making process for my future work-based learning project.

Ontology and Epistemology

Establishing an ontological and epistemological position provides a philosophical basis from which to embark on work-based research. Ontology is the nature of existence (Gray, 2022); it can be understood on a spectrum from realism to relativism. Ontological realism asserts that reality is singular, objective and knowable (Guba and Lincoln, 1994), and ontological relativism asserts that there are multiple socially constructed realities shaped by our individual subjective experiences of the world (Chilisa and Kawulich, 2012).

Epistemology is informed by ontology, and can be described as the nature of knowledge - “the relationship between the knower… and…[the] known” (Guba and Lincoln, 1994, p.108), which is an incredibly important consideration when planning a research project (Gray, 2022). One epistemological position asserts that knowledge is empirically testable, by an investigator who is independent of the topic being investigated (Chilisa and Kawulich, 2012); alternatively, the

process of knowing could be seen as subjective, linking the investigator and investigated in the process of inquiry (Guba and Lincoln, 1994).

In my teaching practice, there are elements of both objectivity and subjectivity. I believe that my knowledge of voice science is grounded in objective reality. Ontologically, when vocalising, I believe a student's vocal folds are in a particular vibratory mode at any given time, for example. However, I believe that each student experiences their own voice differently, which is more aligned to the subjective view of multiple realities. Epistemologically, what they hear in their own voice differs from what I, as their teacher, hear in it; this is affected by the knowledge we share with, or withhold from each other, throughout the teaching and learning process. I consequently frequently question how reliable and testable my interpretation of their voice is. I can therefore accept both realist and relativist ontological positions and objective and subjective epistemological positions as possible, thinking of these philosophies as being on a continuum rather than as being opposing positions (Saunders et al., 2012).

Paradigms

Paradigms are fundamental belief systems, that guide and steer the research process (Feilzer, 2010). There are many paradigms, but within the scope of this assignment, I am going to discuss positivism, post-positivism, constructivism and pragmatism.

The positivist and post-positivist paradigms align with the realist, objective ontological perspective (Guba and Lincoln, 1994) and an epistemology where testable, replicable findings are either certain (for positivists) or probable (for post-positivists) (Chilisa and Kawulich, 2012). Within these paradigms, the researcher is independent and objective (Easterby-Smith et al., 2012). Research is generally deductive, starting with hypotheses that are to be proven (in positivism) or disproven (in post-positivism) (Hall et al., 2013). Two benefits of a positivist approach are that it can apply to a broad range of situations, and its focus on uncovering the objective truth very often helps to inform policy decisions, so the impact of such research can be significant (Easterby-Smith et al., 2012).

By the 1980s, dissatisfaction was growing with positivism's inflexibility, its limited ability to understand process, and its focus on testing theories rather than generating them (Easterby-Smith et al., 2012). This led to a new paradigm, constructivism (Guba and Lincoln, 1994), where multiple realities are ontologically accepted, the epistemology focuses on the context-dependent truth in human experience (Chilisa and Kawulich, 2012) and researchers are actively involved in the research process (Costley et al., 2010). Constructivists' goal is to understand the world from the research participants' points of view (Saunders et al., 2012) giving voice to their experiences and perceptions (Costley et al., 2010). Constructivist research is generally inductive, starting with questions and critiques instead of hypotheses to test (Gill and Johnson, 2010). Some

advantages of constructivist research are that it can look at change over time, it can be flexible in adapting to emerging ideas, and it is good at generating new theories (Easterby-Smith et al., 2012). However, data collection can be time and resource-heavy, research can feel untidy as end-points are often left undefined, and its subjective nature often makes it less credible to policy-makers (Easterby-Smith et al., 2012).

Positivist and constructivist paradigms have often been seen as opposing, both "elevated into a stereotype… by the opposing side" (Easterby-Smith et al., 2012, p. 22) Saunders argues that if choosing a position on the paradigm continua is difficult, then pragmatism may offer a solution (Saunders et al., 2012) as it doesn't fit neatly into any ontological or epistemological boxes or definitions (Morgan, 2014). The pragmatic paradigm accepts the coexistence of singular and multiple realities using abductive reasoning, and an intersubjective approach that works between various frames of reference (Morgan, 2007). Pragmatic researchers have to be open to the unpredictable human element in their inquiry and commit to being flexible (Feilzer, 2010). Pragmatism allows the most appropriate method to be used to answer the research question (Feilzer, 2010), either quantitative, qualitative or mixed methods (Saunders et al., 2012), and so would potentially work well for an independent work-based learning research project in voice pedagogy.

Quantitative, Qualitative and Mixed Methods

Although certain research methodologies tend to align with certain paradigms, all types of methods can be used with any paradigm (Guba and Lincoln, 1994). Quantitative and qualitative data have different attributes and need different analytical approaches (Walliman, 2005).

Quantitative methods have an affinity with positivism (Morgan, 2014), as they are usually deductive and objective (Saunders et al., 2012). Quantitative research demarcates phenomena into numerically measurable categories which can be controlled, manipulated and tested (Golafshani, 2003). Where testing produces repeatable results (internal consistency), the results are seen to be reliable. Where the results are statistically analysed and generalisable, they are seen to have external validity (Dawson, 2009).

Quantitative research has a distinct practical advantage: the data collected are often analysis-ready and do not need time-consuming coding (Saunders, 2012). However, quantitative methods can be limited in scope, as the data generated are often so highly specific to the research context, due to the strict conditions under which the research is conducted, their applicability and external validity are limited (Guba and Lincoln, 1994). For example, a 2017 study measuring classical singers' tonal outcomes when they had different attentional foci produced very context-specific results that were not easily generalisable (Atkins 2017). Other disadvantages are that the statistical analysis needed to draw inferences is a highly skilled task

(Costley et al., 2010), and the focus on proving or disproving of hypotheses excludes the discovery dimension of research (Guba and Lincoln, 1994). Quantitative methods are excellent for illustrating statistical significance and etic (outsider) viewpoints in research, but meaning and purpose are often missing in the data, along with emic (insider) views (Guba and Lincoln, 1994). To explore these, one needs to use qualitative research methods.

Qualitative methods, historically utilised in social science (Guba and Lincoln, 1994), have an affinity with constructivism (Saunders et al., 2012), as they usually acknowledge subjectivity (Sarma, 2015) and are inductive (Morgan, 2007). Sometimes qualitative research is called 'naturalistic' as it is usually done in natural settings (such as a voice studio) rather than in a laboratory, which may help to put participants at ease and establish trust (Saunders et al., 2012). Qualitative researchers do not always seek generalisability in their results as a way of establishing the quality of the research (Golafshani, 2003), but rather seek to uncover rich, in-depth contextual data that generates understanding and "explores attitudes, behaviour and experiences" (Dawson, 2009, p. 14), which relies on building rapport with participants (Saunders et al., 2012). Qualitative research often generates a large amount of data, the transcribing, organising, coding and analysing of which can be "involved and lengthy" (Costley et al., 2010, p. 98).

One of the main criticisms of qualitative research by positivists is that it is seen to lack reliability and validity (Golafshani, 2003). However, constructivists argue that qualitative researchers should aim for rigour (Golafshani, 2003) which can be achieved in various ways: by being systematic in their approach and being transparent about all processes, for example by documenting "what I did, how I did it, and why I did it" (Tuval-Mashiach, 2017, p. 126); through replacing reliability with dependability (using coherent methodology and protocols) (Sarma, 2015); replacing validity with trustworthiness and credibility (Guba and Lincoln, 1994); and by triangulating data through combining more than one method (Golafshani, 2003).

Mixed methods research combines both quantitative and qualitative approaches, allowing both subjective and objective layers of reality to be measured (Easterby-Smith et al., 2012). Although not necessarily synonymous with the pragmatic paradigm (Saunders et al., 2012), it has been hailed as a solution to the conflicts between positivism and constructivism (Feilzer, 2010). Mixed methods allow researchers to find points of connection between the generated theories favoured by qualitative researchers and the defined and tested phenomena favoured by quantitative researchers (Morgan, 2007). Mixed methods researchers often aim for transferability rather than generalisability - thinking about how data can be pragmatically used and applied (Morgan, 2007). Triangulation, where more than one method is used to investigate the same subject (Davies and Hughes, 2014), is used to ascertain corroboration between methods to enhance confidence in the research conclusions (Saunders et al., 2012).

However, practical considerations can make mixed methods research difficult. Researchers may need to be competent at "'number-crunching' as well as working with 'soft' data" (Feilzer, 2010, p. 13), and data collection can be more time and resource-heavy than single-method research (Easterby-Smith et al., 2012). Before embarking on this type of inquiry, the researcher must be sure they are asking the right question, have a solid, coherent research design and be prepared for paradoxes to be revealed in the data (Easterby-Smith et al., 2012). An illustration of these challenges is a 2018 mixed methods study researching the creativity of school-age choir members and their music teachers. The first phase entailed conducting a quantitative survey to gather responses, followed by a second qualitative phase of teacher interviews and student focus groups. The data were triangulated and themes identified, but the conclusions were mixed and complex because the researcher hadn't defined 'creativity' in either the surveys or interviews (Langley, 2018).

Research designs

Research designs and methodologies are terms that appear to be used interchangeably in academic literature, and are the way we go about acquiring knowledge (Costley et al., 2010). They link a researcher's ontology, epistemology, and methods (Saunders et al., 2012).

Experiments

Experiments are dominant in medicine and natural science research (Easterby-Smith et al., 2012), are usually focused on establishing causation between measurable variables, and can be exploratory or confirmatory (Cohen et al., 2004). In a classical experiment - a randomised control trial - a hypothesis is tested by objective researchers (Saunders et al., 2012), who, while controlling and manipulating conditions (usually in a laboratory), conduct an intervention by changing an independent (input) variable and measuring its impact on a dependent (output) variable (Cohen et al., 2004). Key features in such an experiment are that the population sample upon which the experiment is conducted is both selected and allocated randomly into either the intervention group, or a control group which does not receive the intervention, so the measured outcomes can be reliably ascribed to the changing of the independent variable (Cohen et al., 2004). The results are then generalised (Cohen et al., 2004). This is often seen as the gold standard in positivist research (Saunders et al., 2012), where bias is minimised and a high degree of certainty can be placed on the results (Easterby-Smith et al., 2012). In vocal pedagogy, this type of research may be most applicable to voice science hypotheses that can be tested in laboratory conditions, although access to the technical equipment that can measure vocal outcomes, such as spectrograms or laryngoscopes (and the expertise and experience to use and interpret them) may be difficult.

A quasi-experiment is very similar to a classical experiment, but it lacks one or more strict conditions, such as having a control group, or randomisation (Cohen et al., 2004). Its goal is still to understand how an intervention influences a particular group (Davies and Hughes, 2014), and it is commonly used in education and small action research projects that ask “what happens if I do *x*?” (Costley et al, 2010 p. 97). This makes ascertaining causality more contentious as there are uncontrolled variables to take into account that are outside the researcher's control, especially in an educational setting (Cohen et al., 2004), though it may be a more viable and pragmatic option for a small-scale research project in vocal pedagogy.

Both experiments and quasi-experiments can induce the *participant effect*, where the knowledge one is taking part in an experiment may alter behaviour (Easterby-Smith et al., 2012), particularly if the experiment is conducted in a laboratory environment (Cohen et al., 2004). One example of this is Charles Limb’s 2008 study on jazz pianists to monitor brain activity during an improvisation task (Limb and Braun, 2008). In the experiment, 6 musicians had to lie in an fMRI scanner with the keyboard on their lap, with knees elevated by a bolster, and a mirror above to be able to see the keys. They were only allowed to move their right hand, with speakers and ear protection to minimise background noise. Although the study showed interesting results about the brain regions activated and deactivated during improvisation, it’s unlikely the readings were a true reflection of free improvisation because of the effect of the laboratory conditions under which it was conducted.

Phenomenology

Phenomenology is the study of lived experience (Laverty, 2003). Methodologically, it aims to understand “the way in which… humans make sense of the world” (Saunders et al., 2012, p. 137). Phenomenological researchers develop a trusting relationship with participants, who are selected because they have lived experience of the phenomena being studied (Costley et al., 2010). Data collection methods are usually qualitative and often take the form of unstructured interviews (Costley et al., 2010). The researcher is expected to be explicit about their knowledge and experience of the topic, and then ‘bracket’ it - not refer to it during data collection or data analysis - as a way of improving credibility and rigour (Laverty, 2003).

The data that phenomenological research yield make it ideal for answering research questions that are about the core essences of experience (Sarma, 2015), such as music-making. Researchers start without preconceptions (Costley et al., 2010), and allow themes to emerge from the data, connections to be made, and meaning to be inferred (Davies and Hughes, 2014). Limitations of this approach are that the data take time and resources to collect, analyse and interpret, and if adopting a purely phenomenological approach, bracketing experience can lead to questions of researcher bias. In one phenomenological study exploring the skill development and motivation of expert improvisers, De Bruin took many steps to ensure the research was

credible (De Bruin, 2019). He bracketed his own experience, used semi-structured interviews, made and member-checked transcripts, conducted follow-up interviews for additional insights, and triangulated the data (De Bruin, 2019).

Case Study

Case studies are examples of research carried out in real-life contexts, investigating phenomena with the goal of helping others understand similar cases or situations (Saunders, 2012). They usually begin with a *why, who* or *how* question (Davies and Hughes, 2014) and regularly employ mixed research methods to collect data to answer it (Cohen et al., 2004), with data triangulated to safeguard against bias (Saunders et al., 2012).

Considering practicalities, case study research is manageable for sole researchers (Cohen et al., 2004). Case studies are particularly good at investigating phenomena that are not well-understood (Eisenhardt, 1989), and in doing so usually collect a large amount of unique data (Saunders et al., 2012), which may hold the key to understanding the phenomena (Cohen et al., 2004). They often collect contradictory or paradoxical evidence, encouraging researchers to think creatively and gain new insights, which may lead them to generate new theories (Cameron and Quinn, 1988, cited in Eisenhardt, 1989, p. 546). However, like much qualitative research, case studies are prone to bias (Saunders et al., 2012), and their specificity leads them to potentially be transferrable only to very similar groups or situations (Cohen et al., 2004). In voice pedagogy, case study methodology can be a practical choice.

<u>Research Methods</u>

Research methods are the means of collecting data (Dawson, 2009). In choosing which methods are appropriate for a research project, considering sampling is crucial; the choice of participants “must enable you to answer your research question” (Saunders et al., 2012, p. 261), and practical matters such as participant access (Easterby-Smith et al., 2012), research methods chosen, the total population size (Saunders et al., 2012), time and resources available, and how much data you need to generate are crucial considerations (Costley et al., 2010).

There are two principal categories of sampling: probability sampling, and non-probability sampling. Probability samples usually involve large numbers of participants and most commonly fit within the positivist paradigm and quantitative research, and the data gathered from them are usually generalisable (Saunders, et al., 2012); this would be hard to achieve with a small-scale research project in vocal pedagogy. Non-probability samples, though harder to draw inferences from (Easterby-Smith, et al., 2012), may be more achievable for smaller work-based research projects using qualitative or mixed methods, particularly in a field like vocal pedagogy. They can be divided into various sub-types:

- *Quota samples* divide participants into categories and select the same number from each category to research (Easterby-Smith et al., 2012)
- *Purposive samples* are selective and good for finding information-rich cases (Saunders et al., 2012)
- *Volunteer samples* can be useful when participants are hard to find. For snowball samples, existing participants are asked to find other appropriate participants (Easterby-Smith et al., 2012) and self-selection samples are those who respond when the need for participants is publicised (Saunders et al., 2012)
- *Convenience samples* are those found due to their ease of access, but they have little credibility and are prone to selection bias and outside influence (Saunders et al., 2012)

Questionnaire

Questionnaires are a data collection method that can come in several forms: *structured* (with closed and multiple-choice questions), *semi-structured* (a mix of closed and open questions), and *unstructured* (with many open questions) (Costley et al., 2010). They can provide quantitative data in pre-determined categories that may make analysis quicker and easier than with qualitative methods (Costley, et al., 2010). The anonymity of respondents in some questionnaires may encourage sharing of data on a wide range of topics, some of which may be sensitive or personal, such as in an anonymous 2017 survey investigating vocal symptoms in perimenopausal and menopausal women that covered a large range of topics, including the personal history, symptoms, and lifestyle of the respondents (Elliott, 2017).

To gather appropriate data that answers the research question, high standards of design are required (Davies and Hughes, 2014). For good questionnaire design the language used should not be ambiguous (Davies and Hughes, 2014). This is an important consideration in the field of vocal pedagogy, where terminology varies and is often contentious or misinterpreted by different participant groups. For the same reason, loaded words and leading questions should be avoided (Costley et al., 2010). As a sole researcher conducting a time and resource-limited work-based project, choosing a questionnaire as a research method would be appropriate to gather a breadth of data, but not data with great depth (Blaxter et al., 2006). To find depth, one would need to look at different research methods, such as interviews.

Interviews

Interviews uncover “feelings, ideas, described experiences, opinions, views, attitudes and perspectives that have a…depth to them” (Davies and Hughes, 2014, p. 180). They are a widely-used method to explore the ambiguities in a phenomenon, as they allow time and space for respondents to explore their own beliefs (Easterby-Smith et al., 2012). The conclusions of

interview research are usually only specific to the sample and context (Davies and Hughes, 2014).

There are different sub-types of research interview:

- *Structured interviews* are usually a predefined list of questions over which the researcher has control, with respondents having control over answers (Davies and Hughes, 2014).
- *Semi-structured interviews* are guided open interviews, where researchers start with key questions that need to be answered, and a framework to guide which lines of questioning to pursue and which to leave (Easterby-Smith et al., 2012).
- *Unstructured interviews,* like open conversations, are commonly used within an ethnographic methodology (Easterby-Smith et al., 2012)
- *Reflexive interpretation* takes account of the researcher's perspective and examines the interaction between researcher and respondent as part of the analysis (Davies and Hughes, 2014).

Conducting a research interview takes a great deal of skill, perception and sensitivity; success depends heavily on developing a trusting relationship between the interviewer and interviewee (Easterby-Smith et al., 2012). The language used must be clear and unambiguous and as free of judgement as possible (Easterby-Smith et al., 2012). Possible disadvantages to interviews need to be mitigated. There is potential for researcher bias both when data is collected and when it is analysed, especially if the researcher is well-acquainted with the topic, because it is common for interviewers to make assumptions about the research findings (Davies and Hughes, 2014), and project their own views or feelings onto the situation (Easterby-Smith et al., 2012). Interviewees may be influenced by the process of the interview itself and experience the *response effect*, where they may modify their answers to fit what they assume the interviewer wants to hear (Costley, et al., 2010). Practically, interviews can be very time-consuming to conduct (Bell, 2010), and because of the abundance of data collected, they can be very time-consuming to analyse and interpret (Costley, et al., 2010).

Observation

Interviews combine well with other qualitative data collection methods like observation (Davies and Hughes, 2014). Observation can generate vast amounts of data (Costley, et al., 2010), either through *participant observation* where the researcher is involved in the research setting, usually with another role in addition to observing, allowing them to become part of the action (Davies and Hughes, 2014), or *non-participant observation,* where the researcher decides what to observe and why (which is usually normal activity), and passively observes it (Davies and Hughes, 2014). The preferred way to collect data through observation is to do so overtly, where

attitudes and opinions of those being observed can be openly discussed (Davies and Hughes, 2014). Covert observation is ethically dubious as those being observed will not have consented to the observation process (Easterby-Smith et al., 2012).

In an educational context, student-teacher interactions, and tasks may be observed (Costley et al., 2010), and digital technology makes the process easier than it may have been historically (Easterby-Smith et al., 2012). One 2010 study analysing the use of gestures in singing teaching chose non-participant observation via camera-recording as the most appropriate method of data collection (Nafisi, 2010). Interviews were inappropriate as the subject matter was deemed beyond accurate recall; a questionnaire was also deemed inappropriate due to the impossibility of using sufficiently unambiguous and meaningful language. Although the researcher was not interfering with the action, she acknowledges that the *observer effect* was likely to have been present, either consciously or unconsciously, where the participants alter their behaviour because they know they are being watched by the camera; this was still deemed preferable to covert observation because of the ethical implications discussed above (Nafisi, 2010).

Observations are not without their potential hazards. In 1999, *inattentional blindness* was illustrated in a landmark study, where almost 50% of people failed to notice a person in a gorilla costume walking across a sports court, having been instructed to count passes between specific players (Simons and Chabris, 1999), demonstrating that one frequently only sees what one is looking for. This is relevant when collecting data collection through observation. The concept of a truly disinterested, independent observer is a myth (Gill and Johnson, 2010), so researchers have to safeguard against letting their own preconceptions influence what they observe (Davies and Hughes, 2014). In an independent work-based research project, access to the sample population can sometimes be hard to negotiate (Costley, et al., 2010) if the researcher needs to go through a gatekeeper. And as with other qualitative data collection methods like interviews, the data generated can be overwhelming and time-consuming to analyse (Costley, et al., 2010).

Ethics and Insider Research

Because research intrudes upon people's lives (Dawson, 2009), ethics must be an ongoing consideration at every stage of the research process (Costley, et al., 2010). In an independent work-based project, most ethical issues will be "incremental and ambiguous" (Easterby-Smith et al., 2012, p. 97), but may be avoided by adopting a code of conduct (Saunders et al., 2012). For research in voice pedagogy, such a code may include the following principles:

- Researcher integrity: committing to being open and accurate, avoiding deception, dishonesty and misrepresentation (Saunders et al., 2012)
- Respecting the dignity of participants (Easterby-Smith et al., 2012), and information they provide (Dawson, 2009)

- Informed consent: providing information about the study's purpose, and what participant involvement entails (Easterby-Smith et al., 2012); making sure participation is voluntary and that participants understand they are free to withdraw at any time (Davies and Hughes, 2014)
- Confidentiality: not sharing information "beyond agreed limits" (Davies and Hughes, 2014 p.44); anonymity - removing names and identifying features for the reader (Davies and Hughes, 2014); Data Protection Act compliance (Saunders et al., 2012)
- Avoiding harm: usually emotional harm or distress if emotional memories are triggered in data collection around sensitive topics; directing participants to appropriate support if required (Davies and Hughes, 2014).

Research is considered to be *insider research* when the researcher is a member of the group or organisation being studied (Saidin, 2016), or shares similar attributes and experiences with the participants (Dwyer and Buckle, 2009). The aim of insider research is usually to make improvements through evaluating practice (Costley, et al., 2010). In the context of my own work-places, this aim would be to improve student outcomes. There are many benefits to insider research, such as the relative ease of negotiating access to participants (Saidin, 2016), and having previous knowledge of the organisation or community within which the research is conducted (Saunders et al., 2012) which helps the researcher relate to participants as they have a deeper awareness of the culture and challenges therein (Saidin, 2016). Even though outcomes from insider research are not usually generalisable, they can be useful to a community of practice and to the individual researcher (Costley, et al., 2010).

Researcher bias is an issue in insider research - subjectivity is unavoidable (Saidin, 2016), as the researcher brings their previous experience and preconceptions to the project (Saunders et al., 2012), which influences the interpretation of data (Saidin, 2016). Confirmation bias is also a risk as the researcher has a vested interest in the research results (Costley et al., 2010). This can be mitigated somewhat by transparency about the researcher's perspective when writing up the report (Costley et al., 2010).

Conclusion

In order to decide which methodologies and methods are appropriate for my work-based learning project investigating improvisation, I would need to revisit the ontological and epistemological positions from the beginning of the assignment, and choose which paradigm they lead to. Because I can accept both the concepts of singular and multiple realities, I believe a pragmatic paradigm would be an ideal starting point for such research. As the project will be work-based, I am unlikely to be sticking to a textbook approach (Costley et al., 2010). Purely quantitative methods would be inappropriate, as it would be too hard to break improvisation down into measurable components. Using qualitative methods would enable me to collect the depth of data that would provide deep insights into the processes, feelings, and opinions that

singers or singing teachers hold about improvisation, but using mixed methods as opposed to purely qualitative methods would provide the additional benefit of investigating wider attitudes towards it across the voice community. A questionnaire using a purposive sample drawn from the voice communities I have insider access to online may be an appropriate first step in such a project, followed by a small number of interviews to delve deeper into the topic based on what the questionnaire reveals, within the limitations of the time available to complete the project.

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