

A Review and Critical Analysis of Qualitative Methodologies and Data-Collection Techniques Used for Code-Switching Research

Daniel Arthur Jones¹
Saint Louis University, USA

ABSTRACT

Code-switching is considered a language contact phenomenon that has long been a subject of scholarly investigation. This paper provides a review of common and nascent qualitative techniques often used to examine code-switching. Such a collection of salient qualitative methodologies could provide researchers with both prevailing and new frameworks and avenues for examining myriad types and aspects of code-switching. Numerous studies are highlighted with summaries of their data collection procedures, analysis techniques, and results. Also included are rationales for applying qualitative approaches to code-switching studies – especially poignant, as a trend to utilizing more experimental research designs have been recently observed regarding language contact phenomena. This paper will also discuss which types of research designs effectively combine techniques of acquiring code-switching data with rigorous approaches to data analysis to render new understandings of code-switching.

KEYWORDS: Code-switching, methodology, data collection, method, qualitative research, linguistics.

This paper will highlight, review, and analyze qualitative research techniques employed to examine code-switching – with a special focus on innovative and emerging techniques utilized by scholars in disparate academic fields. An investigation of myriad research studies will illuminate suitable qualitative techniques and frameworks for studying the phenomenon of code-switching. Although this paper is not a meta-analysis, nor does it cover every scholarly qualitative code-switching study known to exist, oft-employed methodologies and data collection techniques will be described with poignant examples from recent and relevant literature representing a variety of academic fields.

Morse (2015) claimed that reliability and validity determine rigor in qualitative research, which is primarily achieved in the process of data collection and analysis. Therefore, research design, data collection procedures, data analyses, and results will be summarized for each study highlighted in this paper. Additionally, the justification, advantages, and utility of each qualitative methodology and data collection technique will be detailed for contextualization. Furthermore, as reliability and validity are salient to all research (Howell, 2013; Merriam & Tisdell, 2016), such components that help render high levels of reliability and validity will be listed, if they were

¹ Corresponding Author: PhD Candidate in Education Leadership at St. Louis University, USA.
E-Mail: djones113@slu.edu

provided in the studies featured – those components being: triangulation, member-checking, reflexivity (Merriam & Tisdell, 2016), and memoing (Saldaña, 2011).

The purpose of this paper is to provide avenues for researchers to examine code-switching in a multiplicity of arenas through qualitative approaches, providing implications applicable to a wide range of academic sectors. The review of the literature over a variety of qualitative-centered code-switching studies could inform future research directions and help spur innovative, qualitative frameworks to investigate the phenomenon. Moreover, the discussion portion will provide a critical analysis of the qualitative approaches presented here in order to identify strengths and gaps in the code-switching body or research.

Such a collection of qualitative research techniques to examine code-switching has neither been aggregated nor reviewed. A robust explanation for the merits of utilizing qualitative techniques in studying the phenomenon has never been undertaken. Mengmeng (2018) contended that qualitative research designs are better suited to providing greater insight and analysis into societal phenomena as compared to quantitative research. Moreover, data required to investigate code-switching is largely what Polkinghorne (2005) termed “language,” meaning the data are sentences formed into interconnected discourse and generally necessitate qualitative analysis. A more detailed justification of the importance of a qualitative approach to understanding such phenomena as code-switching is outlined in the researching code-switching section. However, to better contextualize the research reviewed in this paper, a brief background of code-switching will first be provided.

Code-Switching: Background and Definition

Code-switching is employed in social interactions and discourse whereby language, or code, is altered for a variety of purposes (Kamwangamalu, 2010) and is considered to be a natural phenomenon (Cheng & Butler, 1989). In *Code-switching*, Gardner-Chloros (2009) explained the term “code” likely stemmed from the field of communication technology but nowadays is an overarching term for languages, dialects, and styles/registers. Thus, code-switching is generally considered an alteration between the different ways people speak (Cheng & Butler, 1989) or write (Sebba et al., 2012) to each other. Heller (1988) acknowledged that although code-switching is just one of several language contact phenomena, it should be viewed as an overarching term for language contact phenomena. Furthermore, types of code-switching, and their relationships to other language contact phenomena, are only discernible by how given communities utilize the phenomena (Heller, 1988). Stated otherwise, code-switching is a superordinate term that can encompass several like-terms and subcategories where people alter language during the communication process for a variety of purposes (Kamwangamalu, 2010). The term itself was first coined by Vogt (1954) in reviewing Weinreich’s (1953) *Language in Contact*; however, Benson (2001) highlighted numerous bilingual studies dating back to the 1930s, which detailed such phenomena as lexical loans and borrowing that today would could be classified as code-switching. In perhaps one of the earliest scholarly investigations on language contact phenomena, what was termed “Sprachmischung,” or language mixing, was addressed by Paul (1886).

It should be noted that several scholars draw distinctions between various language contact phenomena. Poplack and Meechan (1998) and Deuchar (2020) differentiated between code-switching and borrowing, for example. In essence, borrowing is the process of using vocabulary from another language to insert into a primary language, whereas code-switching is generally the use of longer stretches of two languages. This division, and other distinctions among language-mixing phenomena, have been debated for decades (Deuchar, 2020); however, in this paper, only

the term code-switching will be utilized for contact phenomena where an exchange of multiple codes takes place within verbal or written communication.

In the past few decades, scholars have focused considerable attention on why code-switching occurs and how it's produced (Gardner-Chloros, 2009; King & Soto, 2022) resulting in myriad models and approaches. This body of code-switching research has shown that the phenomenon is not employed at random (Kamwangamalu, 2010). Likewise, Hong et al. (2000) claimed that cultural differences are often situational, and people are particularly adept at modifying their behavior to adapt to a situation (Cheng et al., 2007). Hong et al. (2000) also postulated that people have the ability to possess multiple cultural meaning systems concurrently, even if those systems contain contradictory or conflicting constructs. Furthermore, their quasi-experimental study suggested that not only can multiple cultures direct cognition in a person's mind, but a person may control those cognitive effects. In responding to social cues, these cultural systems guide behavior when they come to the foreground of a person's mind and are applied to social events where one may feel judged (Hong et al., 2003). Urban (2012) described this process as engaging in metacognition in order to respond to environmental feedback and facilitate effective adaptation. This metacognition essentially "translates" cognitive inputs into behavior outputs and transfers acquired cognitive knowledge across cultural domains, according to Thomas et al. (2008), and is a core component of cultural intelligence.

Coulmas (2005) considered code-switching to be a macro choice, where speakers have the capacity to choose their code and how they negotiate social norms and meanings, not to mention their willingness to conform, or not conform, to a particular culture. From a psycholinguistic standpoint, the Wei (2009) model described speech production processes and limitations when dealing with multilingual code-switching. According to Wei (2009), lemmas – abstract elements in the mental lexicon that trigger surface formations of speech production (King & Soto, 2022) which have been chosen to be uttered in the early stages of speech production – are language-specific and, in code-switched speech, the initiation and formulation processes for both languages to occur simultaneously.

Stell and Yakpo (2015) cited three primary perspectives of code-switching: linguistic, psycholinguistic, and sociolinguistic. The linguistic perspective is concerned with universal grammar constraints to code-switching. The psycholinguistic perspective is focused on how linguistic systems are stored and accessed in the cognitive system. Lastly, the sociolinguistic perspective examines social motivations behind code-switching. Myers-Scotton (1993) and Molinsky (2007) separated code-switching into two categories: cross-cultural and linguistic. Each form entails changing how one behaves or speaks to another in order to achieve a desired social outcome. Linguistic code-switching involves bilingual speakers alternating between languages in interaction with other bilingual speakers. "Yet whereas linguistic code-switching describes the act of switching from one language to another, cross-cultural code-switching describes the task of moving between culturally ingrained systems of behavior" (Molinsky, 2007, p. 623). Again, for the purposes of clarity in this paper, the term code-switching will be used as an all-encompassing term for altering one's interpersonal behavior or communication.

Researching Code-Switching

Code-switching is an oft-examined subject in linguistics (Carvalho, 2012; Gullberg et al., 2009). As demonstrated in this paper, the phenomenon routinely receives attention in other fields, such as education, cultural studies, business, psychology, and sociology. Although this paper is centered on qualitative inquiry, code-switching frequently undergoes quantitative investigation as well—either experimental or non-experimental (González-Vilbazo et al., 2013). Gullberg et al.

(2009) suggested that the most salient consideration concerning experimental techniques used to study code-switching is not to comprise the phenomenon and allow for natural code-switching; therefore, validity should be ensured through evidence derived from a variety of techniques. Nonetheless, Gullberg et al. (2009) elucidated that myriad experiments can be designed to illicit code-switching to test theories and draw conclusions about when, why, and how it's produced; however, from a qualitative standpoint, researchers seek to better understand the production and use of code-switching through observation, diaries, narrative, recordings, and interviews. Although both quantitative and qualitative methodologies are often combined in mixed method studies surrounding code-switching, this paper is focused on qualitative research as scant information exists summarizing the uses of qualitative inquiry on code-switching.

A. M. Lin (2008) stated that interactional sociolinguistics (IS) and ethnography of communication (EC) provide the most beneficial analytic tools for researching and understanding code-switching in different settings within societies. Buell (2004) seconded this notion by explaining that sociolinguists and ethnographers of communication gravitate to code-switching studies as changes in code signify or index social identities, relationships, and contexts. Gumperz (2005) explained IS as an “approach to discourse analysis that has its origin in the search for replicable methods of qualitative analysis that account for our ability to interpret what participants intend to convey in everyday communicative practice” (p. 215). In describing sociolinguistics, Almelhi (2020) wrote it centers on language use between social classes and from one language to another. Furthermore, sociolinguistics focuses on linguistics and social behaviors of speech communities. In other words, researchers investigate how language among community members is used in unique but mutually understood fashions, which may go beyond the boundaries of the language. It is under this principle that code-switching is considered a sociolinguistic phenomenon.

Hymes (1964) is credited with coining EC and delineating its two fundamental characteristics: (a) the use of language should be studied in the framework of a situation to determine patterns of speech activity, and (b) it “must take as context a community, investigating its communicative habits as a whole, so that any given use of channel and code takes its place as but part of the resources upon which the members of the community draw” (pp. 2-3). Stated otherwise, Hymes (1964) emphasized that ethnography and communication – not linguistics or language – should provide the frame of reference wherein the place of language in culture and society is to be described.

Noy (2017) outlined four dimensions describing EC assumptions which provide a research approach allowing for the ethnographic study of actual communication events in order to better understand the cultural and contextual aspects of the communication. Drawing on the works of Hymes, Noy (2017) summarized: (a) language is an integral part of social life and culture, (b) communication is a vital part of human activities, (c) EC is the preferred methodology for observing and describing naturally occurring interactions and communication, and (d) since the 1980s EC has been applied to communication studies with emphasis on codes used in communication. Didi-Ogren (2020) stated that EC enables researchers to include certain information in analyses, such as the participants’ relationship outside of the analyzed conversation and the communicative norms of the discourse community. Furthermore, EC is important in the study of regional dialects as it includes contextual information on the community of speakers (Didi-Ogren, 2020). Using a sociocultural linguistic approach, Didi-Ogren (2020) applied EC in conjunction with discourse analysis to investigate code-switching between Standard Japanese and the regional Iwate dialect.

In essence, two basic overarching approaches to qualitatively studying code-switching can be found at opposite ends of a spectrum, in which the researcher is either a passive observer or is involved in the communication process. The researcher can either be directly inserted in the study

or may provide stimuli to spur conversation (Wynn & Borrie, 2020). Nonetheless, this paper will not set out to claim one approach is superior; rather, each will be thoroughly delineated for its distinct advantages in providing insight into the phenomenon. A critical discussion of the saliency and quality of qualitative approaches will, however, be provided.

Selected Qualitative Methodologies Used in Code-Switching Research Phenomenology

Advantageous for studying myriad phenomena, a phenomenological approach examines events and their potential meanings (Finlay, 2009). Hauck (2015) argued that language could emerge as a phenomenological object, and Duranti (2009) drew a link between Husserlian phenomenology and language socialization. Both phenomenology and hermeneutical phenomenology are utilized in code-switching research. Although both methodologies share similarities, Lavery (2003) drew a distinction between the two in writing that where phenomenological research works to give form and meaning to life, hermeneutic research is interpretive and focused on the historical meanings of experience and their effects on the person and social strata. Moreover, Lavery (2003) explained that one of the most profound contrasts is the process of self-reflection in which the researcher engages. For phenomenology, self-reflection typically occurs in the preparation phases of research, and for a hermeneutical approach, the researcher does not set aside their biases and assumptions; rather, they embed them into the interpretive process (Lavery, 2003).

Husserl (2002) proclaimed that meaning and conscious experience are paramount to phenomenology, and experience is drawn from first-person accounts, which ascribes meaning to aspects of the experience. Furthermore, Husserl (2002) described intentionality as the essence of consciousness, as it concerns the relationship between subject and object. Howell (2013) summarized Husserl in writing that intentionality leads to an emergence of understanding, thus allowing people to better comprehend the environment in which they live, thereby, fostering robust self-understanding. Recommending a Husserlian approach to educational research, Creely (2018) described Husserl phenomenology as the ability to step back and scrutinize daily experiences and explore their meanings. In contrast to Husserl, Heidegger (2010) argued that meaning is connected to time, and there was not a differentiation between subject and object. Nigar (2020) stated that Heidegger's hermeneutical phenomenology interweaves ontology and epistemology, in which one's own awareness, and the constant interpretations of phenomena, are a constant expectation. Gadamer (2008) went further with Heidegger's hermeneutics by contending a person understands their Being only through the use of language. Gadamer (2008) claimed conversation to be salient to the hermeneutical process as it represents key components to understanding: interaction, creativity, and freedom. Therefore, a hermeneutic phenomenological analysis is often used in studying linguistic phenomena, such as code-switching, since the methodology focuses on the lived or personal experience of the participants from their points of view (Kafle, 2013). With such an emphasis on personal experience, the participant voices in the study are decolonized and can break through historically oppressive structures (VanLeeuwen et al., 2017).

Rincón and Hollis (2020) employed a hermeneutical approach in their phenomenological analysis to elucidate individual perceptions of code-switching as a means of developing persistence and maintaining cultural pride among 12 Chicana/o students who earned a baccalaureate degree at a majority school in Colorado. Interview candidates were selected for the sample from 13 four-year institutions utilizing non-probability, purposive, and snowballing techniques. Interviews were conducted until data saturation was achieved. The interviews were face-to-face, averaged an hour, and used a predetermined interview script. It should be noted the lead researcher was a Chicana woman, which likely enhanced the rapport between researchers and participants. The 12 interviews

were analyzed using NVivo to help transfer transcripts to themes. The researchers involved the interviewees in member-checking and in reviewing their interview transcripts.

On Leedy and Ormrods' (2010) recommendations, Rincón and Hollis (2020) derived units of meaning from the data to reflect facets of code-switching within students' persistence as experienced by the interviewees. The research process then included an investigation of deviating perspectives, and themes were formulated regarding student persistence. The hermeneutical phenomenological process rendered four themes then yielded four ensuing recommendations: (a) family support, (b) sense of belonging, (c) belief in a better quality of life and family values, (d) and code-switching behaviors. The participants largely viewed code-switching as a means to maintain cultural identity in a majority community, all the while building their persistence to graduate.

Wright et al. (2022) used a phenomenological design to gauge Black/White multiracial college students' sense of belonging at a predominately White institution (PWI), whereby chronic code-switching was heavily relied upon. Ninety-minute, semi-structured interviews via video conference were conducted with eleven students. The participants were chosen through purposive sampling, and interviews were manually transcribed. In vivo and pattern coding rendered categories, and meta-themes and data were analyzed through a Critical Mixed Race Studies (CMRS) perspective. Transcripts were shared with participants, and the researchers engaged in memoing. Wright et al. (2022) reported that all participants constantly felt the need to adjust their personality or appearance to identify with the people around them and navigate their environments. In this sense, what Wright et al. (2022) described and termed chronic codeswitching is similar to the cross-cultural code-switching (Molinsky, 2007) mentioned in the background portion of this paper.

Ethnography

Effective ethnographic approaches to language research, multilingualism, and sociolinguistics are diverse and ever-evolving (Martin-Jones & Martin, 2017). Equally diverse is the terminology for the types of ethnographic research used to investigate multilingualism (Martin-Jones & Martin, 2017), several of which will be highlighted in this section. Campbell and Lassiter (2015) regarded ethnography as a form of storytelling informed by ethnographic theory and method, which is ever-changing and emergent. Madison (2012) recommended post-critical ethnography, where not only is the researcher ethically minded, but a dissolution should exist between the barriers of the researcher and participants, as each party is responsible for producing knowledge. Ultimately, according to Madison (2012), the goal of any ethnography is to learn about the empirical world of other people.

Buell (2004) suggested ethnographic methods to investigate written code-switching by garnering information from the participants to contextualize their written outputs and explain their motivations and purposes. Ethnographically-informed methodologies are similarly recommended to complete online code-switching studies as they allow researchers to reconsider the meaning of texts and how and why those texts are produced in authentic contexts (Barton & Lee, 2017). Regarding methodological approaches, it should be noted that texts and people's practices should not be considered the singular point of departure in research; therefore, Barton and Lee (2017) recommended analyzing the interplay between what is visible onscreen and how people actually use the languages online.

De Socarraz-Novoa (2015) used the pragmatic iterative approach to analyze data from observations and ethnographic interviews. Tracy (2013) first coined the approach, which combines emic and etic interpretations, whereby the researcher takes into account how their background may

influence data collection and analysis, coupled with the acknowledgment of participant perspectives. De Socarraz-Novoa (2015) studied six participants in multilingual workplaces and identified three principal meanings of code-switching within their speech community: (a) face-saving, (b) expression of raw emotion, and (c) compartmentalization of work and private life. Such an ethnographic approach to studying the use of language contact phenomenon among a few individuals within a case study allows for an in-depth understanding of sociolinguistic factors but requires the researcher to gain an extensive understanding of each participant's background (Azad & Ali, 2017).

Ahmad and Widén (2018) posited longitudinal ethnography as a useful methodology to examine code-switching as it provides a suitable framework to evaluate the environment in its natural form over an extended period of time. Furthermore, they suggest ethnographic studies consist of recorded conversations, interviews, and sociometric questionnaires. Starks and Lee (2010) recommended language diaries, and ethnographic recordings of daily interactions to study language use. The authors identified four domains in which language diaries have advantages over self-reporting surveys that have been traditionally utilized in studying community language use. In summary, language diaries have the potential to provide greater insight into the frequency and extent of language use in a variety of contexts. Additionally, the open-endedness of diaries may capture data that wouldn't have been addressed on a survey and are highly useful when investigating code-mixing. Starks and Lee (2010) also posited that language diaries are well-suited for pilot studies that should inform in-depth ethnographic examinations.

Case Study

Duff (2014) asserted case study research and methodology are important to studying applied linguistics and phenomena, such as code-switching, that are being scrutinized within the structure of the case-in-context and against existing theory and research. Case study research works to thoroughly document and explore all aspects of the phenomenon under investigation. Duff (2014) further explained the saliency of investigating the interplay of linguistic, social, cultural, political, and affective dimensions of experience and performance. Thus, researchers often design a case study incorporating myriad qualitative methodologies and data collection techniques, and sometimes mixed methods coupled with quantitative strands. Duff (2014) explained that triangulation, through the convergence of multiple data sources, can enhance a qualitative case study by creating new vantage points upon which to consider the phenomenon in question.

Baoueb (2009) completed a case study in which data were collected through recorded conversations, observations, interviews, and questionnaires. Baoueb (2009) investigated the social factors involved in code-switching in Tunisian business environments. Two businesses, one large and one small, were selected for the study, both including participants who work in professional capacities and routinely communicate with clients. The researcher performed observations, recorded informal business interactions, and participants engaged in interviews and completed questionnaires. To investigate the validity, the accrued data were compared to previous findings on code-switching. Baoueb (2009) concluded that the case study, albeit with only two companies, provided valuable insight into Tunisian business linguistic behavior and social motivations for code-switching therein.

In another case study examining instructional code-switching and cultural congruency between an African American teacher and learners, McIntyre (2013) implemented only qualitative methods: observations, interviews, and audio recordings. McIntyre (2013) sought to better understand how teachers and students achieved in a culturally congruent setting. In other words, the human condition in a naturalist setting was to be analyzed through such a qualitative case study

to generate a grounded theory. Data were collected through audio-recorded observations, structured and open-ended interviews—immediate and exit interviews, and field notes. McIntyre (2013) also emphasized the importance of population limitations in a qualitative case study as it defines limits and controls outside variation. In this particular case study, participants were limited to cultural background, education experiences, and schooling.

In analyzing data, McIntyre (2013) employed Fairclough's (2010) descriptive-interpretive technique with an explanatory research approach. This systematic process of analysis was designed to generate grounded theory – a theory of instructional code-switching. To be specific, a comparative analysis was conducted comparing the narratives of the teacher to those of the students in order to make sense of the data. Themes emerged from the constant comparison of interviews, observations, and field notes. The themes were then verified and triangulated, which allowed the findings to be generalized. The findings of this study showed that both cultural congruence and incongruence exist between the African American teacher and students across participation structures. McIntyre (2013) reported that the Theory of Instructional Code Switching is supported in that students who engage from a familiar instructional code have an elevated chance of achieving mutual understanding through social interactions and engrossing activities. Moreover, learning goes beyond a process; in the study, it is about access and connection.

In a case study where perceptions of code-switching were investigated among two U.S. students taking a distance learning course in preparation for study abroad in Japan, Zimmerman (2019) utilized audio recordings, journaling, and artifact analysis. Operating in Japanese, the two participants recorded their conversations with interlocutors, wrote journal entries, and submitted written analyses and reflections. It should be noted that the interlocutors were native Japanese speakers. After the semester, the researcher transcribed and reviewed the data, took field notes, and began creating codes. Zimmerman (2019) reported employing ethnographic practices by engaging with participants by providing responses to their journal entries and assignments and through follow-up interviews. A salient recommendation from the data analysis is to educate language learners about code-switching, among other common linguistic practices.

Grounded Theory

Dey (1999) purported grounded theory to be partly responsible for a shift to greater reflexivity and rigor in qualitative research due to its emphasis on explicit coding and systematic comparison. McCallin (2003) proclaimed grounded theory to be a useful methodology for revealing underlying social processes that shape interactions and for generating knowledge about the behavioral patterns of groups. Similarly, Hadley (2020) wrote that grounded theory aims to develop explanatory theories of social phenomena through iterative procedures. In the field of linguistics, Hadley (2020) claimed scholarly use of grounded theory has often been misrepresented or misapplied; yet it carries great potential for linguistic researchers who are typically multilingual and multicultural. Furthermore, Hadley (2020) provided that a quality grounded theory contains a core category and delivers pragmatic applications for people operating within a given social environment. Gales (2003) also concluded that grounded theory is well suited for cross-cultural research in general, especially where behaviors and events are facilitated by language. Plöger and Barakos (2021) touted Reflexive Grounded Theory (RGT) as an important technique in completing research with people transitioning into an unfamiliar linguistic environment, such as students studying abroad. RGT invites introspection about the researcher's own views on language and multilingualism (Plöger & Barakos, 2021).

Merriam and Tisdell (2016) asserted that the constant comparative approach to data analysis, as developed by Glaser and Strauss (1967), yields grounded theory. Such an approach to data analysis is often utilized in qualitative studies examining code-switching. For example, when Khoumssi (2020) employed a qualitative online ethnography to study code-switching within Facebook comments among young Morrocans, the functions of code-switching were analyzed through grounded theory. Charmaz and Mitchell (2001) suggested that ethnographers apply grounded theory to increase analytic acerbity. In two other examples, Goldbarg (2009) used grounded theory to code email excerpts in a study analyzing the use of code-switching in email communication among Latino bilinguals, and Pham (2015) applied a constant comparative approach to analyze data generated in a study concerning students' perceptions of tertiary level teachers' code-switching practices in Vietnam.

Shafie and Nayan (2013) examined the code-switching practices of multilingual university students in their Facebook wall posts and comments. One hundred Malay students submitted their wall posts for analysis. The authors applied a computer-mediated discourse analysis, which they claim to be derived from Glaser and Strauss' (1967) constant comparative model. Five thousand wall posts and nearly twenty thousand comments were analyzed, revealing that students code-switch to maintain and create online relationships.

Selected Qualitative Data Collection Techniques Used in Code-Switching Research Interviews

Talmy (2010) reported that interviewing has been used for decades in empirical research, especially in the social sciences, and highlighted two contrasting conceptualizations of the research interview as it pertains to applied linguistics: (a) interviews as a research instrument and (b) research interviews as social practice. Pavlenko (2007) stated that interviews as a research instrument can be used in conjunction with case studies, ethnographic research, and narrative research, whereby data are reported, but power can shape discourse, and voices could be obscured. Furthermore, the content analysis may just produce a list of observations, factors, or categories, highlighted by quotes from participants, which do not fully address the connections between the categories and fail to describe the larger picture in which they may fit (Pavlenko, 2007).

To draw a distinction, Talmy (2010) wrote that research interviews as social practice view the interview process not as a means for gathering data from a respondent but rather as a place and time for the investigation itself. Talmy (2010) further explained: (a) data are considered phenomena produced by all involved parties, (b) a reflexive orientation to the process of knowledge collection and data generation exists, and (c) the "how" is analyzed in addition to the "what." Talmy (2010) concluded that not all interviews have to necessarily follow the social practice guidelines, but adhering to such social practices provides greater benefits for qualitative interviews. Also concerning these two and any other qualitative interview conceptualizations, Roulston (2010) and Freeman et al. (2007) wrote that researchers must consider these theoretical stances: (a) designing interview studies, (b) interpreting and presenting findings, and (c) demonstrating quality.

Gallagher's (2020) study concerning English as a foreign language (EFL) teachers' view of the classroom as a bilingual space and code-switching in shared L1 and in multilingual contexts relied on interviews for data collection. Based on the findings, Gallagher (2020) recommended shifting the foreign language classroom away from a monolingual philosophy and revisiting bilingual practices such as code-switching. For this study, 24 EFL teachers in Dublin underwent semi-structured interviews. The interviews consisted of five sets of open-ended questions, and each interview was about an hour. After transcription, the data were coded and analyzed using thematic analysis procedures (Braun & Clarke, 2006) to identify key issues and recurring themes. The

transcriptions were read to tag each item to create initial codes manually. NVivo software was used to have the entire data set systematically collated and categorized across the codes. The codes were then subdivided and refined, suggested by Braun and Clarke (2006). Transcripts were then reread to ensure the codes accurately reflected what the interview participants had expressed. The data in each code was then reviewed and analyzed in order to identify transcendent themes in relation to the original research questions. Gallagher (2020) also used a 15-point checklist for criteria of quality thematic analysis (Braun & Clarke, 2006), which helps to ensure trustworthiness. Under the results section, Gallagher (2020) lists several salient themes that were products of the data analysis process.

Audio and Video Recordings

A key component of the interview process is recording data from the sessions. Ortiz (2016) suggested recording interviews whenever possible, as it's nearly impossible to write detailed notes on everything that transpires. Field notes should be taken in addition to an audio or video recording, however, as they often better describe the context, non-verbal communication, and emotion – which are invaluable data after the transcription process (Parameswaran et al., 2020). Parameswaran et al. (2020) recommended that if a researcher chooses to engage in live coding, an audio recording allows one to code for paralinguistic behavior such as tone, rate of speech, and intonation. Additionally, video recordings allow the researcher to code non-verbal cues such as gestures and head nodding (Parameswaran et al., 2020).

It should also be noted that the voice of the interviewees can often lose meaning through the interpretation by the transcriber or voice recognition and transcription software; therefore, having a recording of the proceedings is a valuable tool (Matheson, 2007). On the contrary, recording equipment can have an adverse effect on interview participants, as Al-Yateem (2012) reported that interviewees were more formal, less at ease, and less willing to be conversational during recorded interviews. Al-Yateem (2012) also mentioned the Hawthorne Effect, where participants in a study purposefully change behavior and “social desirability bias,” which is when interviewees frame responses to provide the information they think others may want to hear or to put themselves in a more favorable light. Al-Yateem (2012) suggested that building trust and rapport with participants helps to alleviate such issues and ensure quality interview data.

Dahmen (2022) used lapel microphones and high-definition cameras to record interactions for a qualitative analysis of bilingual speech in natural conversation. Two hours and thirty minutes of transcribed recordings were used to study code-switching in natural conversations between family and friends in the Yaruman community of Western Australia. The recordings stem from a body of video-recorded casual interactions among people who identify as Jaru. The two languages studied were Jaru, which is endangered, and the creole language Kriol. The researcher would set up recording equipment in area communities and was left on for an hour at a time before being moved to another area. No instruction was given to participants to elicit authentic interactions. ELAN computer software was used to help transcribe the conversations. Dahmen's (2022) findings indicate bilingual Jaru-Kriol speakers definitely code-switch when conversing with younger generations, using far more Kriol.

In studying recorded utterances from thesis examination students in a graduate program of English at an Indonesian university, Hanafiah et al. (2021) identified eleven functions for the use of code-switching: entertainment, translating, emphasizing, making an inference, clarifying, explaining, asking, checking for understanding, providing feedback, discussion, and repetition. Although the use of English is the rule in this program, students code-switched to ensure continuity and smoothness during conversations. Hanafiah et al. (2021) also concluded intra-sentential code-

switching to be a dominant form in that participants inserted Indonesian words into English sentences. The researchers gained permission to video record thesis presentation sessions and observed presentational and interpersonal communication.

Combination of Qualitative Approaches

Abdalla et al. (2018) purported that graduate research programs often prepare students to utilize a single method or methodological approaches, and rarely do they prepare students to combine methods even though such combinations are vital to the triangulation often sought to bolster reliability and trustworthiness. Denzin (1978) wrote that triangulation was a combination of study methods for the same phenomenon, and Maxwell (2012) stated that triangulation often yields more credible conclusions. Abdalla et al. (2018) explained that the most applied type of triangulation is methodological, which refers to the use of multiple methods to gather more complete and detailed data about a phenomenon. For example, in the qualitative realm, researchers may combine interviews and observation to better understand a given reality – this combination is especially useful in leadership studies as it allows for a better understanding of effectiveness and behavior among scrutinized leaders (Abdalla et al., 2018).

In combining diary entries with interviews, Wang et al. (2018) examined the use of code-switching in searching on internet web browsers. Their purpose was to explore how multilingual web users interacted with information to navigate basic needs online. Specifically, they sought to better understand the search behavior among Chinese speakers who spoke English as a second language in the information-seeking process. For three weeks, the participants were asked to record their search code-switching usage. After this timeframe, each participant was interviewed about their usage. Every week, researchers reviewed their diaries to ensure data were being recorded. The researchers would also discuss the diary entries with the participants to gather ancillary data. During the interview process, researchers observed the participants completing internet searches in natural environments where one may be on the internet, such as a home or office. Data were collected by taking field notes, pictures of the participants at work, and audio recordings. After transcription and axial coding, the constant comparative method was employed to identify emerging concepts and categories. The results showed that the participants utilized code-switching daily or at least four times a week when seeking a wide variety of information. Both situational and metaphorical code-switching was observed throughout the study. For situational, a participant would change from one language to the other because the search topic needed a language change to achieve the desired results. Metaphorical code-switching occurred when participants altered their attitudes and emotions when performing searches. They would express attitudes and emotional changes using different languages best suited to the social and cultural context.

Z. Lin (2012) combined observation, interviews, written commentary, and reflections when investigating teacher-mediated code-switching in a kindergarten foreign language classroom in China. Three classes of approximately thirty students participated in the study, where students participated in playing Simon Says. Serving as a primary data source, the children's physical responses during the games were recorded and described in narratives after axial coding. The researchers then followed up with group interviews, teacher reflections, and staff meeting observations as secondary sources. Z. Lin (2012) cited the advantage of this approach was that it provided an opportunity to study behavior in its natural setting and discover paradigms that affect mediation processes. Z. Lin's (2012) conclusion was that in a foreign language classroom, the target language should be primarily utilized; however, switching to the students' first language is needed on occasion and will not harm the second language acquisition process.

Discussion

Code-switching has attracted scholarly attention for decades (Almelhi, 2020), and qualitative methods and methodologies have comprised a large portion of the research examining the phenomenon. Several studies also take a mixed methods approach where qualitative and survey data, or inferential methods, are combined as a form of triangulation (Abdalla et al., 2018). As code-switching is considered a cultural and linguistic phenomenon, a plethora of research approaches can be applied to better understand it; however, Gullberg et al. (2009) concluded that although there are limitations to purely naturalistic data, “experiments can never fully replicate or replace observation of naturalistic code-switching” (p. 39). Therefore, experimental designs should seek to be validated against naturally occurring code-switching (Gullberg et al., 2009), which is indeed suggested by Muysken (2004), who advised that recorded spontaneous speech, and quality experimental results, are the most desirable techniques to examine language contact phenomenon. In other words, qualitative approaches help to augment results from hypothesis testing involving code-switching, a research arena that has been burgeoning of late (Koronkiewicz & Ebert, 2018) and will likely continue as scholars work to understand the underpinnings of language contact phenomena.

Wynn and Borrie (2020) emphasized the importance of carefully selecting a methodology when undertaking conversational entrainment research, as different approaches may result in disparate outcomes, a research topic that has thus far received scant attention. Wynn and Borrie (2020) further stressed that achieving trustworthiness may hinge on how well a methodology is understood and justified when designing a study. If the goal is to either produce or observe code-switching or a facet thereof, then a researcher needs to be well-versed in effective methodologies to potentially capture desired data.

Onwuegbuzie and Leech (2007) listed legitimization as a salient goal for any qualitative research, which refers to the trustworthiness, credibility, dependability, confirmability, and/or transferability of any inferences espoused. Onwuegbuzie and Leech (2004) noted that a dearth of legitimization often occurs due to inadequate qualitative data analysis. Against this backdrop, and regardless of the methodological approach with accompanying data collection techniques, multiple data analyses are suggested for individual qualitative studies. Achieving triangulation through layering multiple qualitative data analysis techniques generally increases rigor and representation (Leech & Onwuegbuzie, 2007). Using this framework will aid in assessing the quality of qualitative research designs and their subsequent findings and should be under consideration by those who aim to examine language contact phenomena qualitatively.

In order to achieve the desired level of validity and reliability, and based on the information summarized in this paper, researchers should consider approaches to investigating code-switching that involve multiple qualitative analytical techniques, either through combining methodologies or employing a case-study design with multiple data collection techniques. As previously described, the ability to triangulate data increases credibility and internal validity (Merriam & Tisdell, 2016). Member-checking and researcher reflexivity help to ensure credibility or internal validity (Howell, 2013; Merriam & Tisdell, 2016). It should be noted that most of the studies highlighted in this paper do not contain specific mention of member-checking or reflexivity. Although it cannot be assumed that the majority of qualitative studies addressing code-switching are missing these components, López-Zerón et al. (2021) claimed that such details are often missing from published studies overall. Therefore, it is suggested that researchers not only incorporate such strategies to bring about high levels of validity and reliability but also thoroughly describe these strategies in their published articles (Motulsky, 2021). López-Zerón et al. (2021) emphasized the importance of member-checking when conducting research with multilingual participants, as the researchers may

not have the skills or backgrounds to analyze data in disparate languages with a culturally responsive approach.

Looking Ahead in Code-Switching Research

Regarding the future direction of code-switching research, King and Soto (2022) recommended studying aspects of code-switching using augmentative and alternative communication (AAC), which is the use of communication methods or devices that assist individuals with disabilities more effectively speak and write. The authors recommend researching the macro and micro-level factors that affect code-switching choices among AAC users. Specifically, both analysis of synchronic interactions and conversational analysis could be salient qualitative approaches. Deuchar (2020) listed three critical issues that code-switching researchers need to consider moving forward. First off, code-switching and borrowing need to be better differentiated. Secondly, competing theoretical frameworks should undergo more empirical testing and, thirdly, codify a more robust understanding of the degree of variability versus uniformity in code-switching across groups. Furthermore, Deuchar (2020) advised researchers to evaluate the relative role of external and internal factors in addition to community norms.

Kootstra (2015) wrote extensively on potential code-switching research avenues moving forward, suggesting studies should examine cross-language activation processes at levels beyond the lexical and syntactic, such as the phonetic level. Kootstra (2015) also proposed that researchers investigate the role of participants' daily language usage to foster a better understanding of whether study-participants code-switch on a regular basis and to what extent they are aware of their code-switching habits and behaviors. These questions would, in part, require qualitative techniques to acquire such data.

With the rising worldwide popularity of social media, the last several years have ushered in numerous studies of code-switching on popular social media platforms (Gambäck & Das, 2016), two Facebook-related studies have already been highlighted in this paper. Ting and Yeo (2019) reported that relatively little is known about code-switching in social media, and it will likely be a burgeoning subject of examination in the future. Code-switching has even been investigated in podcasting, as seen in Bratcher and Cabosky's (2022) study, in which code-switching was analyzed among politicians in podcasts before the 2020 U.S. General Election. Additionally, numerous code-switching data sets are now available for researchers to analyze; Aguilar et al. (2020) evaluated Natural Language Production (NLP) computer programs that assist in this endeavor. Nguyen et al. (2022), however, raised the concern that there isn't an established standard for collecting and labeling code-switching data. Furthermore, they propose that a level of human judgment be involved in analyzing code-switching data sets with NLP technologies.

Conclusion

The qualitative approaches highlighted in this paper provide a bevy of designs and techniques researchers have employed to add to a growing body of literature surrounding code-switching. It's been well established that language contact phenomena has undergone scholarly scrutiny since perhaps the 19th century, yet as the world becomes more plurilingual (Christiansen, 2015), and through advancing technologies and greater availability of online data sets (Jose et al., 2020), there is an expansive opportunity for researchers to continue investigating all facets of code-switching. To this end, it can be suggested that grounded theory has perhaps, to this point, been underutilized in qualitative code-switching research. Additionally, an area for further investigation,

which is not addressed in this paper, is an overview of how narrative analysis may be applied to written code-switching.

This study also illuminates the paucity of techniques used to promote high levels of validity and reliability in qualitative research designs surrounding language contact phenomena. In addition, the importance of achieving triangulation through layering multiple analytical techniques has also been emphasized, as well as the consideration of adding qualitative analysis to experimental code-switching research. Nevertheless, the qualitative studies and research designs highlighted in this paper will no doubt continue to be refined and utilized in various academic fields where code-switching occurs. It is hoped this paper will lend direction for code-switching researchers wishing to examine and challenge both new and existing frameworks and qualitative research approaches.

References

- Abdalla, M. M., Oliveira, L. G. L., Zevedo, C. E. F., & Gonzalez, R. K. (2018). Quality in qualitative organizational research: Types of triangulation as a methodological alternative. *RAEP*, *19*(1), 66–98. <https://doi.org/10.13058/raep.2018.v19n1.578>
- Aguilar, G., Kar, S., & Solorio, T. (2020). LinCE: A centralized benchmark for linguistic code-switching evaluation. *Lince Dataset*, *14*(1), 22–43. <https://doi.org/10.48550/arXiv.2005.04322>
- Ahmad, F., & Widén, G. (2018). Knowledge sharing and language diversity in organisations: Influence of code switching and convergence. *European Journal of International Management*, *12*(4), 351–373. <https://doi.org/10.1504/ejim.2018.10012418>
- Al-Yateem, N. (2012). The effect of interview recording on quality of data obtained: a methodological reflection. *Nurse Researcher*, *19*(4), 31–35. <https://doi.org/10.7748/nr2012.07.19.4.31.c9222>
- Almelhi, A. M. (2020). Understanding code-switching from a sociolinguistic perspective: A meta-analysis. *International Journal of Language and Linguistics*, *8*(1), 34–45. <https://doi.org/10.11648/j.ijll.20200801.15>
- Azad, M. N. H., & Ali, M. M. (2017). Code-switching: An ethnographic case study of four British-Bangladeshi bilinguals. *Language in India*, *17*(5), 24–35.
- Baoueb, L. B. (2009). Social factors for code-switching in Tunisian business companies: A case study. *Multilingua: Journal of Cross-Cultural and Interlanguage Communication*, *28*(4), 425–458. <https://doi.org/10.1515/mult.2009.019>
- Barton, D., & Lee, C. (2017). Methodologies for researching multilingual online texts and practices. In M. Martin-Jones & D. Martin (Eds.), *Researching multilingualism: Critical and ethnographic perspectives* (pp. 141–154). Routledge.
- Benson, E. J. (2001). The neglected early history of codeswitching research in the United States. *Language & Communication*, *21*(1), 23–36. [https://doi.org/10.1016/s0271-5309\(00\)00012-4](https://doi.org/10.1016/s0271-5309(00)00012-4)
- Bratcher, T. R., & Cabosky, J. (2022). Code-switching candidates: Strategic communication, podcasts, and cultural and racial politics. *Atlantic Journal of Communication*, 1–15. <https://doi.org/10.1080/15456870.2022.2101650>
- Braun, V., & Clarke, V. (2006, January 1). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Buell, M. Z. (2004). Code-switching and second language writing: How multiple codes are combined in a text. In C. Bazerman & P. A. Prior (Eds.), *What writing does and how it does it: An introduction to analyzing texts and textual practices* (pp. 97–122). Routledge.

- Campbell, E., & Lassiter, L. E. (2015). *Doing ethnography today: Theories, methods, exercises*. Wiley-Blackwell.
- Carvalho, A. M. (2012). Code-switching: From theoretical to pedagogical considerations. In S. M. Beaudrie, & M. Fairclough (Eds.), *Spanish as a heritage language in the United States: The state of the field* (pp. 139–157). Georgetown University Press.
- Charmaz, K., & Mitchell, R. (2001). Grounded theory in ethnography. In P. Atkinson, A. Coffey, S. Delamont, J. Lofland, & L. Lofland (Eds.), *Handbook of ethnography* (pp. 160–174). Sage.
- Cheng, L., & Butler, K. (1989). Code-switching: A natural phenomenon vs language ‘deficiency.’ *World Englishes*, 8(3), 293–309. <https://doi.org/10.1111/j.1467-971x.1989.tb00670.x>
- Christiansen, T. W. (2015). The rise of English as the global lingua franca. Is the world heading towards greater monolingualism or new forms of plurilingualism? *Lingue e Linguaggi*, 15, 129–154. <https://doi.org/10.1285/i22390359v15p129>
- Coulmas, F. (2005). Changing language regimes in globalizing environments. *International Journal of the Sociology of Language*, 2005(175-176), 3–16. <https://doi.org/10.1515/ijsl.2005.2005.175-176.3>
- Creely, E. (2018). “Understanding things from within:” A Husserlian phenomenological approach to doing educational research and inquiring about learning. *International Journal of Research & Method in Education*, 41(1), 104–122. <https://doi.org/10.1080/1743727X.2016.1182482>
- Dahmen, J. (2022). Bilingual speech in Jaru–Kriol conversations: Codeswitching, codemixing, and grammatical fusion. *International Journal of Bilingualism*, 26(2), 198–226. <https://doi.org.ezp.slu.edu/10.1177/13670069211036925>
- De Socarraz-Novoa, A. (2015). Code-switching in a multilingual workplace. *Journal for Undergraduate Ethnography*, 5(1), 1–8. <https://doi.org/10.15273/jue.v5i1.8261>
- Denzin, N. (1978). *The research act: A theoretical introduction to sociological methods* (2nd ed.). McGraw-Hill.
- Deuchar, M. (2020). Code-switching in linguistics: A position paper. *Languages*, 5(2), 1–19. <https://doi.org/10.3390/languages5020022>
- Dey, I. (1999). *Grounding grounded theory: Guidelines for qualitative inquiry*. Academic Press.
- Didi-Ogren, H. H. K. (2020). Sociocultural linguistic approaches to code switching in Japanese women’s talk in interaction: Region, gender, and language. *Multilingua*, 39(6), 685–720. <https://doi.org/10.1515/multi-2018-0096>
- Duff, P. A. (2014). Case study research on language learning and use. *Annual Review of Applied Linguistics*, 34, 233–255. <https://doi.org/10.1017/S0267190514000051>
- Duranti, A. (2009). The relevance of Husserl’s theory to language socialization. *Journal of Linguistic Anthropology*, 19(2), 205–226. <https://doi.org/10.1111/j.1548-1395.2009.01031.x>
- Fairclough, N. (2010) *Critical discourse analysis: Study of language* (2nd ed.). Pearson ESL.
- Finlay, L. (2009). Exploring lived experience: Principles and practice of phenomenological research. *International Journal of Therapy and Rehabilitation*, 16(9), 474–481. <https://doi.org/10.12968/ijtr.2009.16.9.43765>
- Freeman, M. (2007). Performing the event of understanding in hermeneutic conversations with narrative texts. *Qualitative Inquiry*, 13(7), 925–944. <https://doi.org/10.1177/1077800407304463>
- Gadamer, H.-G. (2008). *Philosophical hermeneutics*. (D. E. Linge, Trans.). University of California Press.

- Gales, L. M. (2003). Linguistic sensitivity in cross-cultural organisational research: Positivist/post-positivist and grounded theory approaches. *Language and Intercultural Communication*, 3(2), 131–140. <https://doi.org/10.1080/14708470308668097>
- Gallagher, F. (2020). Considered in context: EFL teachers' views on the classroom as a bilingual space and codeswitching in shared-L1 and in multilingual contexts. *System*, 91, Article 102262. <https://doi.org/10.1016/j.system.2020.102262>
- Gardner-Chloros, P. (2009). *Code-switching*. Cambridge University Press.
- Glaser, B. G. & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine.
- González-Vilbazo, K., Bartlett, L., Downey, S., Ebert, S., Heil, J., Hoot, B., Koronkiewicz, B., & Ramos, S. (2013). Methodological considerations in code-switching research. *Studies in Hispanic and Lusophone Linguistics*, 6(1), 119–138. <https://doi.org/10.1515/shll-2013-1143>
- Gullberg, M., Indefrey, P., & Muysken, P. (2009). Research techniques for the study of code-switching. In B. E. Bullock & A. J. Toribio (Eds.), *Cambridge handbook of linguistic code-switching* (pp. 21–39). Cambridge University Press.
- Gumperz, J. J. (2005). Interactional sociolinguistics: A personal perspective. In D. Schiffrin, H. E. Hamilton, & D. Tannen (Eds.), *The handbook of discourse analysis* (pp. 215–228). Wiley Blackwell.
- Hadley, G. (2020). Grounded theory method. In J. McKinley & H. Rose (Eds.), *Routledge handbook of research methods in applied linguistics*. Routledge.
- Hanafiah, R., Mono, U., & Yusuf, M. (2021). Code-switching in lecturer-students' interaction in thesis examination: A case study in Indonesia. *International Journal of Instruction*, 14(1), 445–458. <https://doi-org.ezp.slu.edu/10.29333/iji.2021.14126a>
- Hauck, J. D. (2015). Language mixing and metalinguistic awareness of Aché children. In *Proceedings of the 23rd Annual Symposium about Language and Society-Austin* (Vol. 58, pp. 40–49). Texas Linguistics Forum.
- Heidegger, M. (2010). *Being and time*. (J. Stambaugh, Trans.). State University of New York Press.
- Heller, M. (1988). Introduction. In *Codeswitching: Anthropological and sociolinguistic perspectives*. Mouton de Gruyter.
- Hong, Y., Benet-Martinez, V., Chiu, C., & Morris, M. W. (2003). Boundaries of cultural influence. *Journal of Cross-Cultural Psychology*, 34(4), 453–464. <https://doi.org/10.1177/0022022103034004005>
- Hong, Y., Morris, M. W., Chiu, C., & Benet-Martínez, V. (2000). Multicultural minds: A Dynamic Constructivist approach to culture and cognition. *American Psychologist*, 55(7), 709–720. <https://doi.org/10.1037/0003-066x.55.7.709>
- Howell, K. E. (2013). *An introduction to the philosophy of methodology*. SAGE Publications.
- Husserl, E. (2002). *Ideas: General introduction to pure phenomenology*. (W. R. B. Gibson, Trans.). Routledge.
- Hymes, D. (1964). Introduction: Toward Ethnographies of Communication. *American Anthropologist*, 66(6), 1–34. <https://www.jstor.org/stable/668159>
- Jose, N., Chakravarthi, B. R., Suryawanshi, S., Sherly, E., & McCrae, J. P. (2020). A survey of current datasets for code-switching research. *2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS)*. <https://doi.org/10.1109/icaccs48705.2020.9074205>
- Kafle, N. P. (2013). Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal*, 5(1), 181–200. <https://doi.org/10.3126/bodhi.v5i1.8053>

- Kamwangamalu, N. M. (2010). Multilingualism and codeswitching in education. In N. H. Hornberger & S. L. McKay (Eds.), *Sociolinguistics and language education* (pp. 116–142). Multilingual Matters.
- Khoumssi, K. (2020). Attitudes of young Moroccans towards the use of code-switching in their facebook interactions. *Journal of English Language Teaching and Linguistics*, 5(3), 469–493. <https://doi.org/10.21462/jeltl.v5i3.417>
- King, M. R., & Soto, G. (2022). Code-switching using aided AAC: toward an integrated theoretical framework. *AAC: Augmentative & Alternative Communication*, 38(1), 67–76. <https://doi.org/10.1080/07434618.2022.2051603>
- Kootstra, G. J. (2015). A psycholinguistic perspective on code-switching: Lexical, structural, and socio-interactive processes. In G. Stell & K. Yakpo (Eds.), *Code-switching between structural and sociolinguistic perspectives*. De Gruyter.
- Koronkiewicz, B., & Ebert, S. (2018). Modality in experimental code-switching research: Aural versus written stimuli. In López Luis (Ed.), *Code-switching, experimental answers to theoretical questions: In honor of Kay González-Vilbazo* (pp. 147–176). John Benjamins Publishing Company.
- Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, 2(3), 21–35. <https://doi.org/10.1177/160940690300200303>
- Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for data analysis triangulation. *School Psychology Quarterly*, 22(4), 557–584. <https://doi.org/10.1037/1045-3830.22.4.557>
- Leedy, P. E., & Ormrod, J. E. (2010). *Practical research: Planning and design*. Pearson.
- Lin, A. M. (2008). Code-switching in the classroom: Research paradigms and approaches. In N. H. Hornberger (Eds.), *Encyclopedia of language and education* (pp. 3464–3477). Springer. https://doi.org/10.1007/978-0-387-30424-3_260
- Lin, Z. (2012). Code-switching: L1-coded mediation in a kindergarten foreign language classroom. *International Journal of Early Years Education*, 20(4), 365–378. <https://doi.org/10.1080/09669760.2012.743100>
- López-Zerón, G., Bilbao-Nieva, M. I., & Clements, K. A. V. (2021). Conducting member checks with multilingual research participants from diverse backgrounds. *Journal of Participatory Research Methods*, 2(2), 1–17. <https://doi.org/10.35844/001c.24412>
- Madison, D. S. (2012). *Critical ethnography: Method, ethics, and performance* (2nd ed.). SAGE Publications.
- Martin-Jones, M., & Martin, D. (2017). Reflexive ethnographic research practice in multilingual contexts. In M. Martin-Jones & D. Martin (Eds.), *Researching multilingualism: Critical and ethnographic perspectives* (pp. 189–202). Routledge.
- Matheson, J. (2007). The voice transcription technique: Use of voice recognition software to transcribe digital interview data in Qualitative Research. *The Qualitative Report*, 12(4), 547–560. <https://doi.org/10.46743/2160-3715/2007.1611>
- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
- McCallin, A. M. (2003). Designing a grounded theory study: Some practicalities. *Nursing in Critical Care*, 8(5), 203–208. <https://doi.org/10.1046/j.1362-1017.2003.00033.x>
- McIntyre, L. R. (2013). Examining a theory of instructional code switching: Implications for preparing teachers and leaders in culturally responsive pedagogy and praxis. *NAAAS & Affiliates Conference Monographs*(pp. 486–507). <https://www.naaas.org/wp-content/uploads/2014/09/2013monograph.pdf>

- Mengmeng, W. (2018). A study of qualitative research methods used in language teaching. *International Journal of Learning and Teaching*, 4(4), 306–310. <https://doi.org/10.18178/ijlt.4.4.306-310>
- Merriam, S., & Tisdell, E. (2016). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- Molinsky, A. (2007). Cross-cultural code-switching: The psychological challenges of adapting behavior in foreign cultural interactions. *Academy of Management Review*, 32(2), 622–640. <https://doi.org/10.5465/amr.2007.24351878>
- Morse, J. M. (2015). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative Health Research*, 25(9), 1212–1222. <https://doi.org/10.1177/1049732315588501>
- Motulsky, S. L. (2021). Is member checking the gold standard of quality in qualitative research? *Qualitative Psychology*, 8(3), 389–406. <https://doi.org/10.1037/qup0000215>
- Muysken, P. (2004). Two linguistic systems in contact: Grammar, phonology, and lexicon. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism* (pp. 147–168). Blackwell.
- Myers-Scotton, C. (1993). Common and uncommon ground: Social and structural factors in codeswitching. *Language in Society*, 22(4), 475–503. <https://doi.org/10.1017/s0047404500017449>
- Nguyen, L., Yuan, Z., & Seed, G. (2022). Building educational technologies for code-switching: Current practices, difficulties and future directions. *Languages*, 7(3), 220–231. <https://doi.org/10.3390/languages7030220>
- Nigar, N. (2020). Hermeneutic phenomenological narrative enquiry: A qualitative study design. *Theory and Practice in Language Studies*, 10(1), 10–18. <https://doi.org/10.17507/tpsl.1001.02>
- Noy, C. (2017). Ethnography of communication. In M. Jörg, C. Davis, & R. F. Potter (Eds.), *The international encyclopedia of communication research methods*. Wiley Blackwell.
- Onwuegbuzie, A. J., & Leech, N. L. (2007). Validity and qualitative research: An oxymoron? *Quality & Quantity: International Journal of Methodology*, 41(2), 233–249. <https://doi.org/10.1007/s11135-006-9000-3>
- Onwuegbuzie, A., & Leech, N. (2004). Enhancing the interpretation of significant findings: The role of mixed methods research. *The Qualitative Report*, 9(4), 770–792. <https://doi.org/10.46743/2160-3715/2004.1913>
- Ortiz, A. (2016). The qualitative interview. In F. Stage & K. Manning (Eds.), *Research in the college context: Approaches and methods* (pp. 47–61). Routledge, Taylor & Francis Group.
- Parameswaran, U. D., Ozawa-Kirk, J. L., & Latendresse, G. (2020). To live (code) or to not: A new method for coding in qualitative research. *Qualitative Social Work*, 19(4), 630–644. <https://doi.org/10.1177/1473325019840394>
- Paul, H. (1886). “Sprachmischung” [Language mixing]. In *Prinzipien der Sprachgeschichte*, (pp. 337–349). Max Niemeyer.
- Pavlenko, A. (2007). Autobiographic narratives as data in applied linguistics. *Applied Linguistics*, 28(2), 163–188. <https://doi.org/10.1093/applin/amm008>
- Pham, H. (2015). Learners’ perceptions of tertiary level teachers’ code switching: A Vietnamese perspective. *International Journal of Education and Pedagogical Sciences*, 9(6), 2011–2021.
- Plöger, S., & Barakos, E. (2021). Researching linguistic transitions of newly-arrived students in Germany: Insights from institutional ethnography and reflexive grounded theory. *Ethnography and Education*, 16(4), 402–419. <https://doi.org/10.1080/17457823.2021.1922928>

- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137–145. <https://doi.org/10.1037/0022-0167.52.2.137>
- Poplack, S., & Meechan, M. (1998). Introduction: How languages fit together in codemixing. *International Journal of Bilingualism*, 2(2), 127–138. <https://doi.org/10.1177/136700699800200201>
- Rincón, V., & Hollis, L. (2020). Cultural code-switching and Chicana/o post-secondary student persistence: A hermeneutic phenomenological analysis. *Journal of Latinos and Education*, 19(3), 232–245. <https://doi.org/10.1080/15348431.2018.1499516>
- Roulston, K. (2010). Considering quality in qualitative interviewing. *Qualitative Research*, 10(2), 199–228. <https://doi.org/10.1177/1468794109356739>
- Saldaña, J. (2011). *Fundamentals of qualitative research*. Oxford University Press.
- Sebba, M., Mahootian, S., & Jonsson, C. (2012). *Language mixing and code-switching in writing: Approaches to mixed-language written discourse*. Routledge.
- Shafie, L. A., & Nayan, S. (2013). Languages, code-switching practice and primary functions of Facebook among university students. *Studies in English Language Teaching*, 1(1), 187–199. <https://doi.org/10.22158/selt.v1n1p187>
- Starks, D., & Lee, J. (2010). Rethinking methodology: What language diaries can offer to the study of code choice. *Language Awareness*, 19(4), 233–248. <https://doi.org/10.1080/09658416.2010.502578>
- Stell, G., & Yakpo, K. (2015). *Code-switching between structural and sociolinguistic perspectives*. De Gruyter.
- Talmy, S. (2010). Qualitative interviews in applied linguistics: From research instrument to social practice. *Annual Review of Applied Linguistics*, 30, 128–148. <https://doi-org.ezp.slu.edu/10.1017/S0267190510000085>
- Thomas, D. C. (2006). Domain and development of cultural intelligence. *Group & Organization Management*, 31(1), 78–99. <https://doi.org/10.1177/1059601105275266>
- Ting, S. & Yeo, D. (2019). Code-switching functions in Facebook wallposts. *Human Behavior, Development & Society*, 20(3), 7–18.
- Tracy, S. K. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Wiley-Blackwell.
- Urban, B. (2012). A metacognitive approach to explaining entrepreneurial intentions. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 21(2), 16–33. <https://hdl.handle.net/10520/EJC124757>
- VanLeeuwen, C. A., Guo-Brennan, L., & Weeks, L. E. (2017). Conducting hermeneutic research in international settings: Philosophical, practical, and ethical considerations. *Journal of Applied Hermeneutics*, (2017), Article 7. <https://doi.org/10.11575/jah.v0i0.53309>
- Vogt, H. (1954) Language contacts. *Word* 10(2–3), 365–374. <https://doi.org/10.1080/00437956.1954.11659533>
- Wang, J., Komlodi, A., & Ka, O. (2018). Understanding multilingual web users' code-switching behaviors in online searching. *Proceedings of the Association for Information Science and Technology*, 55(1), 534–543.
- Wei, L. (2009). Code-switching and the bilingual mental lexicon. In B. E. Bullock & A. J. Toribio (Eds.), *The Cambridge handbook of linguistic code-switching* (pp. 270–288). Cambridge University Press.
- Weinreich, U. (1953) *Languages in contact: Findings and problems*. Mouton.

- Wright, N. L., Longerbeam, S. D., & Alagaraja, M. (2022). Chronic codeswitching: Shaping Black/White multiracial student sense of belonging. *Genealogy*, 6(3), 1–19. <https://doi.org/10.3390/genealogy6030075>
- Wynn, C. J., & Borrie, S. A. (2020). Methodology matters: The impact of research design on conversational entrainment outcomes. *Journal of Speech, Language, and Hearing Research*, 63(5), 1352–1360. https://doi.org/10.1044/2020_jslhr-19-00243
- Zimmerman, E. (2020). Code-switching in conversation-for-learning: Creating opportunities for learning while on study abroad. *Foreign Language Annals*, 53(1), 149–175. <https://doi.org/10.1111/flan.12440>

Notes on Contributor

Daniel Jones is a PhD candidate in Education Leadership at St. Louis University and teaches German for the Ritenour School District in St. Louis. Jones previously taught music, German, and English in Central Iowa. Among Jones' research interests are language contact phenomena, school calendars and time, arts-based learning, and anything music-related. A native of Iowa, Jones earned his Bachelor of Music Education from Iowa State University and a master's degree in music from Southwestern Oklahoma State University. Additionally, Jones is an active trumpeter in the St. Louis metropolitan area, where he also resides with his family.

ORCID

Daniel Jones, <https://orcid.org/0000-0001-6365-0797>

Manuscript received January 17, 2023
Final revision received February 16, 2023
Accepted February 18, 2023