Towards a Conceptualization of Mixed Methods Phenomenological Research

Abstract

The most innovative use of mixed methods research (MMR) has been the expansion

of research designs that are rooted in one tradition (i.e., monomethod design) into a

design that incorporates or interfaces with the other tradition. Phenomenological

research methods provide one such example. Indeed, phenomenological research

methods work extremely well as a component MMR approaches. However, to date, a

MM version of phenomenological research has not been formally conceptualized.

Thus, the purpose of this article is two-fold. First, we provide a philosophical

justification for using what we call mixed methods phenomenological research

(MMPR). Second, we provide examples of MMPR in practice in order to underline a

number of potential models for MMPR that can practically be utilized in future

research.

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Objectives or Purposes

For at least three decades, researchers have been debating whether there is functional independence or dependence between the logic of justification and research method (see, for e.g., Reichardt & Cook, 1979), with those who subscribe to the incompatibility thesis (cf. Howe, 1988) claiming that qualitative and quantitative research paradigms, including their corresponding methods, should be kept separate and that they cannot and should not be mixed. However, over the last decade, an increasing number of researchers—specifically, researchers who conduct mixed methods research (MMR)—have operated under the assumption that there is not a one-to-one correspondence between research paradigm and research methods (e.g., Johnson & Onwuegbuzie, 2004; see also Tashakkori & Teddlie, 2003, 2010). Moreover, the growth of this MMR movement has culminated in mixed methods (MM) researchers applying methods, techniques, approaches, concepts, or language associated with one tradition (e.g., quantitative research) to another tradition (e.g., qualitative research). However, undoubtedly the most innovative use of MMR has been the expansion of research designs that are rooted in one tradition (i.e., monomethod design) into a design that incorporates or interfaces with the other tradition. Perhaps the best example of this expansion of monomethod designs is the seminal article by Johnson, McGowan, and Turner (2010), wherein the authors conceptualized a MM version of grounded theory (i.e., which they labeled as "MM-GT"; p. 65), demonstrating that

> Grounded theory can be tailored to work well in any of the 3 major forms of
> mixed methods research (i.e., qualitative dominant, equal status, and
> quantitative dominant). In equal-status MM research, MM-GT works well in

connecting theory generation with theory testing, linking theory and practice, and linking general/nomological description/explanation with idiographic understandings of the human world.

Another qualitative-based design with an even longer tradition is that of phenomenological research (cf. Giorgi, 1970)—which became conceptualized by Edmund Husserl more than 40 years before Glaser and Strauss's (1967) grounded theory. However, to date, a MM version of phenomenological research has not been formally conceptualized. Yet, as we argue within this paper, phenomenological research methods work extremely well as a component of MMR approaches. To this end, the current article has two key purposes. First, we provide a philosophical justification for using what we call mixed methods phenomenological research (MMPR). Second, we provide examples of MMPR in practice in order to underline a number of potential models for MMPR that can practically be utilized in future research.

Theoretical Framework

Phenomenology

Phenomenology as a philosophical research tradition emerged within the early part of the 20th century and was built upon the work of earlier philosophers who discussed human experience as a starting point for philosophy (Todres & Holloway, 2006). During the 20th and early 21st centuries, a number of attempts have been made to define phenomenological philosophy in a way that can be understood by those with or without a background in philosophical thought. One of the most recent and easily comprehensible definitions is provided by Giorgi (2009):

Phenomenology as a philosophy seeks to understand anything at all that can be experienced through the consciousness one has of whatever is "given" –

whether it be an object, a person, or a complex state of affairs—from the

perspective of the conscious person undergoing the experience. (p. 4)

The fundamental aim of phenomenological philosophy is to develop a greater

understanding of individuals' experiences through the consciousness of the

experiencer (Giorgi, 2009). By adopting this approach, the theory is that it will allow

human beings to be understood from *inside* their subjective experiences (Todres &

Holloway, 2006). Therefore, the main emphasis of phenomenological research is to

describe or to interpret human experience as lived by the experiencer in a way that

can be utilised as a source of qualitative evidence. The preliminary concern for the

researcher is to use qualitative data collection techniques to obtain examples of

everyday experiences.

Ultimately, the term *Phenomenology* is broad and encompassing and may be

attributed to both a philosophical movement and a range of practical research

approaches. The academics who identify with phenomenological research approaches

have diverse and often conflicting interests in terms of their interpretation and

application of the underlying philosophy, as well as different views on the future of

phenomenology (Moran, 2000). Broadly speaking, phenomenological enquiry can be

separated into two main streams: descriptive (eidetic) phenomenology, which draws

more heavily on the work of Edmund Husserl (1859-1938) and, more recently,

Amadeo Giorgi; and interpretative (hermeneutic) phenomenology, drawing on the

work of Martin Heidegger (1989–1976) and later Max Van Manen.

Husserl, Giorgi and Descriptive (Eidetic) Phenomenology

Husserl, is credited as being not only the forefather of descriptive

phenomenology, but also the founder of phenomenology generally in the modern

sense of the term (Giorgi, 2009; Spiegelberg, 1994). The essential characteristic of

descriptive or eidetic phenomenology is that it focuses on the descriptions of participants' individual experiences (Creswell, 2007). Husserl termed this universe of what is self-evident through experiences as the *life-world* (Todres & Holloway, 2004), which is also referred to by some phenomenologists as the *lived experience*. Subsequently, the life-world proceeded to become the subject matter of all phenomenological research for Husserl. In relation to the concept of the life-world, Finlay (2008) stated

> In the life-world, a person's consciousness is always directed at something in or about the world. Consciousness is always consciousness *of* something. When we are conscious of something (an 'object') we are in relation to it and it means something to us. In this way, subject (us) and object are joined together in mutual co-constitution. (p. 2)

The preceding quotation refers to the imperative phenomenological concept of intentionality that relates to the manner in which objects exist in an individual's own consciousness. According to Giorgi (2009), who contributed significantly to the advancement of descriptive phenomenology as a method, there are four core characteristics of phenomenological enquiry, the first being intentionality and second being that the research is always initially descriptive. The third characteristic of phenomenological enquiry according to Giorgi is that it uses phenomenological reduction (Giorgi, 2009) which involves the researcher bracketing past knowledge and being sensitive to the implications of the data for the phenomenon being researched (Giorgi, 2009). This phenomenological element involves reducing elements that are intentionally related to consciousness, and focusing on the role of subjectivity (Giorgi, 2009). The fourth and final characteristic is that the *essence* or *bare bones* of what constitutes the phenomena articulated as the structure (Holloway

& Todres, 2003). It describes the common themes or essential parts from within the experience that identify the phenomenon and transcend the experiences of different individuals.

Heidegger, Van Manen, and Interpretative (Hermeneutic) Phenomenology

Whilst Husserl's student Heidegger also professed to using the phenomenological method, his form of enquiry differed significantly from his eminent teacher's. Unlike Husserl, for Heidegger "the meaning of phenomenological description as a method lies in interpretation" (Heidegger, 1962, p. 61). Heidegger also saw description in itself as a form of interpretation because it presupposes engagement with a phenomenon. Ultimately, this approach puts less emphasis on the phenomenological attitude and reduction and applies more focus to the researcher's interpretations of an individual's life world and the individual's natural orientation (Van Manen, 1990) to the phenomena. However, despite these differences, descriptive and interpretive phenomenology are often referred to interchangeably, without questioning any distinction between them.

As previously stated, phenomenology is a broad term relating to a philosophical movement as well as a range of practical research approaches. For the purposes of the current study, we will use the term phenomenology to refer to phenomenological research approaches; however, it is important to recognise that a number of other qualitative methods draw upon phenomenological philosophy without actually being a phenomenological method such as ethnomethodology and action research. Although these methods are not the focus of the current paper, there is a need for further academic enquiry that considers how researchers can use these approaches in combination with complementary research methods.

Mixing Phenomenology

One of the key criticisms of mixed methods research is that it is often adopted uncritically by researchers, who pay little attention to the paradigmatic differences between methodological approaches (Sale, Lohfield, & Brazil, 2002). Although it is widely acknowledged within the field of MMR that paradigms do not always lead to particular research methods (Johnson & Onwuegbuzie, 2004), it is generally accepted that certain methods fit better within complementary paradigms; therefore, consideration of traditional paradigms should be made by researchers prior to them outlining their philosophical standpoint (Johnson et al., 2010). For that reason, a discussion of the underlying paradigmatic differences, and compatibility for postpositivist and phenomenological work will be outlined.

Table 1 presents the ontological, epistemological, and methodological assumptions of postpositivist and phenomenological forms of enquiry. This table highlights a number of philosophical differences between postpositivist and phenomenological enquiry that must be considered prior to a researcher's engagement with MMPR. Most strikingly, the table illustrates that the proponents of the postpositivist paradigm advocate the existence of an objective reality, which is a direct contrast to the traditionally constructivist/interpretivist notion of multiple realities and the phenomenological notion of subjective experience. One way researchers conducting MMR can negotiate these paradigmatic differences is by utilising multiple methods within a single overarching paradigm (Johnson et al., 2010). An alternative approach would be to search for areas of paradigmatic compatibility. Despite having qualitative roots, phenomenology as a method

often is referred to as a scientific approach, which is perhaps less surprising when one considers that the fore founders, Edmund Husserl (1859-1938) and Martin Heidegger (1889-1976), were mathematicians with an appreciation for both object and subject. Therefore, we contend that despite their philosophical differences, the scientific nature of the phenomenological paradigm offers areas of compatibility with postpositivism that help justify the adoption of a MMPR approach by researchers. Because the different streams of phenomenology are grounded in diverse epistemological and ontological assumptions, a separate justification for paradigmatic complementarity will be offered.

Husserl's descriptive phenomenology ultimately aims to make intelligible all objectivity, whilst also respecting the being-value of human subjectivity (Gadamer, 2004). This respectful appreciation of both subject and object highlights the potential philosophical complementarity between phenomenology and more objective forms of enquiry. Explicitly, there are two key characteristics of descriptive phenomenological research that act as areas of compatibility with postpositivist enquiry, the first being the development of a universal structure or essence of lived experience.

Descriptive phenomenologist researchers believe that each lived experience has a "descriptive emphasis" (Todres & Holloway, 2006, p. 181) or features that define a phenomenon most generally. Husserl used the term *essence* or *essential structure* to refer to these experiential commonalities. He contended that by focusing on a specific lived experience in a number of variations, it is possible to identify insights that are common throughout experiences and that can be applied more generally beyond the cases within the study in order to emphasize the universal themes held within the lived experiences. The appreciation that the structure of lived experience may contain concrete details as well as diverse elements reflects the role

of the object within descriptive phenomenological methods and mirrors the ontological assumptions of postpositivism. Although descriptive phenomenology is concerned with divergence as well as commonalities, this acceptance of the objective provides a level of compatibility between this stream of phenomenological enquiry and methods operating within a more scientific paradigm.

The second component of descriptive phenomenological enquiry that acts as an area of compatibility with postpositivist enquiry is the nature of the phenomenological reduction. One of the key epistemological distinctions between postpositivist and interpretive/constructivist enquiry is that postpositivism requires the researcher to remain as objective as is possible so as not to have an impact on the data. Although postpositivists acknowledge that objectivity can merely be approximated, this estimation distinguishes it from other paradigms (Phillips & Burbules, 2000). Whereas traditionally, qualitative researchers view data as the product of interaction between research and participant, descriptive phenomenologists aim to make a conscious effort to minimise the role of the researcher on the data. This attitude of recognising and reducing the role of the researcher is referred to as the scientific phenomenological reduction and is achieved by bracketing (i.e., epoché; Husserl, 1931) past knowledge and reducing aspects that are intentionally related to consciousness (Giorgi, 2009). These similarities arguably provide a justification for combining descriptive phenomenology with quantitative methods concurrently because the epistemological parallels would allow for a single research goal to be identified: the identification of the common features of an experience. This would help justify the triangulation or cross-validation of equivalent quantitative and phenomenological data.

Table 1 demonstrates that whereas postpositivism and descriptive phenomenology share some parallels, there are fewer apparent corresponding characteristics between postpositivism and interpretive phenomenology. Unlike the descriptive stream, interpretive phenomenological researchers view data as a product of the interaction between the participant and researcher. Moreover, data are interpreted by the researcher through their own alternative stream of consciousness, drawing on their valuable expert knowledge. The competing epistemological and ontological assumptions of these paradigms amplifies the philosophical complexity of combination for cross-validation or triangulation when working from multiple world views. Moreover, there is one key quality of interpretive phenomenology that justifies its combination with quantitative methods sequentially for the purposes of development, expansion, complementarity (Greene, Caracelli, & Graham, 1989; Morgan, 1998) or reformed notions of complementarity (Mayoh, Bond, & Todres, 2012, Sale et al., 2002). This feature of interpretive phenomenology is the phenomenological orientation.

In essence, interpretive phenomenological enquiry "seeks to elucidate or make explicit our understanding of human behaviours and actions" (Allen & Jensen, 1990, p. 244); therefore, there is a need to understand what these behaviours or experiences are in order to maximize the potential of this research approach. In order to identify experiences, Van Manen (1990) describes the process of orienting to the phenomenon prior to formulating the phenomenological question. This process depicts the researcher focusing carefully on the question of what possible human experience is to be made topical for phenomenological research. There is, therefore, a strong justification for the adoption of a quantitative preliminary phase in order to identify the most relevant phenomenological experience to be explored using interpretive

phenomenological methods. Moreover, due to the discovery-orientated nature of both

interpretive and descriptive phenomenological enquiry, there is also excellent

rationalization for the implementation of an explanatory quantitative proceeding

phase in order to test theories developed through phenomenological inquiry. That is,

sequential designs are particularly applicable when mixing postpositivist and

phenomenological approaches.

Whilst interpretive and descriptive methods continue to dominate the field, more

recently conceptualised approaches to phenomenological enquiry also provide

potential for mixing. For example, the dialogical phenomenological approach

(Stawarska, 2009) views the participant as the co-researcher, and requires them to

have a significant input in analysis and thematization—consistent with Onwuegbuzie

and Frels's (in press) *critical dialectical pluralism*, wherein rather than the researcher

presenting the findings (e.g., conferences, journal articles), the researcher adopts a

research-facilitator role that empowers the participants to assume the role of

participant-researchers, who, in turn, either present/perform the findings themselves

or co/present/co-perform the findings with the research-facilitator(s).

  Stawarska (2009) states that a dialogical approach can help eliminate the

individualist bias that privileges subjectivity within descriptive and phenomenological

methods. This approach offers further parallels and compatability with the

philosophical assumptions of postpositivism. It also highlights the argument that there

is a need to reduce subjectivity within phenomenological enquiry, another

justification for the mixing of these qualitative methods with more objective research

techniques, yielding intersubjective reality (cf. Morgan, 2007).

  Further justification for the combination of all forms of phenomenology with

complementary methods is provided by the fact that developments of the multiple

phenomenological research approaches are constantly dynamic, mirroring the

evolving world of qualitative research. Garza, (2007) stated that "The flexibility of

phenomenological research and the adaptability of its methods to ever widening arcs

of inquiry is one of its greatest strengths" (p. 338). Ultimately, there is a clear logic of

justification for the philosophical sound mixing of phenomenology with alternative

methods for the purposes of cross-validation, triangulation, and complementarity.

Models for Mixed Methods Phenomenological Research (MMPR)

The following section will draw upon examples from the existing body of

research adopting MMPR and relevant methodological literature in order to present

some potential models for MMPR research.

Quantitative-Phenomenology (Quan-Phen). Johnson, Onwuegbuzie, and

Turner (2007) proposed that there are three major types of MMR: *Equal-status mixed*

research, wherein equal prominence is given to both the qualitative and quantitative

components; *qualitative dominant mixed research*, wherein priority is given to the

qualitative element (in this case phenomenology); and *quantitative dominant mixed*

research, wherein priority is given to the quantitative element (in this case the

complementary method). Traditionally, within qualitatively driven MMR, the

researcher would begin with the predominant qualitative stage and continue with the

complementary quantitative stage (QUAL→quan; Morse, 1991, 2003)—although it is

possible for the qualitative phase(s) to occur after the quantitative phase(s) in a

qualitative dominant study (i.e., quan→QUAL; Morse, 1991, 2003; also see

Onwuegbuzie, Slate, Leech, & Collins, 2007). The theory behind this more

conventional QUAL→quan approach is that sequencing in this manner allows for

theory generation through inductive qualitative research that then can be tested using

deductive quantitative measures. However, a review of the literature into MMPR

specifically—as opposed to MMR in general—revealed that the reverse sequencing (i.e., quan→QUAL) has been a more popular approach for qualitatively driven MMPR (Mayoh & Onwuegbuzie, 2012). This is perhaps due to formerly articulated justification that the essentially focussed nature of phenomenological research requires the researcher to be orientated towards a specific experience prior to data collection taking place. Although this justification is relevant to phenomenological enquiry, it is less likely to apply to other forms of qualitative enquiry where the aim is to remain more open and exploratory when designing the qualitative data collection method.

Within these Quan-Phen studies, preliminary quantitative data collection is used both to feed into the interview schedule by providing orientation and also to help identify participants for the phenomenological phase who can provide information rich experiential accounts (Dean, Hudson, Hay-Smith, & Milosavljevic, 2011; Hamdan-Mansour et al., 2011; Mayoh et al., 2012; Thornton, Baker, Johnson, & Kay-Lambkin, 2011). Thornton et al. (2011) combined a preliminary stage consisting of a quantitative self-report assessment battery with a proceeding phase of phenomenological enquiry drawing upon interpretive phenomenological analysis (IPA). However, their justification for adopting this approach was not orientation, instead they cited that their methodological design allowed them to identify a purposive sample for the second phase, and also gather a more holistic understanding of details and trends through joint discussion. Similarly, in their 2011 study of rural workers experiences of pack pain, Dean et al. used a preliminary questionnaire battery prior to a phase of IPA. They surmised that in addition to providing Stage 2 sample identification, and allowing for a more holistic joint discussion, they were able to use Stage 1 findings to tailor the phenomenological research questions in Stage 2,

arguably a form of phenomenological orientation. Conversely, Mayoh et al. (2012) used a preliminary quantitative phase to orientate a study with a dominant descriptive phenomenological second stage. They argued that all forms of phenomenology require an element of orientation in order to ensure that the most relevant and interesting phenomenon is selected for phenomenological research. They also cited that this approach allowed for a more comprehensive discussion of results. As suggested previously, their justification for mixing was based on reformed notions of complementarity (Mayoh et al., 2012, Sale et al., 2002) as opposed to cross-validation or triangulation (Denzin, 1970; Webb, Campbell, Schwartz, & Sechrest, 1966).

Despite the relative wealth of studies adopting a Quan-Phen model that prioritises the qualitative phase, there are fewer studies using this methodological sequence that prioritize the quantitative phase. Yet, this prioritizing of the quantitative phase has merit because it can provide the research with a deductive theoretical thrust (Morse, 2003). The lack of quantitatively driven (Quan-Phen) MMPR might be due to the complex and time-consuming nature of phenomenological enquiry putting time constraints on complementary quantitative work, relegating it to the inferior, or the inflexible nature of the essence and aims of phenomenological enquiry—to explore lived experience. However, this is still surprising as traditionally sequential MMR that begins with the quantitative data collection phase is termed sequential explanatory work (Creswell, Plano Clark, Gutmann, & Hanson, 2003) and priority is typically given to the quantitative data. Ultimately, quantitatively driven MMPR has much to offer, especially when unanticipated quantitative findings emerge that require unexpected further exploration (Morse, 2003).

Phen-Quan. Although the benefits of using a quantitative stage prior to phenomenological data collection are clear, the more traditional model of quantitative

research proceeding qualitative research also is present within MMPR. Mixed methods research that moves sequentially from exploratory to explanatory carries great potential as qualitative methods naturally *set the stage* for quantitative research used in an explanatory manner to test theories developed through phenomenological enquiry (Robbins & Vandree, 2009). For instance, Robbins and Vandree (2009) described using a qualitatively driven sequential multistrand mixed methods design (Teddlie & Tashakkori, 2006) within their study of suppressed laughter. They utilized dialogical phenomenological findings from the initial phase of the research to design an experimental study to test the hypotheses that had emerged. This model of MMPR allows for a level of breadth as well as depth of data to be achieved within a single study, and can help improve the utility and generalizability of phenomenological findings. It would also ensure that explanatory research is conducted with the appropriate level of contextual relevance by being located within the lived experiences of participants. This model fits with both the discovery orientated nature of the phenomenological research traditions and the traditionally explanatory nature of postpositivist approaches.

Despite there being evidence of qualitatively driven Phen-Quan work in the literature, it is much more difficult to locate examples of quantitatively driven work adopting this sequencing. This is unsurprising because it is also an uncommon approach in MMR generally (Creswell et al., 2003). However, giving priority to the second quantitative phase as opposed to the preliminary phenomenological phase offers alternative benefits. Whilst dicussing MMR generally, Creswell et al. (2003) explain that "Such a design might be undertaken when a researcher intends to conduct a primarily quantitative study, but needs to begin with initial qualitative data collection so as to identify or narrow the focus of possible variables" (p. 182).

Therefore, within qualitatively driven phen-quan MMPR, the preliminary

phenomenologiical phase could be used to identify the essential structure of lived

experience that can then be studied in more breadth quantitatively.

      Phen + Quan. A further potential model for MMPR is one based on the

concurrent nested approach to mixed methods research designs (Creswell & Plano

Clark, 2010; Leech & Onwuegbuzie, 2009). A recent review of the MMPR literature

revealed that the concurrent model is relatively popular within MMPR (Mayoh &

Onwuegbuzie, 2012). Within this model, phenomenological and complementary data

are collected concurrently in order to cross-validate or to confirm findings (Patton,

McIlveen, & Hoare, 2008; Winston, Dunbar, Reed, and Francis-Connolly, 2010). For

example, during their research into mothering occupations, Winston et al. (2010)

collected data from mothers concurrently using the Parental Stress Scale (PSS; Berry

& Jones, 1995), Life Satisfaction Index for Parents (LSI-P; Renwick & Reid, 1992),

and phenomenological interviews. They adopted a descriptive phenomenological

approach that utilised member checks, where participants' transcripts were reviewed

by the participants themselves to ensure they reflected their personal experiences,

thereby increasing descriptive validity (Maxwell, 1992, 2005). The logic behind

member checking is closely related to that of dialogical phenomenology; however,

this technique is used as more of an auditing process than the co-created dialogical

research technique. Despite the differences, like the dialogical method, the aim of

member checks is to help reduce the role of subjectivity, consistent with the

epistemological assumptions of postpositivism. Their rationale for adopting a

concurrent MMPR approach in this study was to mirror the complexity of the

phenomenon being studied, and also to allow for confirmation and cross-validation

(Creswell & Plano Clark, 2010). After the data were collected simultaneously and

independently, the two data sets were compared through the development of matrices and joint discussion. They found that the concurrent approach allowed the qualitative data further to illuminate the qualitative findings by providing specific experiential examples as additional texture.

Although the development of matrices is a popular choice for merging qualitative and quantitative data within concurrent MMR (Creswell & Plano Clark, 2010; Onwuegbuzie & Combs, 2010; Onwuegbuzie & Teddlie, 2003), some researchers are adopting alternative approaches for combining phenomenological and quantitative data. For example, Gupta, Paterson, Lysaght, and von Zweck (2012) demonstrated the cohesion between the data within their concurrent embedded MMPR study of experiences of burnout by presenting a visual display in order to provide a clearer picture of practice issues and coping strategies.

These two studies show that concurrent approaches to MMPR allow for phenomenological and quantitative data to be analysed and presented simultaneously using techniques such as matrices and visual displays. Although arguably these methods can help demonstrate greater cohesion between methodological components and create a more holistic picture of mixed findings than can sequential MMPR, attempts at cross-validation or confirmation of phenomenological with quantitative data may present greater criticism from incompatabilitists and phenomenological purists. Whilst discussing triangulation and cross-validation in MMR Sale et al. (2002) posed the question, "How can the results be similar if the paradigms are supposedly looking at different phenomena?" (p. 47). They justified this by explaining that, philosophically, methods from different paradigms are unable to answer research questions in the same way due to the phenomenon under study failing to be consistent within qualitative and quantitative paradigms. For example, although

a quantitative questionnaire may measure the prevalence of certain behaviors, a qualitative phenomenological approach would provide an in-depth description of lived-experience. This argument is even more relevant when discussing MMPR as the objective of phenomenological enquiry is relatively inflexible and rigid. Ultimately, the aim and essence of all phenomenological work is to explore the nature of human experience; therefore, it is difficult to see how this can be cross-validated—for example, using the PSS, or LSI-P, within Winston et al.'s (2010) study.

Despite the argument against combining quantitative and phenomenological enquiry concurrently, pragmatists such as Howe (1998) would suggest that those conducting MMPR should move forward with whatever methods work, and as authors using this approach report great benefits in terms of cohesion and holistic discussion (Gupta et al., 2012; Winston et al., 2010), this is a compelling justification for this form of MMPR.

They explain how this approach draws focus to the cohesion and contrasts between findings, which ultimately can provide a greater breadth and depth of exploration of phenomenological data.

Qual-Phen, Phen-Qual, or Phen+Qual? Although over the last 20 years scholars have dedicated significant amounts of time to conceptualising MMR, there is still much debate regarding what represents MMR. Specifically, although traditionally some authors have defined MMR as the "collection or analysis of both quantitative and qualitative data in a single study" (Creswell et al., 2003, p. 212), more recently, several researchers have argued that MMR may be used to describe work that uses two or more exclusively qualitative or quantitative approaches within a single study (e.g., Morse & Niehaus, 2009). This argument is based on the idea that data collection methods such as interviews, questionnaires, and observations can take on qualitative,

quantitative, and mixed forms (Johnson & Turner, 2003), and that methods are not necessarily linked to paradigms (Johnson et al., 2010). Furthermore, it is important to consider that there is a range of paradigmatic approaches (Onwuegbuzie, Johnson, & Collins, 2009) as opposed to the often assumed binary conceptualization; therefore, if two or more qualitative approaches have different epistemological and ontological assumptions should this research not be considered mixed? This raises the question of whether research studies that combine phenomenological methods with clinical interviews (Rizq & Target, 2010a, 2010b), discourse analysis (Langridge & Ahern, 2003), arts informed interpretation (Vandermause, 2012), or other traditionally qualitative methods should be considered as MMPR. Methods adopting this approach have demonstrated significant benefits; therefore, an overview of three such studies has been included below in order to start the conversation and to ensure that the discussion is inclusive.

Rizq and Target (2010a, 2010b) described collecting qualitative data using a clinical interview tool, prior to a phase of IPA. Whilst their study involved the mixing of phenomenological with standard interview data, the data from these generic qualitative interviews were coded using benchmark classification scores and, therefore, "falls firmly within the dominant conceptual paradigm of positivism" (Risq & Target, 2010b, p. 462). Risq and Target (2010b) contended that these preliminary standard qualitative data provided an additional step in the study's overall analytic process, which invoked the *triple hermeneutic* that placed the researcher's perspective of the participant's experiences within a relevant theoretical framework. Within this research, these authors not only provided a sound justification for why research that mixes two traditionally qualitative methods should be considered as MMPR, but also

they demonstrated the benefits of the analytic process for combining methods in this manner.

Langridge and Ahern (2003) also provided a description of how MMPR can be used to contextualize lived experiences. Specifically, they described the methodological approach taken in their study exploring advanced nurse specialization. They adopted both a Husserlian descriptive phenomenological and postmodern discourse approach to analyzing sequential interviews in order to contextualize the lived experience in the broader social culture. The researchers concluded that their new generation research study (Streubert & Carpenter, 1995) allowed them to explore a complex phenomenon that could not be adequately understood using a single qualitative method in isolation.

Finally, Vandermause (2012) provided an account of what she described as a transmethodological study, which combined Heideggerian Hermeneutic interpretation with various forms of arts-informed interpretation within a broader interpretive framework. In this study interdisciplinary co-researchers analyzed transcripts from multiple interviews within a single case study using different methods whilst engaging continually with the research participant. Vandermause identified the possibilities of analyzing and interpreting phenomenological data using various methods in order to provide more communicative and accessible research findings.

A Conceptualization of Mixed Methods Phenomenological Research

Using the preceding philosophical and practical discussion, MMPR can be defined as *research that combines phenomenological methods with methods grounded in an alternative paradigm within a single study*. Table 2 presents a framework for MMPR enquiry. This table provides five flexible models for MMPR research moving forward. Researchers are encouraged to select their MMPR model based on the aims

and objectives of their research because each MMPR model has different strengths and weaknesses.

Conclusions

This paper fulfils its objectives of providing a philosophical justification for MMPR, demonstrating the benefits of this approach, and providing models in the form of practical examples. However, the path to the fulfilment of these objectives has not been without obstacles. Although phenomenology is a widely adopted term in qualitative research, there remains disagreement with regards to its definition and conceptualization. Specifically, there is little consensus as to whether it should be regarded as a specific method as opposed to a broader movement or philosophy (Langridge & Ahern, 2003). Similarly, there is significant debate surrounding the conceptualization of MMR, whether it should be constrained to the mixing of qualitative and quantitative methods within a single study (Creswell, 2003) or also should encompass studies that combine different forms of purely qualitative or quantitative methods (Morse & Niehaus, 2009). This paper has aimed at being inclusive in nature by including examples of many forms of MMPR that consider both sides of this MMR argument. Ultimately, this article demonstrates a number of motivations for conducting MMPR including experiential theory generation and testing, orientation towards phenomenological phenomena, exploration of unanticipated findings, improving utility and generalizability, and cross-validation or triangulation. We also propose a clear definition and conceptualisation of MMPR for practical utilisation. We recommend that future research should focus on a more systematic review of the current studies adopting MMPR in order more closely to explore this form of methodology. In any case, we contend that our article represents an important first step towards addressing Johnson et al.'s (2010) call for "researchers

and methodologists [to] explicate how to transfer additional research methods situated

in QUAL or QUAN into *MMR versions*" (p. 75).

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Table 1

The Philosophical Assumptions of Postpostivist and Phenomenological Forms of

Enquiry

	Postpositivism	Descriptive (eidetic) Phenomenology	Interpretive (hermeneutic) Phenomenology
Ontology	An objective reality or truth exists, but can never be interpreted fully.	There are multiple constructions of reality. Objectivity relates to the extent to which description is true to a phenomenon. Although experience is subjective, there are features to any lived experience that are common to all persons who have the experience.	Multiple constructions of reality. Reality is constructed in unique ways depending context and personal frames of reference as individuals engage with the world.
Epistemology	Data are an approximation of objective reality. The ideal of objectivity can only be approximated through taking a critical approach.	Data are based on a subjective reality. The goal of the researcher is to achieve transcendental subjectivity.	Data are based on a subjective reality. These data are produced through the interaction between the participant and researcher, and the researcher's interpretations. Need for orienting framework People cannot abstract themselves from the world.
Axiology	Researcher attempts to remain value free (values must be excluded).	Researcher acknowledges values and bias. The impact of the researcher on the inquiry is constantly assessed so that they do not influence the object of study.	The researcher's values impact the object of study. Expert knowledge on the part of the researcher is valuable.
Methodology	Multiple approaches that may be triangulated.	Methods that focus on obtaining participants descriptions of experience. Variations include *Giorgi's (1985, 2009) Descriptive Phenomenological Method in Psychology.*	Interpretive methods that move beyond the description of core concepts and essences to look for meanings. Variations include *Interpretative Phenomenological Analysis* (IPA; Smith & Osborn, 2003).

Table 2

Models for Mixed Methods Phenomenological Research

Model	Description	Purposes
phen→QUAN or phen→QUAL	Preliminary phenomenological method with priority given to the method from an alternative paradigm.	The preliminary phenomenological stage is used to generate theory about the nature of lived experience that can feed into a larger QUAN QUAL study. This approach is especially useful when the study requires an overall more deductive thrust.
quan→PHEN or qual→PHEN	Preliminary method from an alternative paradigm with priority given to the phenomenology	The preliminary quan/qual phase is used to orientate the predominant PHEN stage to the most relevant and interesting phenomenon. This model is very useful when the study requires an overall more inductive thrust.
QUAN→phen or QUAL→phen	Preliminary method from an alternative paradigm which is also given priority.	The secondary phen stage is used to explore unanticipated QUAN or QUAL findings. This model is especially useful when the study requires an overall more deductive thrust.
PHEN→quan or PHEN→qual	Preliminary phenomenology which is also given priority.	The secondary quan/qual phase is used to help improve the utility and generalizability of phenomenological findings. This approach is very useful when the study requires an overall more inductive thrust.
quan + phen or qual + phen	Concurrent approach. Normally methods have equal priority (however, it is possible to give priority to a single method depending on the overall thrust of the study).	Within this model, phenomenological and complementary data are collected concurrently in order to cross-validate or to confirm findings.