Towards Mixed Methods Narrative Inquiry and Mixed Methods Narrative Research that are Transparent, Rigorous, Ethical, and Equitable (TREE)

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Abstract
This article examines the intersection of mixed methods research with both narrative inquiry and narrative research—what we refer to as *mixed methods narrative inquiry* and *mixed methods narrative research*, respectively—proposing a novel meta-framework based on **T**ransparency, **R**igorousness, **E**quitableness, and **E**thicality (TREE). Through a comprehensive analysis, we explore the philosophical foundations, including social constructionism and social constructivism, that inform narrative inquiry and narrative research. A systematic review of the literature that we conducted previously highlights the underutilization of mixed methods research approaches in narrative studies—revealing only 36 Scopus-indexed works that represent either mixed methods narrative inquiry or mixed methods narrative research over a 64-year period (1960-2004), which represents less than 1% of all narrative inquiry and narrative research studies published to date. The scant focus given to conducting mixed methods narrative inquiry and mixed methods narrative research studies underscores the necessity of our call for an increased use of these research approaches that promote greater methodological integration. By introducing a TREE-oriented meta-framework, underscored by a tree metaphor, we advocate for research approaches that fully integrate the depth of narrative inquiry and narrative research with the empirical strength of quantitative analysis. This article contributes to the scholarly conversation by offering a framework that can help researchers navigate and enrich their understandings of the complexity of human experiences through mixed methods narrative inquiry and mixed methods narrative research. The proposed approach aims to enhance the richness, depth, and ethical considerations in narrative-based investigations, presenting a compelling case for the symbiotic relationship between qualitative depth and quantitative clarity.

Keywords: Narrative inquiry, narrative research, mixed methods narrative inquiry, integrated mixed methods narrative inquiry, 1 + 1 = 3 integration, 1 + 1 = 1 integration, partial integration, full(er) integration

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Exploring the Distinctive Features of Narrative Inquiry and Narrative Research

Narrative inquiry and narrative research are qualitative research approaches that focus on the collection, analysis, and interpretation of stories or narratives to explore human experiences, understandings, and the social world. These two approaches are closely related concepts within qualitative research, often used interchangeably in discussions about qualitative research methodology. However, despite their close association, subtle but important distinctions can be made regarding their focus and application. These distinctions will be outlined in the following sections.

Narrative Inquiry

Narrative inquiry centers on the ways that individuals experience the world. More specifically, it emphasizes understanding and interpreting people's lived experiences as they themselves narrate them (Clandinin, 2022). This approach is deeply concerned with the storytelling process, considering narratives as both the method and the phenomenon of study (Clandinin, 2006). As a methodology, narrative inquiry involves collecting detailed stories (e.g., personal narratives, life histories, testimonies) and then analyzing them to understand how individuals construct meaning in their lives (Clandinin, 2006). Conducting narrative inquiry involves paying close attention to the context, sequence, and the subjective interpretation of events. Clandinin and Rosiek (2007) proposed a three-dimensional space for conducting narrative inquiry, encompassing time (i.e., past, present, future), place (i.e., the physical and social context), and interaction (i.e., personal and social conditions). According to these authors, narratives unfold within a dynamic interplay of these three dimensions. Findlay (2018) conceptualized a fourth space in the narrative inquiry process, which she called a *generative space*. This generative space represents the space "where the sum of all the lived experiences gathered by the three rivers [i.e., spaces] is pooled and generates an understanding of how the present and possible future has, and may be, shaped" (p. 89), and with the output from the generative space being formed from the totality of the lived experiences of humans. By adopting a multidimensional perspective, narrative inquiry researchers can capture the depth and richness of the stories that they study, offering nuanced insights into the lived realities of individuals within their specific contexts. This approach can enrich the narrative inquiry process and deepen understandings of the human condition.

Philosophical Roots of Narrative Inquiry

Narrative inquiry has its roots in constructivist research philosophy—specifically, both social constructionism and social constructivism.

Social Constructionism. Generally speaking, the goal of social constructionism is to foster understanding through the reconstruction and indirect experiences of individuals or groups (Berger & Luckmann, 1967; Schwandt, 2000). This perspective holds that the creation of (social) meanings does not occur in isolation within an individual, but, rather, emerges through collaborative interactions with others. A fundamental aspect of social constructionism is that individuals make sense of their daily lives by constructing—often through language—a conceptual model of the social environment and its functioning (Leeds-Hurwitz, 2009).

Furthermore, social constructionist viewpoints suggest that daily experiences stem from tacit social consensus, practices within society, collective actions, and various social processes, instead of from any objective reality, indicating that such experiences materialize through these social mechanisms. Consequently, social meanings emerge from the collective interplay of perspectives.

Through a social constructionist lens, claims to knowledge are structured within a theoretical framework that individuals use to interpret and to articulate their experiences of the world (Schwandt, 2000). Schwandt (2007) highlights that social constructionism focuses on how individuals interpret their experiences; the ways in which they identify, establish, and perpetuate social practices; and how they reach a mutually understood interpretation of particular life events.

In the context of narrative inquiry, the profound emphasis placed on narratives aligns deeply with the core tenets of social constructionism, which venerates discourse and practices as the pivotal axes around which the fabric of reality is woven. This convergence highlights the intrinsic power of narratives to shape, to define, and to reconstitute individuals' perceptions of the world. By foregrounding narratives, narrative inquiry extends beyond a mere acknowledgement of language—and oral and embodied instantiations of it—as a medium of expression; it elevates it to the status of representing a critical instrument through which individuals and communities negotiate, articulate, and reimagine their shared realities. The alignment of social constructionism and narrative inquiry is both natural and intentional. It underscores a mutual recognition that the stories we tell, the discourses in which we engage, and the linguistic structures that we navigate are not passive backgrounds to human experience, but, instead, active participants in the creation and modulation of that experience. In this way, narrative inquiry becomes a powerful exploration of how reality is collectively and continuously crafted through the interplay of personal and communal narratives. This alignment affirms that our understanding of the world and our place within it is fundamentally shaped by the narratives that we (co-)construct and share, making the exploration of these narratives a pathway to unraveling the complex web of human social existence.

Social Constructivism. Whereas constructionism represents social meaning making, with the emphasis being on the co-construction of meaning among people (with understandings and rules that are social—and not purely cognitive—processes), social constructivism suggests that people construct their own understanding and knowledge by merging new ideas with their existing knowledge and beliefs (Richardson, 1997). Social constructivism stems from a subjectivist theory of psychological learning (Hoagland, 2000), integrating aspects of Vygotsky's (1962, 1978) sociocultural theory (cf. Palinscar, 1998). Proponents of social constructivism suggest that the acquisition of knowledge not only is personal, but also is significantly influenced by the individual's engagement in social settings (Cole, 1990; Palinscar, 1998; Scribner, 1985). In particular, social constructivism focuses on learning that emerges from interaction within groups, differentiating itself from social or cultural frameworks generated as a result (i.e., social constructionism; Palinscar, 1998; Rust et al., 2005).

With regard to narrative inquiry, the principles of social constructivism also hold significance, especially when examining the processes of learning and cognitive development within the fabric of social interactions. This perspective illuminates how individuals construct their own narratives through personal experience and how these narratives are deeply intertwined with and influenced by the individuals' social environments. Social constructivism underscores the

dynamic interplay between an individual's internal cognitive processes and the external social world, suggesting that learning is a socially mediated activity. Through engaging with others, sharing stories, and participating in communal practices, individuals co-construct knowledge and meaning, thereby shaping their understanding of themselves and the world around them. This alignment with social constructivism highlights the profound impact of social contexts on narrative formation and cognitive growth, emphasizing the collaborative nature of learning and the critical role of social interaction in fostering individual development.

Narrative Research

Narrative research represents an expansive and inclusive term that encapsulates a variety of methodologies—including narrative inquiry—dedicated to the exploration of narratives. This field of study embraces a research tradition that leverages the art of storytelling as a powerful tool to extract profound insights into the rich tapestry of human experiences, cultural traditions, and intricate social patterns. Simply put, narrative research refers to any research strategy that employs storytelling to glean insights into human experiences, cultures, and social patterns.

Whereas narrative inquiry focuses deeply on lived experiences and the deep and nuanced interpretation of personal stories that reveal the essence of human experience, narrative research casts a wider net, embracing a diverse array of narrative forms. These forms may range from the examination of public narratives that shape collective identity, to the analysis of historical accounts that chronicle our past, or even to the exploration of fictional stories that, while born from imagination, illuminate textures of our reality. This methodological flexibility is a versatile toolkit for investigators.

The scope of narrative research extends far beyond the boundaries of the social sciences, making its mark across a diverse spectrum of academic disciplines—from education, wherein stories shape learning and identity; to psychology, wherein narratives help our understanding of the psyche; to health studies, wherein patient stories inform care and recovery; to literature, wherein the narrative form is both the subject and method of study. Narrative research offers a unique perspective on the study of human life. By employing narratives as a prism, narrative researchers are able to dissect and to understand the multifaceted, entangled, and layered nature of human existence and social interaction. Through this lens, narratives are not just stories; they offer deep insights into society, yielding unique understandings of the human condition across time and culture.

Philosophical Roots of Narrative Research

Similar to narrative inquiry, narrative research draws on social constructionism and social constructivism, particularly when examining how narratives are used to construct social realities and identities. These perspectives emphasize the role of language and social interactions in creating shared understandings of the world, aligning with narrative research's interest in how narratives shape and are shaped by social contexts. However, narrative research, with its diverse applications and interdisciplinary nature, does not stem from a single philosophical tradition. Instead, narrative research has roots in multiple philosophical and theoretical frameworks, reflecting its broad scope and versatility in analyzing narratives across various contexts (see, for e.g., de Zengotita, 2019; Glen Curran, 2011; Larty & Hamilton, 2011; Pitre et al., 2013; Spector-Mersel, 2010). These roots include *hermeneutics* (i.e., focusing on how spoken and/or written narratives construct and convey meanings within cultural and social contexts), *phenomenology* (i.e., focusing on exploring the lived experiences of individuals;

emphasizing the subjective experience and the intentionality of consciousness), *structuralism* (i.e., focusing on examining the common elements and functions that narratives share, regardless of their cultural or historical context), *post-structuralism* and *deconstruction* (i.e., focusing on exploring the multiplicity of meanings in narratives and the ways in which narratives can both reflect and resist dominant discourses), and *critical theory* (e.g., feminist theory, post-colonial theory, critical race theory; focusing on examining narratives as sites of struggle and resistance, exploring how they can both reproduce and challenge societal norms and power relations).

As such, narrative research is rooted in a rich collection of philosophical and theoretical traditions, each contributing different lenses through which narratives can be analyzed and understood. This interdisciplinary foundation enables narrative researchers to address a wide range of research questions and contexts, from personal stories to cultural narratives, and from structural analyses of narrative forms to critical examinations of the role of narratives in society.

Foundational Philosophical Assumptions and Stances of Narrative Inquiry and Narrative Research

Although narrative inquiry and narrative research both privilege stories and narratives as fundamental lenses through which human experiences are deciphered and understood, they diverge subtly yet significantly in their philosophical foundations, mental models, and cognitive frameworks (cf. Caine et al., 2022; Clandinin et al., 2018; Mertova & Webster, 2020). This divergence manifests in nuanced and distinctive ways, influencing each approach's perspective on the intrinsic role that narratives play, the epistemological roots from which they draw their understanding of knowledge, and the diverse methodological pathways that are crossed during the conduct of research.

Specifically, narrative inquiry, with its deep-seated roots in social constructionism and social constructivism, involves the adoption of a profoundly introspective stance towards narratives, viewing them as windows into the individual's lived experiences, rich with personal meanings and subjective realities. This approach champions a relational epistemology, emphasizing the co-creation of knowledge through the intimate exchange between researcher and participant(s), whereby stories are not merely told, but shared, resonating with the depth of human connection.

Conversely, narrative research, embracing a wider array of philosophical traditions—including structuralism, post-structuralism, and critical theories—approaches narratives with a broader lens. Narrative researchers seek to understand narratives not only as personal tales, but also as social and cultural constructs, examining how stories weave through the fabric of society, reflecting, shaping, and sometimes challenging the collective consciousness and cultural milieu.

These distinctions are not merely academic; they profoundly influence the trajectory of research conducted under each approach. Through narrative inquiry, researchers can delve deeply into the essence of individual stories, seeking to uncover the rich tapestries of meaning and insight that personal narratives provide. In contrast, narrative researchers can cast a wider net, exploring the multifaceted roles that narratives play across societal stages, from the personal to the communal, and from the local to the global.

Therefore, although both approaches share a common belief in the power of narratives to unlock understandings and to foster human connections, the differing philosophical

underpinnings and mental models illuminate diverse paths of exploration. This diversity enriches the field of narrative-based investigations, offering a spectrum of approaches through which the complexity of human life and society can be explored, understood, and appreciated.

Table 1 provides a comparison of the philosophical assumptions and stances of narrative inquiry and narrative research. This table transcends mere summary; rather, it demonstrates the intricate connections of three axiomatic components with an insightful examination of 10 critical issues. These issues encompass (a) the role of rhetoric in communicating stories; (b) the essence and integrity of knowledge; (c) the multifaceted processes of knowledge accumulation; (d) the standards by which the quality and goodness of research are judged; (e) the deeply held values that guide the research approach; (f) the ethical considerations that safeguard the dignity and respect of all involved in the investigation; (g) the posture adopted by the researchers as they navigate the research terrain; (h) the specialized training that equips researchers for their scholarly journeys, and (i) the underlying qualitative analyses and (j) quantitative analyses needed.

Table 1

Underlying Belief Systems Pertaining to Narrative Inquiry and Narrative Research and Distinguishing Characteristics

Paradigmatic Element	Narrative Inquiry	Narrative Research
Ontology	Tends to adopt a constructivist ontology, viewing reality as multiple and subjective, constructed through individual experiences and the meanings people attribute to these experiences. In narrative inquiry, reality is seen as fluid and shaped by the stories people tell about their lives, emphasizing the personal and contextual dimensions of these realities.	While also recognizing the constructed nature of reality, narrative research might incorporate a broader range of ontological stances depending on its application. For instance, in analyzing societal narratives or discourse, it might imply a more critical realism stance, acknowledging that narratives both reflect and shape social structures and realities beyond individual subjectivity.
Epistemology	Embraces a constructivist epistemology, wherein knowledge is co-created between the researcher and participants through the sharing and interpreting of personal narratives. This approach emphasizes relational knowledge, understanding that the researcher's engagement with participants' stories is central to the knowledge-production process.	May adopt a wider range of epistemological perspectives, including constructivist, but also potentially post-structuralist or critical, especially in analyses that focus on how narratives contribute to the construction of social identities, power relations, and cultural norms. Knowledge in narrative research is seen as situated within specific cultural, historical, and discursive contexts.
Methodology	Methodologically, narrative inquiry is deeply qualitative, centered around collecting and analyzing personal stories to understand lived experiences. The methodology is iterative and flexible, allowing for deep engagement with	Encompasses a broader methodological scope that may include both qualitative and quantitative research approaches, depending on the specific objectives and the narrative

Paradigmatic Element	Narrative Inquiry	Narrative Research
	the narrative material. Techniques often involve in-depth interviews, autobiographical writing, and participatory methods wherein the researcher and participants collaboratively explore the meanings of the narratives.	forms under study. Methods can range from content analysis, discourse analysis, and thematic analysis of narrative texts to more structured approaches that quantify narrative elements. The choice of methodology is guided by the specific narrative dimensions the researcher aims to explore, whether focusing on narrative content, structure, function, or impact.
Rhetoric	Often adopts a personal, reflective, and sometimes conversational tone. The rhetoric in narrative inquiry emphasizes storytelling, with the researcher frequently engaging with the narratives in a way that highlights the process of interpretation and understanding.	May employ a broader range of rhetorical styles, depending on the disciplinary conventions and the specific narrative approach being used. The rhetoric can vary from analytical and critical in studies focusing on discourse analysis, to descriptive and interpretative in studies emphasizing content or thematic analysis.
Nature of knowledge	Views knowledge as personally and socially constructed, with a strong emphasis on the subjective experience and the meanings that individuals attribute to their experiences.	Also acknowledges the constructed nature of knowledge but may place greater emphasis on how narratives shape and are shaped by cultural, social, and historical contexts, reflecting a more externalized construction of knowledge.
Knowledge accumulation	Knowledge is accumulated through the deep, contextual understanding of individual stories, with insights often emerging through the interpretation of lived experiences and the relationships between the researcher and participant(s).	Knowledge accumulation can be more varied, involving the aggregation of themes or patterns across multiple narratives, the analysis of narrative structures, or the examination of narrative functions within society.
Goodness or quality criteria	The quality often is assessed based on the depth of insight, coherence, and authenticity of the narratives, as well as the reflexivity and ethical engagement of the researcher.	Criteria for assessing quality can include the rigor of the analytical methods, the effectiveness of the narrative in conveying broader social or cultural insights, and the contribution to theoretical understanding.
Axiology	Values are integral, with the researcher's and participants' values influencing the inquiry process. There is an emphasis on empathy, respect, and the co-construction of meaning.	Although also value-laden, narrative research might more explicitly examine the values embedded within narratives themselves or how narratives serve to propagate or to contest certain values within society.
Ethics	Ethical considerations focus on relationships, with an emphasis on respecting the	Ethics also concern the respectful handling of narratives, but there might

Paradigmatic Element	Narrative Inquiry	Narrative Research
	participants' stories, ensuring confidentiality, and navigating the shared construction of narratives responsibly.	be additional considerations around the analysis of public narratives or narratives that involve broader groups or communities.
Inquirer posture	The inquirer often adopts a posture of openness, engagement, and reflexivity, viewing themselves as a co-participant in the narrative process.	The researcher's posture can vary but often involves a critical, analytical stance, especially in approaches that examine narratives as social or cultural artifacts.
Training	Requires training in qualitative methods, with a particular emphasis on interview techniques, ethical considerations in working closely with participants, and interpretative analysis skills.	The training needed can be broader, including qualitative and sometimes quantitative research methods, depending on the specific narrative approach. Researchers might need skills in critical discourse analysis or visual narrative analysis, among others.
Qualitative analysis	All forms of qualitative analysis, with an emphasis on narrative analysis and its variants (e.g., dialogic narrative analysis, structural narrative analysis, thematic narrative analysis, psychoanalytic narrative analysis, phenomenological narrative analysis, socio-narratology, critical narrative analysis, visual narrative analysis).	All forms of qualitative analysis, with an emphasis on narrative analysis and its variants (e.g., dialogic narrative analysis, structural narrative analysis, thematic narrative analysis, psychoanalytic narrative analysis, phenomenological narrative analysis, socio-narratology, critical narrative analysis, visual narrative analysis).
Quantitative analysis	Descriptive statistics.	Descriptive statistics; some inferential statistics that lead to internal (statistical) generalization but not to external (statistical) generalization.

Narrative Analysis

Narrative analysis is a fundamental component of both narrative inquiry and narrative research. Although, as has been described, these two approaches have distinctions in their orientations and applications, both involve a narrative analysis that supports a researcher's interpretation and understanding of the stories collected from participants. As described by Onwuegbuzie and Denham (2014), the framework for narrative analysis, initially developed by sociolinguists Labov and Waletzky in 1967, emerged during the modernist era of qualitative research. Labov and Waletzky, valuing personal experiences as the richest data sources, focused on life stories as the central object of analysis. To avoid the risks of observer paradox (i.e., immersion bias) and potential contamination of the content, they implemented a structured, formal model to dissect narratives through the following six elements: (a) an abstract, summarizing the narrative; (b) orientation, detailing the setting including time, place, and participants; (c) complicating action, describing ensuing events; (d) evaluation, interpreting the significance of the events to the narrator; (e) resolution, explaining the conclusion; and (f) coda, linking the

story back to the present. This approach to narrative analysis—namely, the analysis of narratives' temporal and chronological dimensions— focused on both text and events.

The post-modern era sparked a narrative revolution, with scholars like Langellier (1989) critiquing the linear constraints of Labov and Waletzky's (1967) model and advocating for the inclusion of experiential differences, such as gender or social interactions in narrative construction. Ricoeur (1990) expanded the event-centered narrative analysis model into a more comprehensive framework by linking past events to the present through a process of reconfiguration or employment, wherein the narrative's elements gain meaning and continuity across time, not necessarily in a linear fashion.

In 1991, Gee introduced the concept of episodic parsing in narrative analysis, identifying segments of narrative through changes in rhythm and pitch. Several years later, Lieblich et al. (1998) proposed a narrative analysis framework that intersects holistic and categorical approaches with content and form. This included analyzing the entire content of life stories, exploring narrative structures, categorizing topics and linguistic features, and examining stylistic elements. Hiles et al. (2009) extended this model by adding critical narrative analysis perspectives, as well as sjuzet-fabula (i.e., strategically planning the sequence and presentation of narrative events to enrich storytelling by distinguishing between the natural sequence of events [fabula] and their narrative presentation [sjuzet]). Riessman (2008), however, categorized narrative analysis into thematic case-centered, structural, dialogic/performative, and visual types. Narrative analysis utilizes textual, oral, or visual data as sources, encompassing a wide range of methodologies to explore narratives.

Dialogic Narrative Analysis and Dialogical Narrative Analysis

Dialogic narrative analysis is a specific approach within the broader field of narrative analysis that emphasizes the dialogic or interactive aspects of narratives (Onwuegbuzie & Denham, 2014). Dialogic narrative analysis tends to focus somewhat narrowly on textual and discursive interactions. This approach is grounded in the idea that narratives are co-constructed through interaction between individuals and their social, cultural, and historical contexts. Dialogic narrative analysis focuses on the multiple voices within a narrative, the relationship between these voices, and how they engage in a dialogue with each other and with broader societal discourses. Whereas traditional narrative analysis might focus on the structure, content, and meaning of individual narratives, dialogic narrative analysis involves a particular attention to the dynamics among different parts of the narrative and among different characters within the story, as well as the interaction between the narrator's voice and the voices of others. This includes how narratives reflect, resist, and/or negotiate with cultural norms, societal expectations, and historical contexts.

The origins of dialogic narrative analysis often are linked to the works of Mikhail Bakhtin in 1981, who was a seminal figure in semiotics and literary criticism, known for his analyses of the works of Dostoevsky and Rabelais. Bakhtin envisioned narrative analysis as a process marked by reciprocity, change, and openness within certain ideological contexts that individuals embody (or historical consciousness frames). Dialogic narrative analysis distinguishes itself from other narrative analysis forms by eschewing a singular narrative focus. Bakhtin introduced concepts like polyphony, wherein distinct voices are interwoven with the narrator's voice, and heteroglossia, the blending of individual voices within speech communities, as foundational to understanding dialogic interactions and narrative dynamics.

In contrast to dialogic narrative analysis, which tends to focus more narrowly on the text and its immediate dialogic relationships—emphasizing the structural and linguistic aspects of dialogue—dialogical analysis tends to incorporate a wider array of theoretical perspectives and contexts, placing more emphasis on the psychological and social processes involved in dialogue. Arthur Frank in 2010 further developed dialogical narrative analysis for use in socio-narratology, examining the relationship between the events described in narratives and the act of narration itself. This approach, emerging amidst the complex methodological landscape of qualitative research, emphasizes the role of narratives in shaping characters in terms of collective versus individual dynamics, identifying motivational patterns within groups, and exploring characters' interactions. Frank's (2010) analysis probed issues such as narrative control and suppression, the impact of individuals entwined in others' stories, the roles of fear and desire, narrative's effect on self-identity, interpretative fluidity of narratives, and performative aspects like audience expectations and their outcomes.

By 2012, Frank suggested that phronesis, or practical wisdom, should guide the selection of units for dialogical narrative analysis, characterizing the analysis by its deep engagement with others' lives and the co-presence, whether physical or textual, of the storyteller and analyst. This approach emphasizes the continuous negotiation of differing perspectives.

Gillespie and Cornish (2010) advocated for the application of dialogic narrative analysis in studies of inter-subjectivity, arguing that its emphasis on communicative relationships as the analytical focus offers an advantage over ethnography and conversation analysis. They proposed a dialogic analytical framework that considers (a) phenomena beyond the immediate situation, (b) addressivity (i.e., the nuanced orientations of the speaker towards the audience), and (c) the presence of *second-hand* voices, through a coding scheme that navigates three levels of perspective within two contextual frames for exploring inter-subjectivity.

Other Types of Narrative Analysis

In addition to dialogic narrative analysis, there are several other types of narrative analyses, including the following: structural narrative analysis, thematic narrative analysis, psychoanalytic narrative analysis, phenomenological narrative analysis, socio-narratology, critical narrative analysis, visual narrative analysis, comparative narrative analysis, performance narrative analysis, digital narrative analysis, ecocritical narrative analysis, and narrative policy analysis policy. Specifically,

- Structural narrative analysis involves a focus on the underlying structure of narratives, identifying common plot elements, character archetypes, and narrative functions as a way to understand how stories are universally constructed and conveyed (Cruz & Kellam, 2017; Hendricks, 1973; Riessman, 2008).

- Thematic narrative analysis involves examining the recurring themes and motifs within narratives, aiming to uncover the deeper meanings and insights that these patterns reveal about human experience and societal values (Riessman, 2008).

- Psychoanalytic narrative analysis involves applying concepts from psychoanalysis to interpret narratives, exploring unconscious and subconscious desires, conflicts, and motifs to understand the psychological underpinnings of storytelling and character development (Kelly & Rashkin, 1994).

- Phenomenological narrative analysis emphasizes the lived experiences that are conveyed through narratives, focusing on how individuals perceive and make sense of

their worlds, aiming to capture the essence of these experiences as faithfully as possible (Young, 1986).

- Socio-narratology involves examining narratives within their social and cultural contexts, exploring how stories reflect, shape, and are shaped by societal norms, values, and power dynamics, highlighting the role of narratives in social identity and interaction (Phoenix et al., 2017).

- Critical narrative analysis involves employing a critical lens to examine narratives, scrutinizing how they reproduce or challenge societal inequalities and power relations, with a focus on uncovering hidden ideologies and promoting social justice (Souto-Manning, 2014).

- Visual narrative analysis involves investigating narratives told through visual media, such as films, photographs, and comics, analyzing how visual elements and their arrangement convey stories, emotions, and meanings (Freistein & Gadinger, 2020; Riessman, 2008; Salama, 2021).

- Comparative narrative analysis involves comparing narratives from different sources, cultures, or time periods to identify common themes, structures, and variations. This approach can highlight cross-cultural similarities and differences in storytelling practices and themes (Saint Arnault & Sinko, 2021).

- Performance narrative analysis involves examining narratives as performances, focusing on how stories are told, the role of the narrator, and the interaction with the audience. It emphasizes the performative aspects of storytelling and its impact on audience engagement and interpretation (Green, 2017; Riessman, 2008).

- Digital narrative analysis involves exploring narratives that are created and shared in digital environments, such as social media, blogs, and online communities. It examines how digital platforms shape narrative forms, dissemination, and audience interaction (Devgan, 2015).

- Ecocritical narrative analysis involves applying an ecocritical perspective to narratives to explore environmental themes and the relationships between humans and the natural world. It seeks to uncover underlying ecological perspectives and values in narratives (James & Morel, 2018).

- Narrative policy analysis involves that use of narrative analysis to examine policy documents and discussions, focusing on how narratives shape and are shaped by policy-making processes. It explores the stories that underpin policy debates and decisions (Rhodes, 2018; Roe, 1994).

Narrative Analysis Applied to Narrative Inquiry and Narrative Research

With respect to narrative inquiry, narrative analysis involves examining how individuals construct their identities and understandings through narrative. This analysis involves paying close attention to the elements of storytelling, such as plot, characters, and settings, to interpret the deeper meanings and insights into the participants' experiences. More specifically, narrative analysis primarily is concerned with delving into the personal stories of individuals to understand their experiences, perceptions, and the meanings they ascribe to their lives. In this context, narrative analysis often involves a close examination of the content, structure, and

style of each narrative, seeking to uncover the unique ways in which individuals construct and interpret their experiences. Furthermore, narrative analysis places a strong emphasis on the context in which stories are told, including the cultural, social, and historical backgrounds that shape individuals' narratives. Here, the aim of narrative analysis is to reveal how these contexts influence the telling and content of stories, as well as the identities and understandings of the narrators. While focusing on individual stories, narrative inquiry also involves the use of narrative analysis to identify themes and patterns across narratives, offering insights into shared experiences or broader societal phenomena.

In contrast, narrative research encompasses a broader range of applications, including the analysis of narratives found in literature, historical documents, media, and other cultural artifacts, in addition to personal stories. In narrative research, narrative analysis extends beyond personal experiences to examine how narratives operate within and across cultures and societies. Narrative analysis in narrative research explores how stories reflect, reinforce, or challenge cultural norms, ideologies, and social structures in which narratives are produced, reproduced, and received. In addition, narrative research often involves the investigation of the role of narratives in constructing and contesting power relations. Therefore, a focus of narrative analysis is on the ways in which narratives serve to legitimize certain perspectives or voices while marginalizing others. Also, given its broader scope, narrative research and its associated narrative analysis techniques are applied across a wide range of disciplines, including history, literature, media studies, and sociology. This diversity leads to a variety of analytical approaches tailored to the specific goals and conventions of each field.

Despite these differences, both narrative inquiry and narrative research utilize narrative analysis to uncover deeper meanings, insights, and understandings embedded within narratives, showcasing the versatility and richness of narrative as a research tool. Through meticulous examinations of personal tales and broader cultural narratives, both sets of researchers unearth insights that resonate on multiple levels—personal, cultural, and societal—highlighting the intricate tapestry of human experience. The application of narrative analysis across both these domains underscores this analytical method's adaptability and depth, demonstrating its capacity to help researchers navigate the complexities of individual lives and collective histories. As a research tool, for both narrative inquiry and narrative research, narrative analysis provides a lens through which researchers can examine, magnify, and understand deeply the nuances of human existence.

Distinguishing Narrative Inquiry and Narrative Research in a Nutshell: Summarizing Points and Introducing Mixed Methods Research

Narrative inquiry represents a specific form of narrative research with a distinct focus on personal lived experiences. Through narrative inquiry, researchers can delve into the profound depths of individual stories, seeking to uncover the rich layers of meaning that these narratives embrace. This approach is deeply immersive, privileging the subjective truths and deep feelings and emotions shared via personal storytelling. In contrast, narrative research casts a wider net, embracing a vast spectrum of narrative forms—from historical accounts and public narratives to fictional tales—each offering unique lenses through which to examine the human condition. This broad categorization allows narrative research to adapt its methodologies to suit a diverse array of research objectives, making it a versatile tool for inquiry across disciplines.

Narrative inquiry is characterized by its philosophical richness and theoretical depth. It involves engaging earnestly with the conceptual foundations of narrative as a phenomenon,

weaving together insights from literary theory, psychology, and sociology to explore the ways in which stories shape our understanding of the world and ourselves. This approach recognizes narratives not only as a means for expressing individual and collective identities, but also as a means through which societies construct and communicate cultural values and truths. On the other hand, narrative research demonstrates methodological versatility and theoretical openness, accommodating a broader spectrum of perspectives and frameworks. This inclusivity enables researchers to navigate a wide range of narrative terrains, from analyzing the narrative structures that underpin social interactions to exploring the performative dimensions of storytelling in various cultural contexts. Through this expansive approach, narrative research highlights the multifaceted ways in which narratives function within and across societies, offering insights into the diverse mechanisms through which humans interpret and navigate their worlds.

In conclusion, the delineation between narrative inquiry and narrative research is subtle yet profoundly significant, being dependent on the intricate interplay of their focal areas, theoretical underpinnings, and methodological frameworks. At the heart of this distinction lies narrative inquiry, which can be viewed as a specialized approach within the broader approach of narrative research. Narrative inquiry is distinguished by its deep commitment to exploring the rich array of personal experiences, offering a lens through which the multifaceted and often emotional interpretations of life stories are brought to the fore. This approach is not merely about collecting stories; it is an immersive journey into the sphere of human experience, seeking to uncover the layers of meaning woven into the fabric of personal narratives. Narrative research, with its expansive scope, serves as an umbrella term that encompasses a diverse range of methodologies aimed at exploring the narrative dimension of human existence. It stretches beyond the individual to encompass the analysis of narratives in a variety of forms, from public and historical narratives to fictional accounts, each offering unique insights into the human condition. Narrative research is characterized by its flexibility, adapting its lens to capture the myriad ways in which stories shape and are shaped by social, cultural, and historical contexts.

Despite these distinctions, the terms narrative inquiry and narrative research often are used interchangeably in scholarly discourse, particularly in discussions wherein the emphasis is directly on the transformative power of narratives. In these contexts, the choice of term might reflect a broader philosophical alignment with the idea that narratives are not just vehicles for storytelling but are fundamental to the construction of knowledge and understanding in the human sciences. This fluidity in usage underscores a shared recognition of the important role of narratives in interpreting the complexities of human experience, bridging the gap between individual lived experiences and the collective story of human existence.

Given the marked, and sometimes subtle, differences between narrative inquiry and narrative research, we have chosen not to use these terms interchangeably. Instead, we advocate for conducting *both* narrative inquiry and narrative research, guided by what Greene (2007) and Onwuegbuzie (2012) describe as a "mixed methods way of thinking" (p. 20) and a "mixed methodological way of thinking" (p. 204), respectively. As these authors elaborate, this approach transcends the simple combination of these two narrative approaches with quantitative research methods. Rather, it involves a thoughtful integration of these methods/methodologies to enable a richer, more holistic comprehension and depiction of complex phenomena. This perspective leverages the profound ability of narratives to illuminate human experiences, thereby enriching our understanding through a blend of narrative depth and quantitative clarity.

Prevalence of Mixed Methods Narrative Inquiry and Mixed Methods Narrative Research

Until now, the scholarly exploration into how frequently mixed methods narrative inquiry and mixed methods narrative research have been utilized has remained untouched, something our recent research has revealed (Onwuegbuzie & Abrams, in press). We meticulously charted the landscape of these dual approaches, conducting what Onwuegbuzie (in press-a) refers to as a *fully integrated systematic review*. This rigorous method stands out for integrating both quantitative and qualitative methods and techniques throughout the review process, ensuring a comprehensive and nuanced understanding of the landscape.

Method and Results of Our (Onwuegbuzie & Abrams, in press) Systematic Review

We recently conducted a fully integrated systematic review (i.e., Onwuegbuzie & Abrams, in press) to identify the total number of works in the extant literature (i.e., journal articles, books, and book chapters) that represented either mixed methods narrative inquiry or mixed methods narrative research. In order to identify these works, we used the Scopus database for the years that spanned from 1960 (i.e., the earliest year for which records have been kept) and April 3, 2024. We used the following string: [TITLE-ABS-KEY ("mixed method") AND TITLE-ABS-KEY ("Narrative Inquiry") OR TITLE-ABS-KEY ("Narrative Research")].

Our systematic review led to the identification of only 36 Scopus-indexed documents worldwide that represented some form of mixed methods narrative inquiry or mixed methods narrative research. This amounts to an average of only approximately one article published every 2 years over this 64-year period. Based on a follow-up Scopus-based rapid review of all works that specified "narrative inquiry" or "narrative research" in the title and/or abstract over this same time period, we estimated that the 36 extracted mixed methods narrative inquiry or mixed methods narrative research works represented less than 1% of all narrative inquiry and narrative research studies published to date.

We conducted a second, rapid review using Scopus to determine the prevalence of works titled with the phrases "mixed methods narrative inquiry" or "mixed methods narrative research." This search yielded only two publications: Gabay (2023) and Sander (2022), both featuring "mixed methods narrative inquiry" in their titles.

As part of our systematic review (Onwuegbuzie & Abrams, in press), we examined these 36 mixed methods narrative inquiry or mixed methods narrative research works with respect to the growth trajectory, field/discipline of each work, their distribution by country or territory, emergent themes across these works, research designs across these works, and use of the term "mixed methods narrative inquiry" and "mixed methods narrative research" within these works. With regard to the growth trajectory, we determined that the earliest Scopus-indexed publications representing mixed methods narrative inquiry or mixed methods narrative research appeared in 2013, with three notable works (i.e., Legg, 2013; Ortaçtepe, 2013; Parry & Willis, 2013) marking the beginning. Thus, the empirical literature on Scopus-indexed mixed methods narrative inquiry and research spans slightly more than a decade. Notably, a significant 41.67% of this literature was published in the last two years, with approximately 30.56% of the Scopus-indexed works emerging in 2023 alone. This surge highlights the recent and growing interest in integrating mixed methods within narrative inquiry and narrative research.

Growth Trajectory. Our follow-up review of the Google Scholar database (Onwuegbuzie & Abrams, in press) indicates that narrative inquiry, discussed formally for the first time by Dray

(1971) and used in research in the same year by Crites (1971), has historical origins extending back at least 53 years from the time of writing. In contrast, the earliest Scopus-indexed publications on mixed methods narrative inquiry or mixed methods narrative research only date back to 2013. This 42-year gap highlights a significant delay before scholars in narrative inquiry and narrative research began to adopt mixed methods research approaches into their work. Additionally, the first instance of a mixed methods inquiry indexed by Scopus is attributed to Leithwood et al. in 1999, indicating that it took an additional decade for the first mixed methods narrative inquiry or mixed methods narrative research to be documented in Scopus.

Field/Discipline of Each Work. The field of social sciences accounts for the largest contribution of articles on mixed methods narrative inquiry and mixed methods narrative research, comprising slightly more than one third of the total articles. This is followed by arts and humanities at 14.3%, with medicine and psychology each contributing 12.7%. Business, management, and accounting make up 6.3%, while nursing is responsible for 4.8% of the articles. The other fields and disciplines collectively account for 1.6% of the works.

Distribution by Country or Territory. The United States had the highest representation, accounting for 33.33% of the studies, followed by the United Kingdom at 19.44%. Australia and Italy each contributed 8.33%. South Africa and China were next, each representing 5.56% of the studies. All other included countries were represented by a single study each. Notably, English-speaking Western countries—specifically the United States, United Kingdom, Australia, and Canada—comprised nearly two thirds (63.9%) of the total studies.

Emergent Themes Across these Works. Our thematic analysis (Onwuegbuzie & Abrams, in press) revealed that the 36 mixed methods narrative inquiry or mixed methods narrative research works encompass a broad spectrum of scholarly pursuits, ranging from the exploration of innovative educational techniques and the intricacies of healthcare management to the examination of gender dynamics within creative fields. Each subject area serves as a distinct focal point, demonstrating the extensive breadth of topics addressed within the 36 mixed methods narrative inquiry and mixed methods narrative research studies. This diversity underscores the rich, multifaceted nature of research within these methodologies.

Research Designs Across these Works. Of the 36 studies, the researchers in 23 of them (63.88%) specifically documented the collection and analysis of both qualitative and quantitative data, incorporating narrative data as part of the qualitative component. Within this subset, 12 studies involved the employment of a concurrent design wherein quantitative and narrative data were collected simultaneously but independently. The remaining 11 studies involved the use of various sequential designs, with 8 of these studies beginning with quantitative analysis followed by narrative analysis. This method typically allowed the narrative inquiry to augment, to contextualize, or to deepen the understanding of the quantitative findings within a broader mixed methods research framework. Conversely, the other three studies started with narrative analysis, using subsequent quantitative analysis to extend or to generalize the findings from the detailed stories or experiences explored through narrative techniques. In three studies, the point of mixing/integration occurred during the data analysis stage.

Of concern was that the authors of 10 studies wherein the author(s) claimed to employ mixed methods narrative inquiry or mixed methods narrative research failed to provide detailed explanations of their research design, data collection, and analysis techniques. Their descriptions were not sufficiently clear or detailed to show in a convincing manner compliance

with the standards of mixed methods narrative inquiry or mixed methods narrative research. Moreover, many of these studies seemed to lack the necessary rigor in their application of mixed methods research techniques. Equally troubling, exactly one half of these researchers (50.0%) did not adequately connect their research methods to the existing body of mixed methods research literature, with no methodological references cited.

Additionally, 13.88% of the studies engaged minimally with the mixed methods research literature, often citing only one source and providing just a very brief description of their approach. Another 22.22% demonstrated a moderate level of engagement. Only 13.90% of the studies showed substantial engagement with mixed methods research literature. The fact that approximately two thirds (63.88%) of the researchers inadequately grounded their research methods in the mixed methods research literature is particularly disturbing, especially considering the positive relationship between the number of citations and the quality of the article, as reported by Onwuegbuzie et al. (2013).

The research study conducted by Parry and Willis (2013) is a notable example of how effectively to anchor a study within the mixed methods research literature. These authors referenced 14 works from mixed methods research, incorporating publications from two prominent journals in the field: the *Journal of Mixed Methods Research* and the *International Journal of Multiple Research Approaches*. This extensive citation practice exemplifies the ideal way to integrate and to recognize the comprehensive scope of mixed methods research.

A particularly concerning finding was that a significant portion of the mixed methods narrative inquiry/narrative research[1] studies (19.44%) showed little to no integration between the quantitative and narrative elements. The remaining studies achieved only low-to-moderate levels of integration. This pattern reflects Fetters and Freshwater's (2015) "1 + 1 = 3" integration concept wherein the qualitative and quantitative components/phases are conducted either concurrently or sequentially but are undertaken independently. Consequently, narrative and quantitative findings often are reported separately rather than being synthesized into a cohesive whole.

Unfortunately, the analysis of integration levels across the 36 mixed methods narrative inquiry/narrative research studies indicates that none of the sets of authors fully embraced the more comprehensive integration strategy of full or more complete (i.e., full[er]) integration known as the 1 + 1 = 1 approach (Onwuegbuzie, 2017b, 2023; Onwuegbuzie & Hitchcock, 2019a, 2019b, 2022; see also Natesan et al., 2019; Newman et al., 2015; Onwuegbuzie et al., 2018). Complementing rather than replacing the 1 + 1 = 3 approach, this concept proposes a maximally seamless blending of quantitative and narrative methodologies. Unlike the 1 + 1 = 3 approach, which maintains a clearer separation between these approaches, the 1 + 1 = 1 approach seeks to blur the lines, viewing them as points on a continuum to foster deeper integration. In the context of mixed methods narrative inquiry/narrative research, the 1 + 1 = 1 approach involves replacing the narrative-quantitative dichotomy with a continuum to achieve fuller integration.

As explained by Onwuegbuzie (2022, 2024), this full(er) integration approach is especially beneficial when participants contribute both qualitative (i.e., narrative) and quantitative data, enabling researchers to gain more insight from the combined dataset. However, the prevalent use among the 36 works of the 1 + 1 = 3 model—representing partial integration—suggests a missed opportunity for enhanced cohesiveness. This model's tendency to handle narrative and quantitative data in isolation through monomethod analyses risks fragmenting the data, what we (Onwuegbuzie & Abrams, in press) refer to as the *disintegration of data* at the data analysis

phase for participants who contributed both narrative and quantitative data at the data collection stage. This disintegration, in turn, dilutes the potential cohesiveness and richness of the findings when both types of data are present from the same participants.

Use of the Term "Mixed Methods Narrative Inquiry" and "Mixed Methods Narrative Research". Our comprehensive examination of the extant literature (Onwuegbuzie & Abrams, in press) revealed only four distinct works in which the terms "mixed methods narrative inquiry" (i.e., no hyphen), "mixed-method narrative inquiry" (i.e., method as singular), or "mixed-methods narrative inquiry" (i.e., methods as plural) were explicitly utilized, namely (and chronologically): McGarvie (2020), Sander (2022), Gándara and Rendón-Romero (2023), and Gabay (2023), whose work creates space for future literature to clarify and/or to extend the definition, understanding, and use of mixed methods narrative inquiry. Specifically,

- McGarvie (2020) mentions "mixed-methods narrative inquiry" one time in her Master's thesis—within the abstract—without providing any definition or further details.

- Sander (2022) includes "mixed methods narrative inquiry" in the title of her doctoral dissertation without offering any additional explanation or definition in the document.

- Gándara and Rendón-Romero (2023) use the term "mixed-method narrative inquiry" once in their empirical journal article, also limited to the abstract and without explanation.

- Gabay (2023) features the phrase "mixed methods narrative inquiry" in the title of her empirical journal article, but does not elaborate on it within the text of the article.

Additionally, the combination of "narrative research" and "mixed methods" has appeared in only two master's theses. Specifically, Krukowski (2022) used the term "mixed-methods narrative research" in the abstract without further detail, and O'Shaughnessy (2016) referred to an "embedded mixed methods narrative research design" illustrated in a figure on page 117 of her thesis, but she did not offer any further explanation or definition of this design.

Among the six studies in which the phrase "mixed methods" or its variant (e.g., "mixed-methods") is combined with the phrase "narrative inquiry" or "narrative research" O'Shaughnessy (2016) represents the first documented instance of such usage. Notably, throughout these works, there is a recurring absence of in-depth discussion or definition concerning the integration of mixed methods and narrative techniques. This highlights a clear necessity for a comprehensive definition and detailed exploration of this innovative methodological approach. As such, in what follows, is what we believe is the first formal attempt to define and to explain the concepts of *mixed methods narrative inquiry* and *mixed methods narrative research*.

Mixed Methods Narrative Inquiry and Mixed Methods Narrative Research Defined and Explained

Mixed methods narrative inquiry and mixed methods narrative research can be defined as research approaches in which the principles and practices of mixed methods research are integrated with those of narrative inquiry and narrative research, respectively. These approaches aim to leverage the strengths of both quantitative and narrative inquiry/narrative research approaches to explore and to understand complex phenomena through the systematic collection, analysis, and interpretation of narrative data alongside quantitative data for the purpose of addressing research questions. More specifically, mixed methods narrative

inquiry/narrative research involve integrating the empirical precision yielded by quantitative methods with the depth and contextual richness of narrative inquiry/narrative research, a qualitative approach that focuses on the stories and experiences of individuals—or, in the words of Sandelowski et al. (2009), "balancing numerical precision with narrative complexity" (p. 208).

Mixed methods narrative inquiry/narrative research studies wherein narratives are used to expand quantitative data have the potential to add interpretive richness to the quantitative phase/component of a mixed methods research study. In this way, the narratives make *thick description* (Ryle, 1949) more likely, enabling researchers better to understand and to absorb the context of the underlying experience, behavior, or phenomenon (Ryle, 1971), as is often the goal in qualitative research traditions (Geertz, 1973). Moreover, incorporating personal narratives can enhance the transparency of quantitative data and ensure that quantitative findings are placed in a more appropriate and nuanced context. In this regard, narratives act as catalysts for meaning making, serving as bridges that facilitate communication between quantitative and narrative data. In so doing, they create a novel arena for interpretation, enriching the understanding of data through a synergistic blend of numerical insights and personal stories. This fusion not only deepens the analysis, but also brings a richer, more textured perspective to the research findings.

As such, mixed methods narrative inquiry and mixed methods narrative research are conducted under the recognition of the value of narrative data in capturing the complexity, depth, and context of human experiences while also acknowledging the importance of quantitative analysis for generalization, measurement, and the examination of relationships between/among variables. Mixed methods narrative inquiry/narrative research is particularly valuable in studies aiming to capture the nuances of human experiences, beliefs, attitudes, and behaviors in a comprehensive manner.

Through the integration of narrative inquiry or narrative research within a mixed methods framework, researchers aim to:

- enhance the richness and depth of data analysis by incorporating personal stories and experiences as a fundamental component of the research;

- provide a more nuanced understanding of research phenomena by combining quantitative analysis with the qualitative analysis of narratives, offering insights into both the general trends and the individual variations; and

- facilitate a comprehensive exploration of research questions by leveraging the strengths of both qualitative and quantitative methods, allowing for the investigation of complex issues that might not be fully understood through the single methodological lens of narrative inquiry or narrative research.

At their most basic levels, mixed methods narrative inquiry/narrative research may involve the concurrent or sequential collection of narrative and quantitative data, with the integration of findings in the interpretation phase to provide a holistic view of the research topic. This approach is particularly useful in studies wherein understanding the context, meaning, and personal experiences of participants is as crucial as measuring outcomes or testing hypotheses.

Furthermore, especially when accounting for their unique features, mixed methods narrative inquiry/narrative research distinguish themselves from other qualitative research designs combined with mixed methods research through their specific focus on narratives as both a

source and form of data, and the specific way that they integrate narrative understanding with quantitative analysis. These approaches prioritize narrative data—stories, personal experiences, life histories—as the central qualitative component, seeking to understand how individuals construct and interpret their experiences through narratives, and integrate this understanding with quantitative data to provide a richer, more nuanced perspective of data in light of the research question. Although mixed methods research designs that involve other qualitative research approaches may include qualitative data in various forms—such as observations, interviews, and document analysis—they do not specifically emphasize narrative data or narrative analysis as the primary mode of qualitative inquiry. Their qualitative component might be more varied and not necessarily focused on the structured analysis of stories or narratives. Further, mixed methods narrative inquiry/narrative research can involve the integration of quantitative data with narrative analysis to explore and to interpret the meanings behind numbers. This integration aims to deepen the understanding of quantitative findings by contextualizing them within individuals' lived experiences and narratives, and vice versa. The analysis can involve examining how quantitative trends are reflected in personal stories and how these stories can clarify, confirm, challenge, contradict, or add complexity to statistical findings.

In the case of mixed methods research designs that involve other qualitative research approaches, the integration of qualitative and quantitative data serves to complement, to triangulate, to contradict, to develop, or to expand findings (Greene et al., 1989). Although narrative elements may be present, the qualitative data may not specifically focus on narrative analysis or use narratives as the primary means of interpreting quantitative data.

In addition, in mixed methods narrative inquiry/narrative research, narratives do not merely serve as data; they also are viewed as a theoretical lens through which human experiences and social realities are interpreted. This approach considers narratives as being fundamental to understanding human behavior, culture, and identity, influencing how quantitative data are approached and integrated. Although mixed methods research designs that involve other qualitative research approaches may utilize various theoretical lenses (e.g., phenomenology, grounded theory, or ethnography) to frame their qualitative and quantitative integration, these lenses influence how data are collected, analyzed, and interpreted but do not specifically focus on narratives as the central theoretical framework.

At optimal levels, mixed methods narrative inquiry/narrative research involves the use of full(er) integration approaches—in particular, the $1 + 1 = 1$ integration approach. This approach emphasizes a holistic and seamless integration of narrative and quantitative data, wherein the combination of both types of data leads to a synthesis that offers a more comprehensive understanding of the underlying research problem than either qualitative or quantitative data alone can provide. This approach is distinguished by its deep level of integration, aiming to move beyond merely using one type of data to complement or to augment the other. Instead, it seeks to blend both into a unified analysis and interpretation, wherein the insights from narrative and quantitative data are so interwoven that they form a single, coherent story that is richer and more nuanced than what could be achieved by treating narrative and quantitative data separately or in a merely additive fashion. With this $1 + 1 = 1$ integration approach, the narrative and quantitative data inform and enhance each other throughout the entire research process, thereby helping to yield comprehensive answers to research questions that reflect the complexity of real-world issues.

At their most flexible levels, mixed methods narrative inquiry/narrative research approaches promote methodological pluralism, enabling researchers to use multiple methods representing different qualitative traditions alongside narrative inquiry/narrative research approaches. This flexibility is crucial for addressing complex and complicated questions when narrative inquiry/narrative research approaches by themselves are insufficient. Furthermore, mixed methods narrative inquiry and mixed methods narrative research approaches emphasize flexibility, practicality, and the integration of diverse methods and perspectives. This alignment facilitates a thorough and nuanced understanding of research questions, particularly those involving complex human experiences and social phenomena, by leveraging the strengths of both narrative and quantitative data.

Table 2 provides a comprehensive overview of the distinguishing features of mixed methods narrative inquiry and mixed methods narrative research. It delves into the foundational axioms of ontology, epistemology, and methodology, presenting an overview that delineates the philosophical base upon which these research approaches stand. This table supplements the contrasting exploration of these three core philosophical axioms with 10 critical issues that further characterize these research approaches. These issues comprise rhetoric, nature of knowledge, knowledge accumulation, goodness or quality criteria, values, ethics, inquirer posture, training, qualitative analysis, and quantitative analysis.

Table 2

Underlying Belief Systems Pertaining to Mixed Methods Narrative Inquiry and Mixed Methods Narrative Research and Distinguishing Characteristics

Paradigmatic Element	Narrative Inquiry	Narrative Research
Ontology	Multiple realities (i.e., subjective, objective, intersubjective); rejects traditional dichotomies (e.g., subjectivism vs. objectivism; facts vs. values); high regard for the reality and influence of the inner world of human experience in action; current truth, meaning, and knowledge are tentative and changing.	Multiple realities (i.e., subjective, objective, intersubjective); rejects traditional dualisms (e.g., subjectivism vs. objectivism; facts vs. values); high regard for the reality and influence of the inner world of human experience in action; current truth, meaning, and knowledge are tentative and changing.
	Typically embraces a relativist ontology, viewing reality as constructed by individuals' experiences and the meanings they derive from those experiences. Reality is seen as multiple and subjective, shaped by an integration of personal narratives and quantitative data.	While also acknowledging the subjective nature of reality through narrative components, it might incorporate a more pluralistic ontology, recognizing multiple realities through the integration of narrative analysis and quantitative data that might suggest broader, sometimes more generalizable patterns.
Epistemology	Knowledge is both constructed and based on the reality of the world we experience and in which we live; justification comes via warranted assertability.	Knowledge is both constructed and based on the reality of the world we experience and in which we live; justification comes via warranted assertability.
	Leans towards a constructivist epistemology, wherein knowledge is co-created through the interaction between the	May adopt a pragmatist-based epistemology, focusing on the practical implications of knowledge and the usefulness of integrating

Paradigmatic Element	Narrative Inquiry	Narrative Research
	researcher and participant(s), especially through the sharing and interpretation of stories, alongside quantitative data.	narrative and quantitative data to address complex research questions.
Methodology	Thoughtful/dialectical eclecticism and pluralism of methods and perspectives.	Thoughtful/dialectical eclecticism and pluralism of methods and perspectives.
	Utilizes a methodology that emphasizes the depth and context of individual stories, integrating quantitative data to enhance understanding but prioritizing narrative depth and participant perspective.	Employs a more varied methodology that might include a broader range of narrative sources and quantitative analyses, focusing on how integrating narratives and numerical data can illuminate broader phenomena.
Rhetoric	Use of both impersonal passive voice and technical terminology, as well as rich and thick (empathic) description.	Use of both impersonal passive voice and technical terminology, as well as rich and thick (empathic) description.
	Often employs a personal, reflective, and contextually rich narrative style in presenting narrative and quantitative findings, emphasizing the storytelling aspect.	May use a more analytical and sometimes detached narrative style, depending on the research context, aiming to integrate findings from narrative and quantitative data in a coherent manner.
Nature of knowledge	Intersubjectivity, emic and etic viewpoints; respect for nomological and ideographic knowledge.	Intersubjectivity, emic and etic viewpoints; respect for nomological and ideographic knowledge.
	Sees knowledge as deeply personal, contextual, and shaped by individual experiences and interpretations.	Views knowledge as both personal and social, shaped by individual narratives but also by broader social, cultural, and quantitative patterns.
Knowledge accumulation	Follows dynamic homeostatic process of belief, doubt, inquiry, modified belief, new doubt, new inquiry, etc., in an infinite loop, wherein the person or researcher constantly attempts to improve on past understandings in a way that fits and works in the world in which he or she operates.	Follows dynamic homeostatic process of belief, doubt, inquiry, modified belief, new doubt, new inquiry, etc., in an infinite loop, wherein the person or researcher (and research community) constantly attempts to improve on past understandings in a way that fits and works in the world in which he or she operates.
	Knowledge accumulates through the deep, contextual exploration of narratives, with quantitative data providing additional support and insights.	Accumulates knowledge by integrating insights from personal narratives with broader patterns identified through quantitative analysis, seeking a comprehensive understanding.
Goodness or quality criteria	Trustworthiness, dependability, confirmability, transferability; authenticity. Reliability, internal validity, external validity, objectivity.	Trustworthiness, dependability, confirmability, transferability; authenticity. Reliability, internal validity, external validity, objectivity.

Paradigmatic Element	Narrative Inquiry	Narrative Research
	Quality is assessed based on the depth of narrative understanding, coherence, and authenticity, as well as the integration of quantitative data that support narrative findings.	Quality criteria include the rigor of both narrative and quantitative analyses, the effectiveness of data integration, and the contribution to broader understanding.
Axiology	Takes an explicitly value-oriented approach to narrative inquiry that is derived from cultural values; specifically endorses shared values, such as democracy, freedom, equality, and progress.	Takes an explicitly value-oriented approach to narrative research that is derived from cultural values; specifically endorses shared values, such as democracy, freedom, equality, and progress.
	Highly values participant perspectives, ethical storytelling, and the co-construction of meaning between researcher and participant(s).	Values inclusivity in perspectives, ethical handling of narratives and data, and practical contributions to knowledge.
Ethics	Extrinsic and intrinsic; justification comes in the form of warranted assertability.	Extrinsic and intrinsic; justification comes in the form of warranted assertability.
	Places a strong emphasis on ethical considerations in narrative handling, participant anonymity, respectful representation via the integration of narrative and quantitative data.	Also emphasizes ethical considerations, with a focus on responsibly integrating and presenting both narrative and quantitative data.
Inquirer posture	The researcher often adopts a posture of engagement, reflexivity, and empathy, closely interacting with participants and their stories and quantitative data.	While also engaging, the researcher's posture may be more analytical, focusing on how narratives and quantitative data integrate to address the research question(s).
Training	Requires training in qualitative narrative methods, ethical storytelling, and quantitative methods sufficient to integrate data types. Optimally needs training on how to conduct 1 + 1 = 1 analyses.	Requires a broad training in narrative analysis, quantitative research methods, and mixed methods research design and integration techniques. Optimally needs training on how to conduct 1 + 1 = 1 analyses.
Qualitative analysis	All forms of qualitative analysis, with an emphasis on narrative analysis and its variants (e.g., dialogic narrative analysis, structural narrative analysis, thematic narrative analysis, psychoanalytic narrative analysis, phenomenological narrative analysis, socio-narratology, critical narrative analysis, visual narrative analysis).	All forms of qualitative analysis, with an emphasis on narrative analysis and its variants (e.g., dialogic narrative analysis, structural narrative analysis, thematic narrative analysis, psychoanalytic narrative analysis, phenomenological narrative analysis, socio-narratology, critical narrative analysis, visual narrative analysis).
Quantitative analysis	Descriptive statistics; most, if not all, forms of inferential statistics that lead to internal (statistical) generalizations and external (statistical) generalizations.	All forms of descriptive and inferential statistics.

In presenting the philosophical assumptions and stances pertaining to mixed methods narrative inquiry and mixed methods narrative research, Table 2 acts as a bridge, connecting the philosophical underpinnings with practical research considerations. It serves not just as a reference but as a guide for researchers to understand the nuanced differences and shared principles of these approaches. Through its detailed comparison, Table 2 provides insights into how these approaches navigate the complex terrains of human experience and social phenomena. This table provides a testament to the dynamic and evolving fields of mixed methods narrative inquiry and mixed methods narrative research, inviting researchers to engage deeply with the philosophical and practical dimensions of their work.

Towards a Meta-Framework for Mixed Methods Narrative Inquiry and Mixed Methods Narrative Research

Metaphors play a significant and multifaceted role in research, serving as powerful tools for conceptualizing, understanding, and communicating complex ideas and processes. Their role becomes particularly pronounced and valuable in the context of mixed methods research—including mixed methods narrative inquiry and mixed methods narrative research—wherein the integration of qualitative and quantitative research approaches presents unique conceptual and communicative challenges.

Metaphors in mixed methods research allow researchers to conceptualize abstract concepts and relationships in more tangible terms. By likening unfamiliar concepts to familiar ones, metaphors help researchers and readers alike grasp complex ideas more intuitively. Further, metaphors can aid in the development of theoretical frameworks by suggesting connections and relationships that might not be immediately apparent. They can help structure thinking around a topic, guiding research questions, design, and analysis. Metaphors also are useful for communicating research findings, especially to non-specialist audiences. They can make research more accessible and engaging by relating scientific or technical concepts to everyday experiences. And by encouraging thinking outside conventional boundaries, metaphors can stimulate creativity and insight, leading to innovative approaches and solutions to research problems.

Moreover, in the context of mixed methods narrative inquiry and mixed methods narrative research, metaphors can provide conceptual bridges that help researchers and stakeholders understand how quantitative and narrative methods can be integrated cohesively.

Indeed, because of the novelty and complexity of integrating quantitative and narrative methods, metaphors can help to illustrate how elements stemming from these two approaches come together to form a coherent whole, enhancing understanding of the mixed methods research process inherent in these two narrative-based approaches. Additionally, metaphors can offer a common language, facilitating communication and collaboration across disciplinary boundaries by providing shared terms of reference.

In summary, metaphors can enrich the notion of mixed methods narrative inquiry and mixed methods narrative research by enhancing conceptual clarity, facilitating communication, and bridging diverse methodologies and methods. For these two narrative-based research approaches, wherein the integration of different types of data and approaches is central, metaphors can play a critical role in highlighting the process and potential of methodological integration, making the integration process more understandable and accessible. As explained by Bazeley and Kemp (2012),

Metaphors create images that facilitate understanding, communication, and remembering through using something familiar—such as eating, building, or agriculture—to explain or describe something new or more difficult to comprehend (Bonner & Greenwood, 2005). Metaphors often convey more than the literal meaning: Their implied meanings create new realities for recipients by affecting their perceptions and thus their actions (Krippendorff, 1993)—they are "a device of representation through which new meaning can be learned" (Coffey & Atkinson, 1996, p. 85). (pp. 56-57)

TREE Meta-Framework

With these considerations in mind, via the use of a metaphor, we introduce a meta-framework designed to guide mixed methods narrative inquiry and mixed methods narrative research, characterized by being **T**ransparent, **R**igorous, **E**thical, and **E**quitable (TREE). Inspired by these TREE characteristics—as initially outlined by Corrigan and Onwuegbuzie (2023) for describing a sampling meta-framework within mixed methods research—our metaphorical representation for both mixed methods narrative inquiry and mixed methods narrative research takes the form of a *tree*. We contend that this tree meta-framework encourages the conduct of mixed methods narrative inquiry and mixed methods narrative research studies that align with the TREE principles, symbolically linking the structure and growth of a tree to the foundational qualities of **t**ransparent, **r**igorous, **e**thical, and **e**quitable research (i.e., tree → TREE).

The foundation of this TREE approach is anchored in critical dialectical pluralism—a mixed methods research philosophy pioneered by Onwuegbuzie and Frels (2013) and further elaborated by Onwuegbuzie et al. (in press). This philosophy functions as both a process philosophy and a theory of communication, underscoring the importance of procedural, process, and philosophical justice. It advocates for the integration of universal theoretical knowledge with localized practical knowledge. Specifically, we contend that mixed methods narrative inquiry and mixed methods narrative research studies that are conceptualized, planned, and implemented using our tree meta-framework are better positioned to embody all four of the following TREE (i.e., **T**ransparent, **R**igorous, **E**thical, and **E**quitable) characteristics:

- **T**ransparency, in the context of mixed methods narrative inquiry and mixed methods narrative research, necessitates that researchers articulate their methodological decisions at every step of the research process with maximum clarity, ensuring that another investigator could understand, and replicate and/or build on the process. However, the concept of transparency extends beyond mere replication; it involves a forthright acknowledgment of the researcher's subjective stance (i.e., positionality, as discussed by Peshkin [1988]) and an examination of how this personal perspective influences both their methodological decisions and the eventual outcomes of their study. Moreover, transparency encompasses the elucidation of the rationale driving the research process, alongside a candid discussion of any potential biases that might unduly bias the researchers' methodological decisions. This level of transparency not only fosters trust and integrity within the research process, but also contributes to a deeper understanding and appreciation of the intricate interplay between researcher subjectivity and methodological rigor.

- **R**igor within the domains of mixed methods narrative inquiry and mixed methods narrative research signifies a meticulous and principled approach to decision making throughout the research process, culminating in findings and interpretations that can be

deemed trustworthy. In the lexicon of quantitative research, this trustworthiness parallels concepts of validity (e.g., Benge et al., 2012), ensuring that the research findings accurately and meaningfully reflect the phenomena being studied. On the other hand, the qualitative research tradition speaks to trustworthiness through a different set of terms, as outlined by Lincoln and Guba (1985): (a) truth-value, or credibility, ensuring the findings genuinely represent the reality of the participants; (b) applicability, or transferability, highlighting the extent to which findings can be applied in other contexts; (c) consistency, or dependability, where the research process is logically and systematically executed to produce stable results; and (d) confirmability, ensuring that the findings are the result of the experiences and ideas of the participants, as free as possible from researcher bias. Rigor, therefore, embodies the commitment to a research process that is both methodologically and methodically sound. It bridges the objective and subjective realms to produce results that are legitimate, meaningful, and useful, leading to naturalistic generalizations. As identified by Stake (2005), these naturalistic generalizations allow at least some readers of the empirical report to draw conclusions based on recognizing patterns from the narratives within one situation that they can see fitting into the contexts of their own experiences.

- **E**quitable research emphasizes the imperative to dismantle systemic barriers and biases, thereby granting every individual an equal opportunity to participate in and benefit from research endeavors. To realize this vision, participants within the research ecosystem—encompassing a spectrum from researchers to participants—must cultivate a profound awareness of the challenges faced by those from historically marginalized groups, such as women, persons with disabilities, Indigenous Peoples, racialized minorities, and members of the LGBTQ2+ community. As stated by the Canada Research Coordinating Committee (2021), it is essential to adopt and to implement strategies with a significant impact aimed at overcoming these hurdles. A key aspect of fostering equitableness in mixed methods narrative inquiry and mixed methods narrative research involves ensuring that the study's population is faithfully and accurately mirrored within the research framework, to the greatest extent possible. It is an acknowledgment that, whether due to oversight or more deliberate exclusions, at times, researchers fail to encapsulate the diversity of the population, potentially skewing findings and implications. This also could extend to acknowledging explicitly which groups wield influence—or conversely, which are disadvantaged or favored—by the choices made during the research process. This concept echoes the justice-oriented approaches to assessment discussed by Randall et al. (2021), advocating for a transparent and inclusive methodology that recognizes and addresses the dynamics of power and privilege within research decisions.

- **E**thical research follows strictly the principles of safeguarding others, mitigating any potential harm, and augmenting the overall benefits derived from the research (Israel & Hay, 2006). With respect to both mixed methods narrative inquiry and mixed methods narrative research, ethical considerations extend not only to the entities and individuals selected for inclusion in the study, but also equally to those omitted. This dual focus underscores the importance of conscientious decision-making in research design, emphasizing that the ethical implications of decisions made at every stage of the research process are as critical for those left out of the study as for those selected to participate. By adhering to these principles, researchers navigate the delicate balance between inclusion and exclusion, ensuring that both actions are guided by a

commitment to do no harm (i.e., non-maleficence) and to contribute positively to the collective knowledge (i.e., beneficence). Beyond emphasizing the significance of ensuring non-maleficence and promoting beneficence, researchers conducting mixed methods narrative inquiry and mixed methods narrative research also are encouraged to uphold social justice. This involves acknowledging biases and making impartial decisions guided by universal principles and rules to ensure fair and equitable treatment for all research participants. Fidelity, which signifies loyalty, faithfulness, and commitment, along with professional competence—acknowledging one's limitations and engaging only within one's expertise—are equally crucial. Integrity, defined as fairness, honesty, and respect for others' (narrative) data and its accurate representation, alongside scholarly responsibility, which mandates adherence to best practices thorough documentation and methodological reflection, also play vital roles. Additionally, social responsibility calls for an understanding of the social implications of the research topic, while respecting rights, dignity, and diversity involves striving to eliminate bias and discrimination against participants based on their differences. As discussed by Onwuegbuzie (2017a), collectively, these principles pave the way for researchers conducting mixed methods narrative inquiry and mixed methods narrative research to adopt a *meta-ethical approach*, which embraces both *virtue ethics*—focusing on the moral character of the researcher as the foundation for ethical behavior rather than merely adhering to rules—and *pragmatic ethics*. Pragmatic ethics is predicated on community standards, operating under the belief that communities evolve morally in tandem with the advancement of scientific knowledge.

Tree Metaphor

Imagine wandering into a vast and lush forest where the air is thick with the fragrance of earth and the whispers of life, and where each tree, with its unique form and stature, represents a different approach to understanding the world. Amidst this fertile landscape, there is *one* tree that captures the eye—*a majestic tree*! Its roots, gnarled and ancient, delve deep into the soil, drawing nourishment from the rich tapestry of stories that lie buried beneath the surface—stories of joy and sorrow, of beginnings and ends. This tree, in its towering splendor, is the embodiment of both *mixed methods narrative inquiry* and *mixed methods narrative research*, representing two methodological approaches that support researchers' explorations to understand the human experience in its most intricate forms. It serves as a living metaphor for mixed methods narrative inquiry/narrative research (see Figure 1).

The trunk of this tree, sturdy and resilient, represents the core of narrative inquiry/narrative research: the collection, analysis, and interpretation of personal stories. These stories are not mere anecdotes; they are the essence of qualitative research, rich with the nuances and the textures of lived experiences, emotions, and perspectives. The stories are the voices of individuals, each one unique, yet part of the broader narrative of humanity. Branching out from this solid and robust trunk are numerous limbs and leaves, each representing the diverse methods and techniques that fall under the mixed methods narrative inquiry/narrative research, with each limb reaching toward the sky in its own direction.

Some limbs, leafy and verdant, stretch into the *qualitative domain*, adorned with the vibrant blooms of individual stories and the textured foliage of detailed observations. These are the limbs that sway with the breeze and bend with the wind, flexible and open to the subjective nuances of human experience. Other limbs extend into the *quantitative domain,* lined with the

fruits of quantitative data—the numerical evidence that provides a broad overview of patterns and trends, representing a platform of systematicity, objectivity, and breadth. These limbs offer a view of the forest from above, mapping patterns and trends that emerge when individual stories are woven together in a living and evolving depiction of data. Where the qualitative and quantitative branches intertwine, a unique phenomenon occurs. Here, in the mingling of leaves and twigs, the quantitative and qualitative methods merge, creating a rich canopy of insight. This integration of branches represents the essence of mixed methods narrative inquiry/narrative research, wherein the logic of numbers meets the subjectivity of stories, resulting in a holistic understanding of phenomena. It is at these intersections that the tree's true beauty unfolds, in the harmonious integration of story and statistic, of the individual and the collective. Together, they form a flourishing orchard with a vibrant canopy that shelters a diverse ecosystem of understanding beneath.

Beneath this canopy, in the dappled light that filters through the leaves, researchers gather with excitement (see Figure 1). Armed with notebooks and instruments, they seek to capture the essence of the tree: measuring and describing its height, examining its leaves, listening to the stories whispered by the wind in its branches, and translating the language of the numbers—weaving together the description of narratives with the precision of quantitative data. Their work mirrors the mixed methods narrative inquiry/narrative research process, wherein numbers and narratives are integrated to create a new space—yielding a comprehensive picture of the phenomenon under study.

The leaves of this tree, embellished by sunlight and shadow, represent the myriad findings of mixed methods narrative inquiry/narrative research. Each leaf is a story, a data point, a piece of the puzzle that researchers strive to collect. In this space, every leaf of data is imprinted with qualitative insight, and every story told is framed by the context of broader patterns and trends. This tree teaches us that in the forest of discovery, every whisper of the wind carries the weight of human experiences, and every leaf, whether imprinted with words, images, history, and/or numbers, is a vital part of the story. This tree, with its blend of narrative and number, invites us on a journey of understanding that transcends the limitations of traditional methodologies. And as the seasons change, the tree stands resilient, its leaves turning gold with insights that fall gently to the ground, enriching the soil for generations to come. In this forest of discovery, the tree of mixed methods narrative inquiry/narrative research stands as a testament to the complexity of human experience. It is a living symbol of how blending the measurable with the meaningful can provide a richer, more nuanced understanding of the world around us, honoring the intricate harmony between the universal and the uniquely personal. It reminds us that understanding comes not from separating story from statistic, but from embracing the intricate dance between them, recognizing that the richness of human life lies in the integration of its many parts. Through this approach, we learn to see both the forest *and* the trees, recognizing that each leaf, each branch, and each root has its part to play in the story of life.

Figure 1

The Metaphor of the Majestic Tree Used to Embody Mixed Methods Narrative Inquiry and Mixed Methods Narrative Research

Mixed Methods Narrative Inquiry Designs and Mixed Methods Narrative Research Designs

Research approaches embody whole systems meticulously adopted by researchers as they embark on their research studies. Mixed methods narrative inquiry and mixed methods narrative research represent two such research approaches. Research approaches encapsulate the philosophies, methodologies, and ethical considerations that guide the research process from inception to conclusion. In contrast, embedded within these overarching approaches, research designs act as integral components, conceptualized to drive the study. They encapsulate the carefully conceived plan, the organized structure, and the strategic roadmap that researchers should meticulously devise to navigate their studies, aiming to address research questions in a TREE-like manner. In essence, research designs serve as the foundational

blueprint for the entire research process, offering a detailed and systematic guide that researchers follow to illuminate the paths of inquiry and discovery (Onwuegbuzie, in press-b). This intricate interplay between approaches and designs in the research process not only highlights the depth and complexity of scholarly inquiry, but also underscores the importance of thoughtful planning and execution in the pursuit of knowledge.

Hence, research designs stand as an indispensable facet of research endeavors. This principle holds unwaveringly true for the domains of mixed methods narrative inquiry and mixed methods narrative research. Recognizing their pivotal role, we dedicate the final section of our article to unveiling a typology of research designs specifically tailored for application within both mixed methods narrative inquiry and mixed methods narrative research. Although the assortment of research designs that we present is not exhaustive, our typology has been developed to be broad-ranging and representative, offering a rich array of mixed methods narrative inquiry and mixed methods narrative research designs from which researchers can draw. Each design has been chosen for its potential to illuminate the nuanced relationships between narrative and quantitative elements, thereby enriching the research landscape with diverse methodologies that enhance the depth and breadth of scholarly inquiry.

A Typology of Mixed Methods Narrative Inquiry Designs and Mixed Methods Narrative Research Designs

Both narrative inquiry and narrative research designs can drive, as well as be driven by, monomethod and/or mixed methods research designs. Figure 2 illustrates the case of narrative inquiry/narrative research-driven concurrent research designs. As can be seen from this figure, there are several cases here—ranging from the case involving a qualitative-based narrative inquiry/narrative research design, to some form of a mixed methods-based narrative inquiry/narrative research design, and to an optimal form of mixed methods-based narrative inquiry/narrative research design. As an example of one end of the narrative inquiry/narrative research continuum, a qualitative-based narrative inquiry/narrative research design can be combined with a qualitative research design component involving one or more non-narrative inquiry/narrative research participants that is conducted concurrently (i.e., independently), including one or more of the following qualitative research designs:

- Ethnography
- Autoethnography
- Microethnography
- Grounded Theory
- Case Study
- Phenomenological
- Life History
- Oral History
- Ethnomethodology
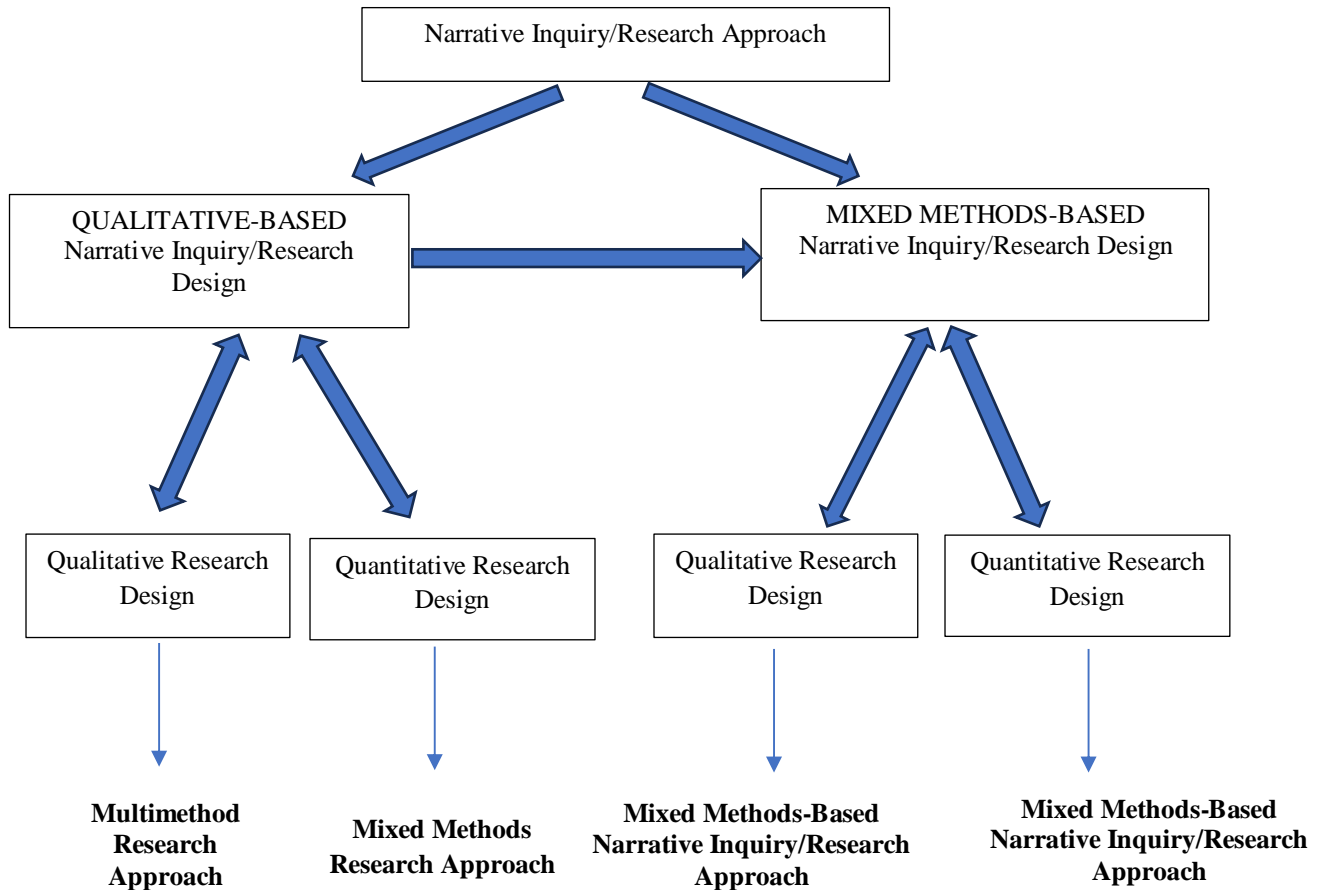- Ecological Descriptive
- Action Research

- Literary Criticism

This combination would mean that, as a whole, the qualitative-based, narrative inquiry/narrative research-driven study represents a multimethod research approach.

Figure 2

Narrative Inquiry/Narrative Research-Driven Concurrent Research Designs

The double-headed arrows indicate a concurrent relationship between the designs at each end of the arrows.

The horizontal single-headed arrow indicates a continuum going from qualitative-based narrative inquiry/narrative research designs to mixed methods-based narrative inquiry/narrative research designs.

The research designs in uppercase represent the more dominant research designs.

Alternatively, at this same end of the narrative inquiry/narrative research continuum, a qualitative-based narrative inquiry/narrative research design can be integrated with a quantitative research design component involving one or more non-narrative inquiry/narrative research participants that is conducted concurrently, including one or more of the following quantitative research designs:

- Historical (e.g., Historiography)

- Descriptive

- Correlational

- Pre-experimental
  - one-shot case study
  - one-group pretest-posttest design
  - static-group comparison design

- Quasi-experimental
  - nonequivalent control group design
  - time series design
  - multiple time series design
  - counterbalanced design

- Experimental (Randomized Control Designs)
  - pretest-posttest group design
  - posttest only group design
  - Solomon four-group design
  - cross-over trial
  - single case study

(For a comprehensive list of quantitative research designs with explanations, please see Appendix B [pp. 371-379] of Onwuegbuzie & Frels, 2016.) Integrating these components would position the entire study, grounded in qualitative-based narrative inquiry/narrative research, within the broader framework of a mixed methods research approach.
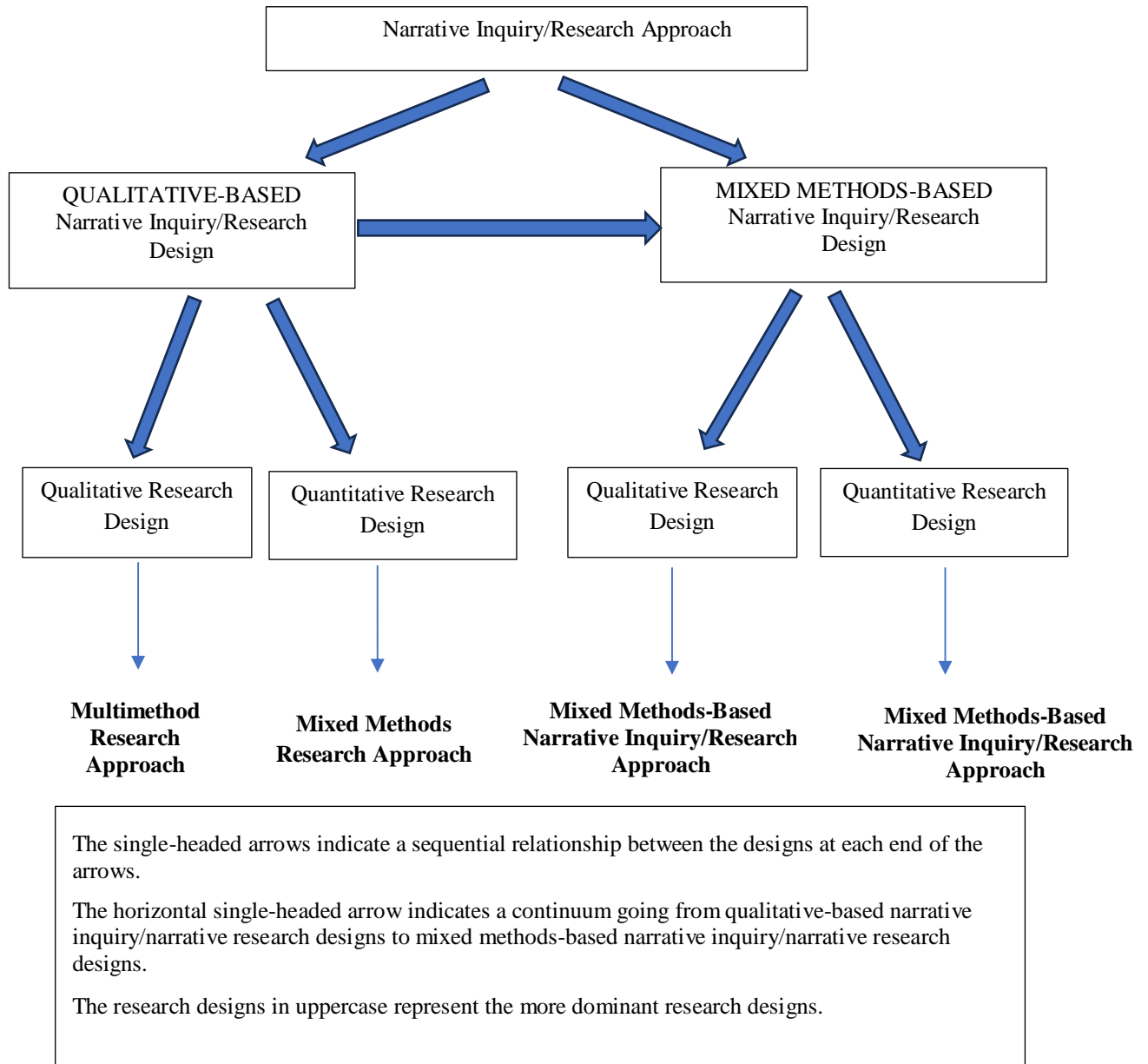
As an example of the other end of the narrative inquiry/narrative research continuum, a mixed methods-based narrative inquiry/narrative research design can be combined with a qualitative research design (e.g., from the list provided earlier in this section) component involving one or more non-narrative inquiry/narrative research participants that is conducted in a concurrent manner.

Whereas the designs that are combined in Figure 2 are conducted independently (i.e., concurrently)—which we refer to as *narrative inquiry/narrative research-driven concurrent research designs*—qualitative-driven narrative inquiry/narrative research designs also can be integrated with other research designs, creating a resultant research framework that is influenced, at least partially, by the preceding narrative inquiry/narrative research phase. We term these integrated approaches as *narrative inquiry/narrative research-driven sequential research designs*, as illustrated in Figure 3. In these designs, data collection, data analysis, and data interpretation conducted during the initial narrative inquiry/narrative research phase play a crucial role in shaping the direction of the second monomethod phase, as well as any subsequent phases that might occur.

Figure 3

Narrative Inquiry/Narrative Research-Driven Sequential Research Designs

As depicted in Figure 3, at one extreme of the narrative inquiry/narrative research spectrum, a qualitative-oriented narrative inquiry/narrative research design can pave the way for either a subsequent qualitative research phase or a quantitative research phase. The former scenario results in a multimethod research approach, whereas the latter leads to a mixed methods research approach. Conversely, when a mixed methods narrative inquiry/narrative research design precedes, it also can set the stage for either a subsequent qualitative research design phase or a quantitative research design phase. In both cases, this sequence results in a research

approach that remains grounded in mixed methods narrative inquiry/narrative research principles.

Beyond serving as the foundation for subsequent stages of a study, narrative inquiry/narrative research designs can bolster both monomethod research designs and mixed methods research designs. Within such frameworks, the monomethod component/phase or the mixed methods component/phase of the study emerge as the prevailing elements. The dominant monomethod research design component/phase can manifest either as a qualitative research design, thereby being qualitative-driven, or as a quantitative research design, hence being quantitative-driven.

Figure 4 depicts what we term as *qualitative-driven embedded concurrent narrative inquiry/narrative research designs*. In these configurations, the qualitative component takes precedence as the study's primary research component/phase. The narrative inquiry/narrative research component/phase, which, according to our framework, can vary from a purely narrative inquiry/narrative research design to various levels of mixed methods-based narrative inquiry/narrative research designs, including an optimal mixed methods variant, unfolds simultaneously. In one variation, the primary qualitative research design (e.g., any from the previously mentioned list in this section) operates in tandem with a qualitative-oriented narrative inquiry/narrative research design, all within a multimethod research strategy. Alternatively, in another variation, the leading qualitative research design component/phase is paired with a mixed methods-based narrative inquiry/narrative research design phase, leading to either a multi-mixed methods research approach (involving a partial integration of multiple methods and mixed methods approaches) or a meta-methods research approach (entailing a full integration of multiple methods and mixed methods research approaches).

Figure 4

Qualitative-Driven Embedded Concurrent Narrative Inquiry/Narrative Research Designs
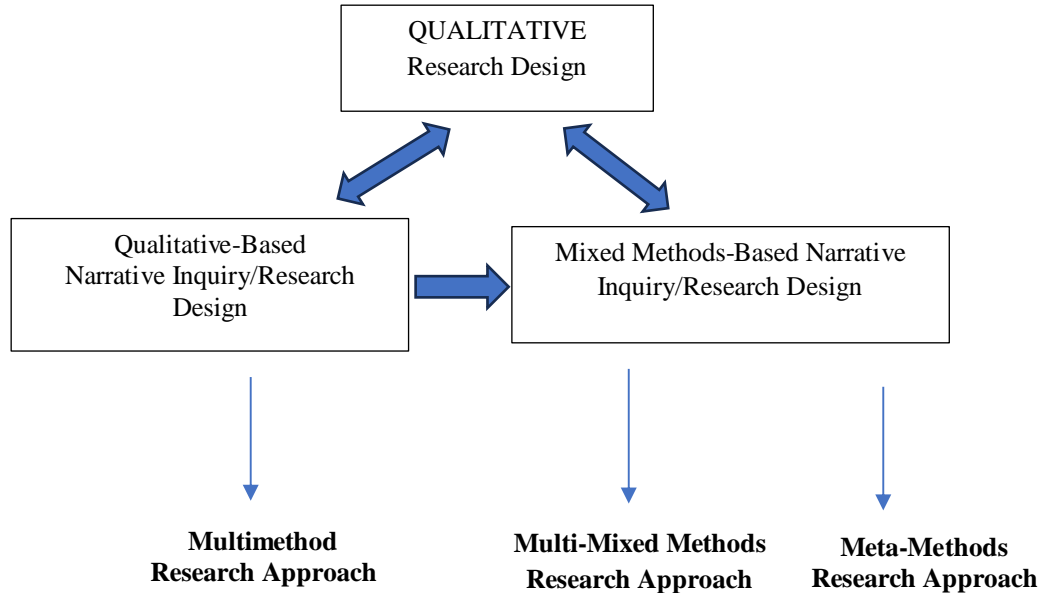
> The double-headed arrows indicate a concurrent relationship between the designs at each end of the arrows.
>
> The horizontal single-headed arrow indicates a continuum going from qualitative-based narrative inquiry/narrative research designs to mixed methods-based narrative inquiry/narrative research designs.
>
> The research design in uppercase represents the more dominant research design.

Figure 5 presents what we designate as quantitative-driven embedded concurrent narrative inquiry/narrative research designs. In these frameworks, the quantitative aspect takes precedence as the principal research phase of the study, with the narrative inquiry/narrative research component/phase unfolding simultaneously. In one variation, the leading quantitative research phase (as outlined previously in this section) is paired with a qualitative-oriented narrative inquiry/narrative research component/phase within the structure of a mixed methods research approach. Alternatively, in a different variation, the primary quantitative research phase occurs in conjunction with a mixed methods-based narrative inquiry/narrative research design, leading to either a multi-mixed methods research approach or a meta-methods research approach, based on the degree of integration between the methodologies.

Figure 5

Quantitative-Driven Embedded Concurrent Narrative Inquiry/Narrative Research Designs

```
                          ┌─────────────────────┐
                          │     QUANTITATIVE    │
                          │   Research Design   │
                          └─────────────────────┘
                           ↙                  ↘
  ┌─────────────────────┐              ┌─────────────────────┐
  │   Qualitative-Based │     →        │  Mixed Methods-Based│
  │Narrative Inquiry/   │              │ Narrative Inquiry/  │
  │Research Design      │              │ Research Design     │
  └─────────────────────┘              └─────────────────────┘
           │                      │              │
           ↓                      ↓              ↓
   Mixed Methods          Multi-Mixed Methods   Meta-Methods
  Research Approach        Research Approach   Research Approach
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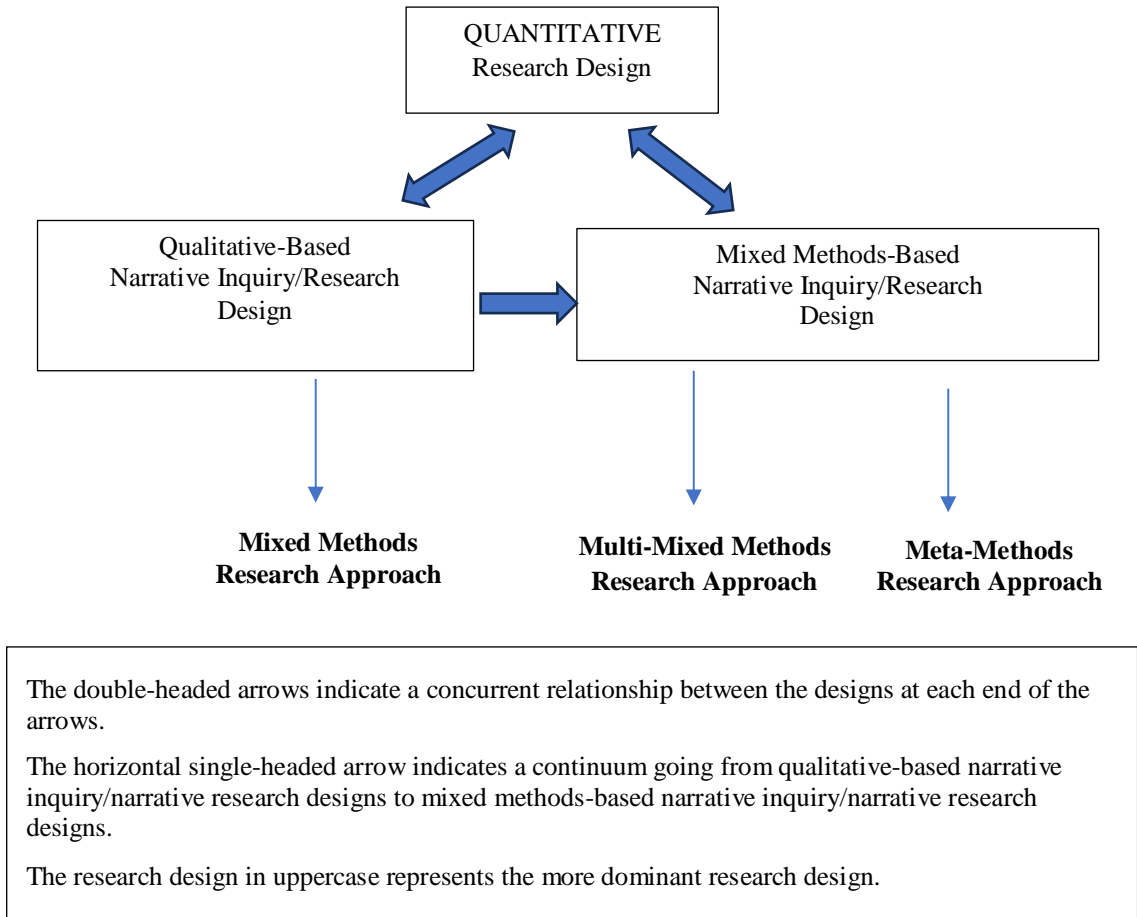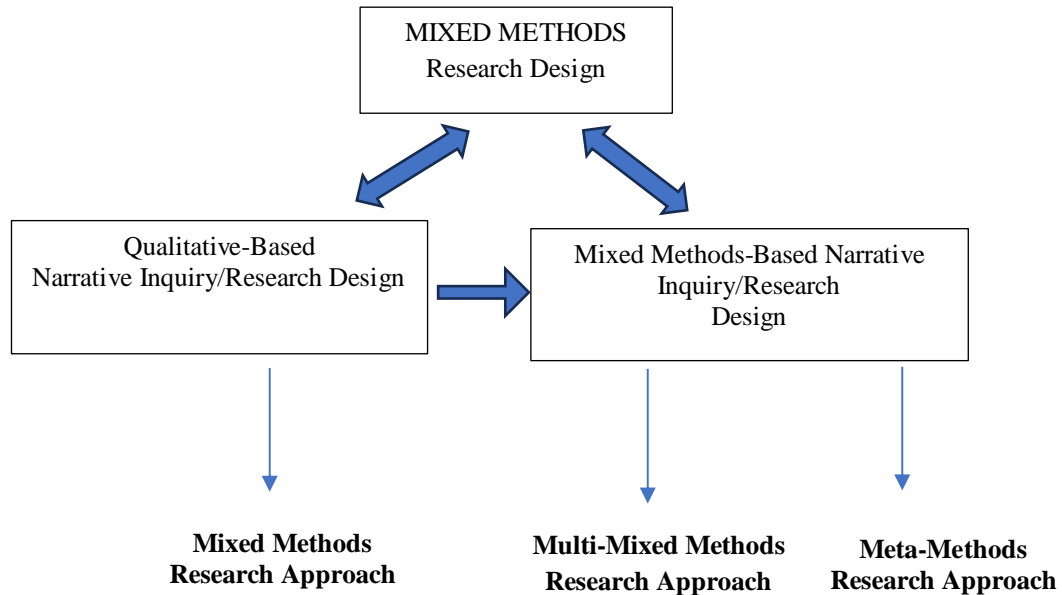| |
|---|
| The double-headed arrows indicate a concurrent relationship between the designs at each end of the arrows. |
| The horizontal single-headed arrow indicates a continuum going from qualitative-based narrative inquiry/narrative research designs to mixed methods-based narrative inquiry/narrative research designs. |
| The research design in uppercase represents the more dominant research design. |

Figure 6 demonstrates what we term as *mixed methods-driven embedded concurrent narrative inquiry/narrative research designs*. In these configurations, the mixed methods component emerges as the study's leading research component/phase, with the narrative inquiry/narrative research component/phase unfolding simultaneously. In one instance, the primary mixed methods research phase is conducted concurrently with a qualitative-oriented narrative inquiry/narrative research phase, all within the framework of a mixed methods research approach. Alternatively, in a different instance, the leading mixed methods research component/phase is conducted alongside a mixed methods-based narrative inquiry/narrative research phase, resulting in either a multi-mixed methods research approach or a meta-methods research approach, contingent on the extent of methodological integration.

Figure 6

Mixed Methods-Driven Embedded Concurrent Narrative Inquiry/Narrative Research Designs

The double-headed arrows indicate a concurrent relationship between the designs at each end of the arrows.

The horizontal single-headed arrow indicates a continuum going from qualitative-based narrative inquiry/narrative research designs to mixed methods-based narrative inquiry/narrative research designs.
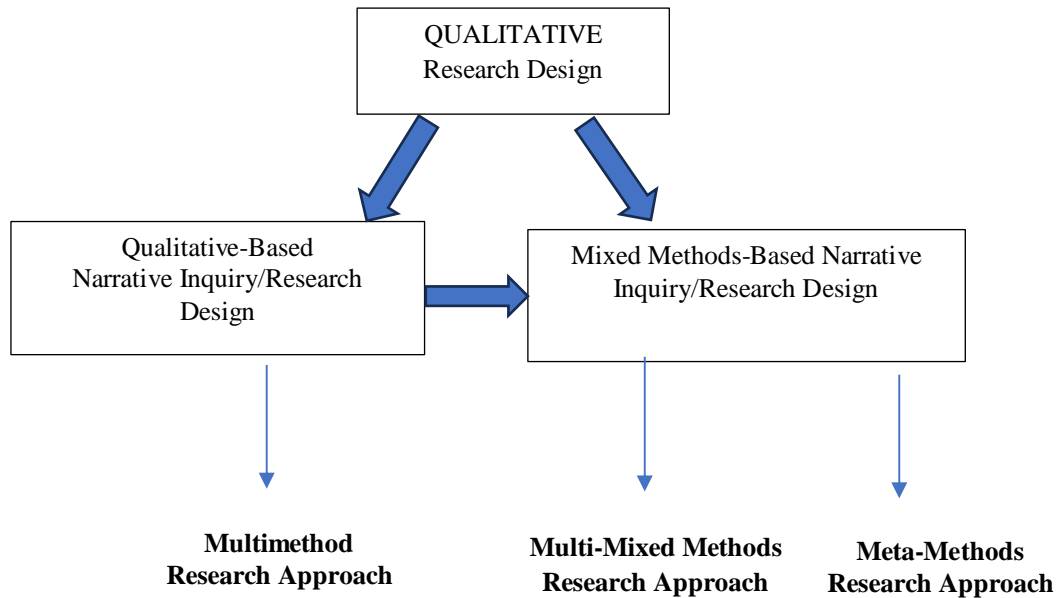
The research design in uppercase represents the more dominant research design.

Figure 7 showcases what we describe as *qualitative-driven embedded sequential narrative inquiry/narrative research designs*. Within these designs, the qualitative component is the foremost research component/phase of the study, with the narrative inquiry/narrative research phase following in sequence. In one approach, insights gained from the initial qualitative research phase—data collection, data analysis, and data interpretation—serve to guide a subsequent phase that employs a qualitative-oriented narrative inquiry/narrative research design, all within the scope of a multimethod research approach. Alternatively, the insights from the primary qualitative research phase could lead to a phase utilizing a mixed methods-based narrative inquiry/narrative research design, culminating in either a multi-mixed methods research strategy or a meta-methods research strategy, contingent upon the degree of methodological integration.

Figure 7

Qualitative-Driven Embedded Sequential Narrative Inquiry/Narrative Research Designs

The single-headed arrows indicate a sequential relationship between the designs at each end of the arrows.

The horizontal single-headed arrow indicates a continuum going from qualitative-based narrative inquiry/narrative research designs to mixed methods-based narrative inquiry/narrative research designs.
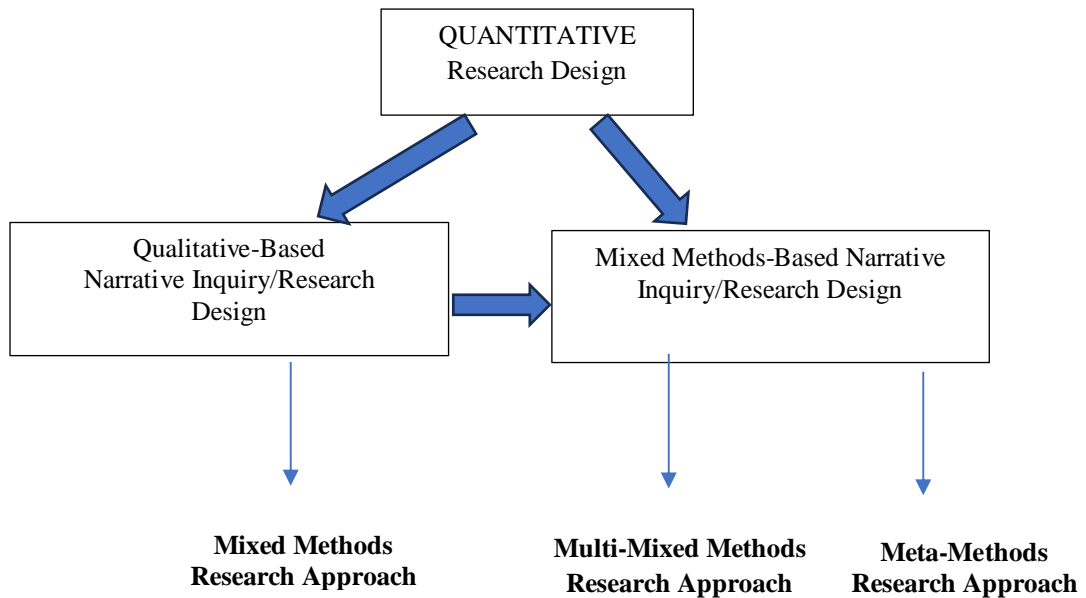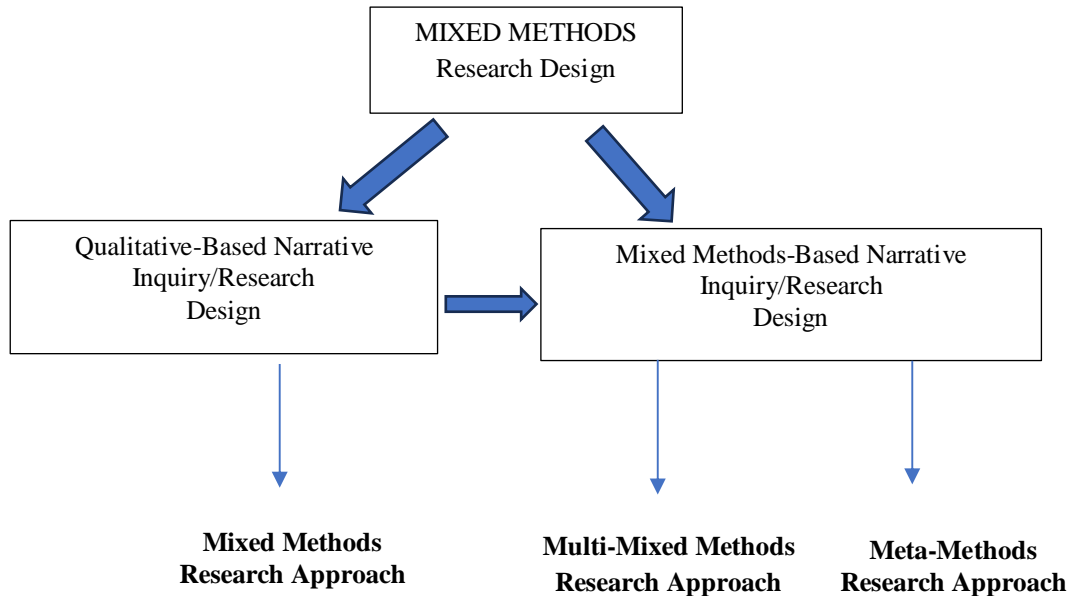
The research design in uppercase represents the more dominant research design.

Figure 8 displays what we categorize as *quantitative-driven embedded sequential narrative inquiry/narrative research designs*. In these frameworks, the quantitative component/phase serves as the primary research component/phase, with the narrative inquiry/narrative research component/phase unfolding in a sequential manner. In one model, insights derived from the initial quantitative research phase—through data collection, analysis, and interpretation—act as a foundation for a subsequent phase that involves adopting a qualitative-oriented narrative inquiry/narrative research design, all situated within a mixed methods research approach. Alternatively, the foundational quantitative research phase could pave the way for a phase that engages a mixed methods-based narrative inquiry/narrative research, leading to either a multi-mixed methods research approach or a meta-methods research approach, contingent on the extent of methodological integration.

Figure 8

Quantitative-Driven Embedded Sequential Narrative Inquiry/Narrative Research Designs

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                          ┌──────────────────────┐
                          │     QUANTITATIVE     │
                          │   Research Design    │
                          └──────────────────────┘
                           ↙                    ↘
        ┌──────────────────────┐      ┌──────────────────────────┐
        │   Qualitative-Based  │  →   │ Mixed Methods-Based      │
        │ Narrative Inquiry/   │      │ Narrative Inquiry/       │
        │   Research Design    │      │   Research Design        │
        └──────────────────────┘      └──────────────────────────┘
                 │                        │              │
                 ↓                        ↓              ↓
        Mixed Methods           Multi-Mixed Methods   Meta-Methods
      Research Approach         Research Approach    Research Approach
```

The single-headed arrows indicate a sequential relationship between the designs at each end of the arrows.

The horizontal single-headed arrow indicates a continuum going from qualitative-based narrative inquiry/narrative research designs to mixed methods-based narrative inquiry/narrative research designs.

The research design in uppercase represents the more dominant research design.

Figure 9 depicts what we identify as *mixed methods-driven embedded sequential narrative inquiry/narrative research designs*. In these configurations, the mixed methods component/phase takes precedence as the primary phase of the research, followed by the narrative inquiry/narrative research component/phase in a sequential order. In one approach, the insights from the initial mixed methods research component/phase—encompassing data collection, analysis, and interpretation—set the stage for a subsequent phase that utilizes a qualitative-oriented narrative inquiry/narrative research design, all situated within a broader mixed methods research approach. Alternatively, the foundational mixed methods research phase could lead to a subsequent phase employing a mixed methods-based narrative inquiry/narrative research design, resulting in either a multi-mixed methods research approach or a meta-methods research approach, contingent on the degree of methodological integration.

Figure 9

Mixed Methods-Driven Embedded Sequential Narrative Inquiry/Narrative Research Designs

As has been the tradition, a researcher can use a mixed methods narrative inquiry approach or a mixed methods narrative research approach without using a specific research design. However, as can be seen, conducting a methods narrative inquiry/narrative research design alongside another research design can allow a researcher to ask more complicated and complex research questions. Moreover, it should be noted that a researcher of narrative inquiry/narrative research studies can include multiple research designs. Indeed, adapting Greene et al.'s (1989) conceptualization of the purpose of mixing quantitative and qualitative approaches, a narrative inquiry/narrative research design can be integrated with one or more monomethod and/or mixed methods research designs for the following purposes:

- triangulation (i.e., comparing findings from the qualitative-based narrative inquiry/narrative research design/mixed methods-based narrative inquiry/narrative research design with the results from the qualitative research design[s]/quantitative research design[s]),

- complementarity (i.e., seek elaboration, enhancement, illustration, and clarification of the findings from one strand [e.g., qualitative-based narrative inquiry/narrative research design/mixed methods-based narrative inquiry/narrative research design]

with results from the other strand [e.g., qualitative research design[s]/quantitative research design[s]]),

- development (i.e., use the results from one strand [i.e., research design] to help inform the other strand),

- initiation (i.e., discover paradoxes and contradictions that emerge when findings from the two or more strands [i.e., research designs] are compared that might lead to a re-framing of the research question), and

- expansion (i.e., expand breadth and range of a study by using one or more strands [i.e., research designs], alongside a narrative inquiry/narrative research design, for different study phases).

Therefore, as can be seen, there are numerous designs available for researchers to conduct mixed methods narrative inquiry and mixed methods narrative research.

We will end this section on mixed methods narrative inquiry designs and mixed methods narrative research designs, covered in Figures 2-9, by emphasizing our recommendation for the 1 + 1 = 1 integration approach. We advocate using this approach whenever possible so that full(er) integration of narrative and quantitative elements can be achieved.

Conclusions

The exploration of mixed methods narrative inquiry and mixed methods narrative research culminates in a compelling argument for a TREE-oriented meta-framework, underscoring the critical roles of transparency, rigor, equitableness, and ethicality. Through a meticulous review of the literature and ensuing mixed methods analysis of the 36 works representing either mixed methods narrative inquiry or mixed methods narrative research over a 64-year period—representing less than 1% of all narrative inquiry and narrative research studies published to date—this article underscores the scant integration of narrative approaches within mixed methods research, revealing a landscape ripe for methodological innovation. By championing a tree metaphor to illustrate the integration of narrative and quantitative methodologies, we have illuminated a path forward that promises a richer, more nuanced and textured understanding of entangled human experiences. This forward-thinking approach not only enriches the academic discourse, but also sets a pragmatic and ethically grounded framework for future research endeavors.

Note

[1] Please note that, here, and for the remainder of the article, by using the "/" in "narrative inquiry/narrative research" and in "Narrative Inquiry/Narrative Research" in Figures 2-9, we are *not* implying in any way that narrative inquiry and narrative research can or should be used interchangeably. Rather, our use of the "/" indicates throughout that we treat narrative inquiry or narrative research as separate approaches.

References

Bakhtin, M. (1981). *The dialogic imagination: Four essays* (C. Emerson & M. Holquist, Trans.). University of Texas Press.

Bazeley, P., & Kemp, L. (2012). Mosaics, triangles, and DNA: Metaphors for integrated analysis in mixed methods research. *Journal of Mixed Methods Research, 6*(1), 55-72. https://doi.org/10.1177/1558689811419514

Benge, C. L., Onwuegbuzie, A. J., & Robbins, M. E. (2012). A model for presenting threats to legitimation at the planning and interpretation phases in the quantitative, qualitative, and mixed research components of a dissertation. *International Journal of Education. 4*, 65-124. https://doi.org/10.5296/ije.v4i4.2360. http://www.macrothink.org/journal/index.php/ije/article/view/2360/2316

Berger, P. L., & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Anchor.

Bonner, A., & Greenwood, J. (2005). Producing the magnum opus: A metaphor for nephrology nursing expertise acquisition. *Journal of Advanced Nursing, 51*, 64-72. https://doi.org/10.1111/j.1365-2648.2005.03460.x

Caine, V., Clandinin, D. J., & Lessard, S. (2022). *Narrative inquiry: Philosophical roots*. Bloomsbury Publishing.

Canada Research Coordinating Committee. (2020). Best practices in equity, diversity and inclusion in research. *A guide for applicants to New Frontiers in Research Funds competitions.* Government of Canada. https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/edi-eng.aspx

Clandinin, D. J. (2006). Narrative inquiry: A methodology for studying lived experience. *Research Studies in Music Education, 27*(1), 44-54. https://doi.org/10.1177/1321103X060270010301

Clandinin, D. J. (2022). *Engaging in narrative inquiry*. Routledge.

Clandinin, D. J., Caine, V., & Lessard, S. (2018). *The relational ethics of narrative inquiry*. Routledge.

Clandinin, D. J., & Rosiek, J. (2007). Mapping a landscape of narrative inquiry: Borderland spaces and tensions. In D. J. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 35–75). Sage.

Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data*. Sage.

Cole, M. (1990). Cognitive development and formal schooling, the evidence from cross-cultural research. In L. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology*. Cambridge University Press.

Corrigan, J. A., & Onwuegbuzie, A. J. (2023). Towards sampling designs that are transparent, rigorous, ethical, and equitable (TREE): Using a tree metaphor as a sampling meta-framework in mixed methods research. In C. N. Poth (Ed.), *The Sage handbook of mixed methods research design* (pp. 130-142). Sage.

Crites, S. (1971). Stories of experience and narrative inquiry. *Journal of the American Academy of Religion, 39*(3), 292-311.

Cruz, J., & Kellam, N. (2017). Restructuring structural narrative analysis using Campbell's monomyth to understand participant narratives. *Narrative Inquiry, 27*, 169-186. https://doi.org/10.1075/NI.27.1.09CRU

Devgan, S. (2015). The digital story of 1984: Diasporic Sikhs and the mediated work of memory and emotion. *Journal of Punjab Studies, 22*(2). https://punjab.global.ucsb.edu/sites/default/files/sitefiles/journals/volume22/8-Shruti%20Devgan%2022.2_FINAL.pdf

de Zengotita, T. (2019). *Postmodern theory and progressive politics: Toward a new humanism*. Palgrave Macmillan. https://doi.org/10.1007/978-3-319-90689-8_1

Dray, W. H. (1971). On the nature and role of narrative in historiography. *History and Theory, 10*(2), 153-171. https://doi.org/10.2307/2504290

Fetters M. D., & Freshwater, D. (2015). The 1 + 1 = 3 integration challenge. *Journal of Mixed Methods Research, 9*, 115-117. https://doi.org/10.1177/1558689815581222

Findlay, Y. S. (2018). The creation of a fourth space in narrative inquiry. In *Yearbook of Teacher Education* (pp. 80-91). Masaryk University, Brno, Czech Republic. https://icet4u.org/docs/ICET_Yearbook_of_Teacher_Education_2018.pdf

Frank, A, W. (2010). *Letting stories breathe: A socio-narratology*. The University of Chicago Press.

Frank, A. W. (2012). Practicing dialogical narrative analysis. In J. A. Holstein (Ed.), *Varieties of narrative analysis* (pp. 33-52). Sage.

Freistein, K., & Gadinger, F. (202). Populist stories of honest men and proud mothers: A visual narrative analysis. *Review of International Studies, 46*(2), 217-236. https://doi.org/10.1017/S0260210519000421

Gabay, G. (2023). Nurse-patient interactions in intensive care, transitions along the continuum of hope, and post-discharge management of chronic illness—A mixed methods narrative inquiry. *Frontiers in Public Health, 11*. 1136207. https://doi.org/10.3389/fpubh.2023.1136207

Gándara, Y. L., & Rendón-Romero S. I., (2023). Critical approaches to English language teacher education: A narrative inquiry into trainee teachers' experiences as speakers of English. *Heliyon, 9*(12). e22882. https://doi.org/10.1016/j.heliyon.2023.e22882

Gee, J. P. (1991). A linguistic approach to narrative. *Journal of Narrative and Life History, 1*, 15-39. https://doi.org/10.1075/jnlh.1.1.03ali

Geertz, C. (1973). Thick description toward an interpretive theory of culture. In C. Geertz (Ed.), *The interpretation of cultures* (pp. 3-30). Basic Books.

Gillespie, A., & Cornish, F. (2010). Intersubjectivity: Towards a dialogical analysis. *Journal of the Theory of Social Behavior, 40*, 19-46. https://doi.org/10.1111/j.1468-5914.2009.00419.x

Glen Curran, R. N. (2011). Translating stories of clinical practice into narratives for critical reflection. *International Public Health Journal, 3*(4), 421.

Green, B. L. (2017). *A narrative inquiry into indigenous nurses' experiences of care: A dialogic/performative narrative analysis*. The University of Regina (Canada).

Greene, J. C. (2007). *Mixed methods in social inquiry*. Jossey-Bass.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11,* 255-274. https://doi.org/10.3102/01623737011003255

Hendricks, W. (1973). *Methodology of narrative structural analysis*, *7,* 163-184. https://doi.org/10.1515/semi.1973.7.2.163

Hiles, D., Čermák I., & Chrz, V. (2009). *Narrative oriented inquiry: A dynamic framework for good practice* [Paper presentation]. Narrative & Memory Conference, University of Huddersfield, England. http://psy.dmu.ac.uk/drhiles/pdf's/Hiles-Cermak%20(2008)_%20Narrative%20Oriented%20Inquiry.pdf

Hoagland, M. A. (2000). *Utilizing constructivism in the history classroom*. ERIC Document Reproduction Service (No. ED482436). http://files.eric.ed.gov/fulltext/ED482436.pdf

Israel, M., & Hay, I. (2006). Why care about ethics? In M. Israel & I. Hay (Eds.), *Research ethics for social scientists* (pp. 2-11). Sage.

James, E., & Morel, E. (2018). Ecocriticism and narrative theory: An introduction. *English Studies, 99*(4), 355-365. https://doi.org/10.1080/0013838X.2018.1465255

Kelly, D., & Rashkin, E. (1994). Family secrets and the psychoanalysis of narrative. *Substance, 23*, 144. https://doi.org/10.2307/3684806

Krippendorff, K. (1993). Major metaphors of communication and some constructivist reflections on their use. *Cybernetics & Human Knowing, 2*(1), 3-25.

Krukowski, J. L. (2022). *Mixed methods exploration of low points and wellness in black women*. [Unpublished Master's thesis]. Marquette University.

Labov, W., & Waletzky, J. (1967). Narrative analysis. In J. Helm (Ed.), *Essays on the verbal and visual arts* (pp. 12-44), University of Washington Press. Reprinted in *Journal of Narrative and Life History, 7*(1997), 3-38.

Langellier, K. M. (1989). Personal narratives: Perspectives on theory and research. *Text and Performance Quarterly, 9*, 243-276. https://doi.org/10.1080/10462938909365938

Larty, J., & Hamilton, E. (2011). Structural approaches to narrative analysis in entrepreneurship research. *International Small Business Journal, 29*, 220-237. https://doi.org/10.1177/0266242611401796

Leeds-Hurwitz, W. (2009). Social construction of reality. In S. Littlejohn & K. Foss (Eds.), *Encyclopedia of communication theory* (pp. 892-895). Sage.

Legg, R. (2013). Reviewing the situation: A narrative exploration of singing and gender in secondary schools. *Music Education Research, 15*(2), 168–179. https://doi.org/10.1080/14613808.2012.737774

Leithwood, K., Jantzi, D., & Steinbach, R. (1999). Do school councils matter? *Educational Policy, 13*(4), 467-493. https://doi.org/10.1177/0895904899013004001

Lieblich, A., Tuval-Mashiach, R., & Zilber, T. (1998). *Narrative research: Reading, analysis, and interpretation*. Sage.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

McGarvie, S. (2020). *Attentive amelioration: Developing and evaluating an applied mindfulness programme for psychologists*. [Unpublished Master's thesis]. Rhodes University.

Mertova, P., & Webster, L. (2020). *Using narrative inquiry as a research method: An introduction to critical event narrative analysis in research, teaching and professional practice* (2nd ed.). Routledge.

Natesan, P., Onwuegbuzie, A. J., Hitchcock, J., & Newman, I. (2019). Fully Integrated Bayesian thinking: A mixed methods approach to the $1 + 1 = 1$ formula. *AERA Division D Newsletter*, 10-12. http://www.aera.net/Portals/38/docs/DivD/DNews_current/DivDNewsletter_Spring19.pdf

Newman, I., Onwuegbuzie, A. J., & Hitchcock, J. H. (2015). Using the general linear model to facilitate the full integration of qualitative and quantitative analysis: The potential to improve prediction and theory building and testing. *General Linear Model Journal, 41*(1), 12-28. http://www.glmj.org/archives/articles/Newman_v41n1.pdf

Onwuegbuzie, A. J. (2012). Introduction: Putting the mixed back into quantitative and qualitative research in educational research and beyond: Moving towards the radical middle. *International Journal of Multiple Research Approaches, 6*, 192-219. https://doi.org/10.5172/mra.2012.6.3.192

Onwuegbuzie, A. J. (2017a). Foreword: Conducting qualitative research in the moment. In H. R. Gerber, S. S. Abrams, J. S. Curwood, & A. Magnifico (Eds.). *Conducting qualitative research of learning in online spaces* (pp. xi-xviii). Sage.

Onwuegbuzie, A. J. (2017b, March). *Mixed methods is dead! Long live mixed methods!* [Invited keynote address]. Mixed Methods International Research Association Caribbean Conference at Montego Bay, Jamaica.

Onwuegbuzie, A. J. (2022). Towards full(er) integration in mixed methods research: The role of canonical correlation analysis for integrating quantitative and qualitative data. *Publicaciones, 52*(2), 11-34. https://doi.org/10.30827/publicaciones.v52i2.27664

Onwuegbuzie, A. J. (2023). The $1 + 1 = 1$ and $1 + 1 = 3$ integration formulas in mixed methods research: A poem promoting peaceful and productive co-existence. *Journal of Mixed Methods Studies, 8,* 18-23. https://doi.org/10.14689/jomes.2022.7.X

Onwuegbuzie, A. J. (2024). Matrix researched: Towards full(er) integration in mixed methods and multiple methods research via a meta-matrix approach. *Journal of Mixed Methods Studies*, *9*(1), 1-81. https://doi.org/10.59455/jomes.2024.9.1

Onwuegbuzie, A. J. (in press-a). A meta-framework for conducting fully integrated systematic reviews. *Journal of Mixed Methods Studies*.

Onwuegbuzie, A. J. (in press-b). Deconstructing mixed methodologies. *Journal of Mixed Methods Studies*.

Onwuegbuzie, A. J., & Abrams, S. S. (in press). Prevalence of mixed methods narrative inquiry and mixed methods narrative research: A fully integrated systematic review. *Caribbean Journal of Mixed Methods Research*.

Onwuegbuzie, A. J., Abrams, S. S., & Forzani, E. (in press). The many SIDES of critical dialectical pluralism: A meta-philosophy—comprising a research philosophy, educational philosophy, and life philosophy—for addressing social justice, inclusion, diversity, and equity, and social responsibility. *International Journal of Multiple Research Approaches.*

Onwuegbuzie, A. J., & Denham, M. A. (2014). Qualitative data analysis techniques. In L. Meyer (Ed.), *Oxford Bibliographies in education*. Oxford University Press. http://www.oxfordbibliographies.com/view/document/obo-9780199756810/obo-9780199756810-0078.xml

Onwuegbuzie, A. J., & Frels, R. K. (2013). Introduction: Towards a new research philosophy for addressing social justice issues: Critical dialectical pluralism 1.0. *International Journal of Multiple Research Approaches, 7*(1), 9-26. https://doi.org/10.5172/mra.2013.7.1.9

Onwuegbuzie, A. J., & Frels, R. K. (2016). *Seven steps to a comprehensive literature review: A multimodal and cultural approach*. Sage.

Onwuegbuzie, A. J., Frels, R. K., Hwang, E., & Slate, J. R. (2013). Editorial: Evidence-based guidelines regarding the number of citations used in manuscripts submitted to journals for review for publication and articles published in journals. *Research in the Schools, 20*(2), i-xiv.

Onwuegbuzie, A. J., & Hitchcock, J. H. (2019a). Toward a fully integrated approach to mixed methods research via the 1 + 1 = 1 integration approach: Mixed Research 2.0. *International Journal of Multiple Research Approaches*, *11*(1), 7-28. https://doi.org/10.29034/ijmra.v11n1editorial1

Onwuegbuzie, A. J., & Hitchcock, J. H. (2019b). Using mathematical formulae as proof for integrating mixed methods research and multiple methods research approaches: A call for multi-mixed methods and meta-methods in a mixed research 2.0 era. *International Journal of Multiple Research Approaches, 11*(3), 213-234. https://doi.org/10.29034/ijmra.v11n3editorial2

Onwuegbuzie, A. J., & Hitchcock, J. H. (2022). Towards a comprehensive meta-framework for full integration in mixed methods research. In J. H. Hitchcock & A. J. Onwuegbuzie (Eds.), *Routledge handbook for advancing integration in mixed methods research* (pp. 565-606). Routledge.

Onwuegbuzie, A. J., Hitchcock, J. H., Natesan, P., & Newman, I. (2018). Using fully integrated Bayesian thinking to address the 1 + 1 = 1 integration challenge. *International Journal of Multiple Research Approaches*, *10*(1), 666-678. https://doi.org/10.29034/ijmra.v10n1a43

Ortaçtepe, D. (2013). "This is called free-falling theory not culture shock!": A narrative inquiry on second language socialization. *Journal of Language, Identity & Education, 12*(4), 215–229. https://doi.org/10.1080/15348458.2013.818469

O'Shaughnessy, R. (2016). *An exploration of the social and emotional well-being narratives of children who live with a parent with a mental health difficulty*. [Unpublished doctoral dissertation]. University of Galway. http://hdl.handle.net/10379/5809

Palinscar, A. S. (1998). Social constructivist perspectives on teaching and learning. *Annual*

Review of Psychology, *49*, 345-375. http://gsueds2007.pbworks.com/f/Palinscar1998.pdf

Parry, Y., & Willis, E. (2013). Using mixed methods to analyse barriers to primary paediatric health access. *International Journal of Multiple Research Approaches, 7*(2), 237–249. https://doi.org/10.5172/mra.2013.7.2.237

Peshkin, A. (1988). In search of subjectivity—one's own. *Educational Researcher*, *17*(7), 17-21. https://doi.org/10.3102/0013189X017007017

Phoenix, C., Orr, N., & Griffin, M. (2017). Bringing socio-narratology and visual methods to focus group research. In R. S. Barbour & D. L. Morgan (Eds.), *A new era in focus group research: Challenges, innovation and practice* (pp. 325-342). Palgrave Macmillan.

Pitre, N., Kushner, K., Raine, K., & Hegadoren, K. (2013). Critical feminist narrative inquiry: Advancing knowledge through double-hermeneutic narrative analysis. *Advances in Nursing Science, 36*, 118–132. https://doi.org/10.1097/ANS.0b013e3182902064

Randall, J., Poe, M., & Slomp, D. (2021). Ain't oughta be in the dictionary: Getting to justice by dismantling anti-black literacy assessment practices. *Journal of Adolescent & Adult Literacy*, *64*(5), 594-599. https://doi.org/10.1002/jaal.1142

Rhodes, R. A. (Ed.). (2018). *Narrative policy analysis: Cases in decentred policy*. Springer.

Richardson, J. S., Robnolt, V. J., & Rhodes, J. A. (2010). A history of study skills: Not hot, but not forgotten. *Reading Improvement*, *47*, 111-123.

Ricoeur, P. (1990). *Time and narrative* (Vol. 1) (K. McLaughlin & D. Pellauer, Trans.). University of Chicago Press.

Riessman, C. K. (2008). *Narrative methods for the human sciences*. Sage.

Roe, E. (1994) *Narrative policy analysis: Theory and practice*. Cornell University Press.

Rust, C., O'Donovan, B., & Price, M. (2005). A social constructivist assessment process model: How the research literature shows us this could be best practice. *Assessment and Evaluation in Higher Education*, *30*, 231-240. https://doi.org/10.1080/02602930500063819

Ryle, G. (1949). *Concept of the mind*. Hutchinson and Company.

Ryle, G. (1971). *Collected papers. Volume II collected essays, 1929-1968*. Hutchinson.

Saint Arnault, D., & Sinko, L. (2021). Comparative ethnographic narrative analysis method: Comparing culture in narratives. *Global Qualitative Nursing Research, 8*. https://doi.org/10.1177/23333936211020722

Salama, A. H. (2021). Towards a discourse-semantic approach to visual narrative analysis: The case of the BBC news story of Islamic State (IS). *Pragmatics and Society, 12*(2), 189-223. https://doi.org/10.1075/PS.18045.SAL

Sander, K. E. (2022). *Exploring the experiences of Spanish-speaking students with limited or interrupted formal education in newcomer programs in the Midwest: A mixed methods narrative inquiry study*. Unpublished doctoral dissertation]. University of Arkansas at Little Rock.

Sandelowski, M., Voils, C. I., & Knafl, G. (2009). On quantitizing. *Journal of Mixed Methods Research, 3*, 208-222. https://doi.org/10.1177/1558689809334210

Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 189-215). Sage.

Schwandt, T. A. (2007). *The Sage dictionary of qualitative inquiry* (3rd ed.). Sage.

Scribner, S. (1985). Vygotsky's uses of history. In J. Wertsch (Ed.), *Culture, communication and cognition: Vygotskian perspectives*. Cambridge University Press.

Souto-Manning, M. (2014). Critical narrative analysis: the interplay of critical discourse and narrative analyses. *International Journal of Qualitative Studies in Education, 27*(2), 159-180. https://doi.org/10.1080/09518398.2012.737046

Spector-Mersel, G. (2010). Narrative research: Time for a paradigm.. *Narrative Inquiry, 20*, 204-224. https://doi.org/10.1075/NI.20.1.10SPE

Vygotsky, L. (1962). *Thought and language*. MIT Press.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Young, K. (1986). *Taleworlds and storyrealms: The phenomenology of narrative*. https://doi.org/10.2307/541797