

# Conducting Mode 2 research in HRM: A phase-based framework

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Recent studies in the field of human resource management (HRM) have highlighted that current research is mostly performed and consumed by academics, and is driven by theoretical and disciplinary concerns rather than practical ones. This debate has invoked the need to produce more Mode 2 research in the HRM field, that is, research driven by practical problems that integrate collaborative efforts by academics and practitioners. Yet, guidelines on how academics and practitioners may implement Mode 2 research remain disjointed and incomplete. Our study provides a phase-based collaborative-based framework for the implementation of Mode 2 research in the HRM field, in ways that both academic rigor and practical relevance are achieved. Our framework is informed by a comprehensive review of previous Mode 2 research, within and outside the HRM field. The proposed framework details four macro-phases: the codevelopment of research questions with practitioners; the design of collaborative spaces and mechanisms; the design and management of double-loop iterative research processes; and finally the academic and practice legitimization of Mode 2 outcomes. Our framework has the objective to support HRM researchers and practitioners, as well as relevant institutions and gatekeepers in the design, implementation, education, and assessment of Mode 2 research.

## KEYWORDS

HRM research, Mode 2 research

## 1 | INTRODUCTION

In recent years, an increasing number of studies have advanced the idea that human resource management (HRM) research has a “relevance” problem because its knowledge is rarely adopted by practitioners (Deadrick & Gibson, 2007, 2009; DeNisi, Wilson, & Biteman, 2014; Harley, 2015; Markoulli, Lee, Byington, & Felps, 2017; Yeung, 2011). One reason for this lack of relevance is that HRM research is mostly driven by theoretical problems and keeps practitioners at arm’s length (Fleetwood & Hesketh, 2010; Harley, 2015; Harley & Hardy, 2004). Indeed, research in the field seems guided by “reviewing the literature, identifying gaps, collecting data to test the hypotheses as a means to fill the gap” (Harley, 2015, p. 402). Recently, several calls for new research approaches that put more emphasis on practical problems and solutions and on the engagement of practitioners with more integrated collaborations have been advanced (e.g., Beer, Boselie, & Brewster, 2015; Hayton, 2015; Kaufman, 2015). HRM scholars are

already contributing to this call for change. First, HRM journals and conferences have elicited the use of collaborative networks to link the academic HRM community more closely to HRM practice (Keegan & Francis, 2010; Samnani & Singh, 2013; Zhang, Levenson, & Crossley, 2015). Second, HRM scholars are promoting deep structural and cultural changes, for example, incorporating practitioners in their editorial boards (Cohen, 2007; Latham & Latham, 2003; Starkey & Tempest, 2005; Tushman, O’Reilly, Fenollosa, Kleinbaum, & McGrath, 2007). Third, some HRM scholars are importing and adapting Mode 2 research approaches from the broader management literature (Argyris, Putnam, & Smith, 1985; Bartunek, 2011; Glaser & Strauss, 1967; Rousseau, 2007).

Indeed, management scholars have long lamented the “scientization” of business schools, where “basic knowledge production has become increasingly abstract and decoupled from practical impact” (Shani, Tenkasi, & Alexander, 2017, p. 23). To address this, Gibbons et al. (1994) articulated Mode 2 as a “new” frontier of research.

Academics were recommended to generate more relevant and theory-advancing outcomes by embedding themselves in contexts of application, developing transdisciplinary collaborations, and involving practitioners and stakeholders throughout the research process. These features were originally promoted in contrast with the traditional Mode 1 approach, which emphasizes discipline-based interests, and the separation between researchers and practitioners. This separation has diminished over the years, as numerous commentaries, special issues, conferences, and workshops have produced more cautious claims about the need for Mode 1 and Mode 2 to coexist, rather than antagonize each other (Bresnen and Burrell, 2013; Grey, 2001; Hodgkinson & Starkey, 2011; Mitev & Venters, 2009; Shani & Coghlan, 2014; Starkey & Madan, 2001; Starkey, Hatchuel, & Tempest, 2009; Swan, Bresnen, Robertson, Newell, & Dopson, 2010).

Mode 2 orientations can significantly improve the practical relevance of HR research, once academics become firmly embedded in contexts of application, and practitioners become strongly involved in the research process. HRM academics have indeed shown increasing sympathy for Mode 2 research, once they have also been reassured about its rigor (Hayton, 2015; Zhang et al., 2015). Yet, very few HRM studies have fully and knowingly implemented Mode 2. Cultural and structural barriers do not fully explain the limited diffusion of Mode 2. There is another, more pragmatic explanation, that is, it is still unclear how Mode 2 can be implemented in practice (Bartunek & Rynes, 2014; Bazerman, 2005). Few empirical studies have described the processes, methods, tactics, contingencies, and outcomes of their Mode 2 research; furthermore, recommendations on Mode 2 implementation remain fragmented, dispersed, and contradictory in the field (Amabile et al., 2001; Burgoyne & James, 2006; MacLean, MacIntosh, & Grant, 2002; Marcos & Denyer, 2012; Radaelli, Guerci, Cirrella, & Shani, 2014; Schiele & Krummacker, 2011; Swan et al., 2010). The lack of clarity on its implementation has reverberated with HRM scholars' perception that Mode 2 methods are "often invented, based on experience" (Bresnen & Burrell, 2013, p. 29) and cannot "be subsumed under acknowledged research methods" (Kieser & Leiner, 2009, p. 526). Some have also argued that pursuing Mode 2 is not a "cost-effective" choice for academics to progress their careers, because they require a significant allocation of time and effort and produce uncertain results (Gulati, 2007; Hodgkinson & Starkey, 2011; Pfeffer, 2007).

The present article aims to clarify the main stages required in the implementation of Mode 2 research to meet both scientific rigor and relevance. To do so, we will provide a phase-based framework for the implementation of Mode 2 in practice. This study builds on the numerous fragments of methodological introspection that can be found in the literature within and outside the HRM field, and advances a unifying framework that details relevant phases and tactics during the implementation of Mode 2 research. To "prepare the terrain" for the framework, this article first reviews the key principles of the Mode 2 research orientation and its applications in the HRM field. It then advances and discusses a phase-based framework for the implementation of Mode 2 in HRM research. This article concludes with discussion of some implications for HRM research, practice, and education.

## 2 | MODE 2 RESEARCH: A BRIEF OVERVIEW

The term "Mode 2," formally introduced by Gibbons et al. (1994), incorporates at least six decades of debate on the design of relevant knowledge-creation processes (e.g., Bartunek, 2011; Lewin, 1946; Shani & Coghlan, 2014). This debate has become especially intense in the last two decades, with a significant number of statements about the increasing gap between rigor and relevance (Hessels & Van Lente, 2008; Huff, 2000; Kieser & Leiner, 2009, 2012; Learmonth, Lockett, & Dowd, 2012). These recent debates have loosened certain rigidities as mentioned in Gibbons et al. (1994), for example, by reducing the emphasis on the separation of Mode 2 from Mode 1, and on the primacy of Mode 2; as well as expanding creative possibilities in its implementation and conceptualization (e.g., Marcos & Denyer, 2012; Van de Ven, 2007).

The present article adopts the current state-of-the-art notion of Mode 2, that is, as a confederation of research approaches, which: (a) generate research questions from the context of application; (b) involve practitioners and stakeholders throughout the process of knowledge creation; (c) develop transdisciplinary collaborations; and (d) evaluate the "quality" of its outcomes in terms of their capacity to effect change in the world. The core of Mode 2 is the concept and practice of collaboration. The notion of collaboration in Mode 2 research is more comprehensive than what is denoted by the umbrella expression "collaboration research." Collaboration within collaborative research refers to the engagement of practitioners *at some point* in the research process. Collaboration may be limited to specific activities or be subject to the researchers' control. Mode 2 instead emphasizes that: (a) practitioners should be engaged from the beginning to end of the knowledge-creation process; (b) the relationship with practitioners should not be hierarchical; and (c) the outcomes of the collaborations should be relevant *and* rigorous.

The key advantage of Mode 2 is that it makes it possible to focus on "relevant" research questions, produce "useful" outcomes, and disseminate theories more easily if practitioners are involved *during* the research process (Gulati, 2007; Hodgkinson & Rousseau, 2009; MacLean et al., 2002; Nowotny, Scott, & Gibbons, 2003; Shani & Coghlan, 2014). Notwithstanding those benefits, practitioners' engagement comes with three main drawbacks. First, an overemphasis on "problem relevance" may displace academics' concern for rigor, independence, and quality—so that academia may lose its identity and role in society (Bresnen & Burrell, 2013; Knights, 2008). Second, practitioners' unchecked involvement in the research process negates the principle that investigation should separate from their object of investigation to avoid observation biases (Kilduff, Mehra, & Dunn, 2011; Walsh, Tushman, Kimberly, Starbuck, & Ashford, 2007). Third, academics and practitioners face barriers in terms of language, meaning, and interests that may be irresolvable (Bartunek & Rynes, 2014; Kieser & Leiner, 2009, 2012; Shani, Mohrman, Pasmore, Stymne, & Adler, 2008). Fully recognizing those challenges, early claims that Mode 2 should displace Mode 1 have attenuated, giving way to an increasing consensus that these two knowledge-creation processes should coexist. Studies have indeed shown not only the possibility for Mode

2 to provide theoretical advancements without compromising rigor (Amabile et al., 2001; Bartunek & Rynes, 2014; Hatchuel, 2001; Hodgkinson & Rousseau, 2009; Hodgkinson & Starkey, 2011; Kilduff et al., 2011; Nicolai & Seidl, 2010; Pasmore & Friedlander, 1982; Pettigrew, 2011; Shani & Coghlan, 2014), but also the possibility for Mode 1 and Mode 2 to coexist in the same study/project (e.g., Pasmore & Friedlander, 1982; Swan et al., 2010).

### 3 | MODE 2 IN HRM: PREMISES AND CHALLENGES

The theoretical premises of the HRM field are already favorable to Mode 2. The problem of relevance is at the forefront in HRM scholars' discourses, with several studies calling for an expansion of the conceptual research orientations and methodological tools used by HRM academics (Cohen, 2007; Deadrick & Gibson, 2007, 2009; Gopinath & Hoffman, 1995; Huselid & Becker, 2000; Latham, 2007; Rynes, Giluk, & Brown, 2007; Subramony, 2006; Yeung, 2011; Zhang et al., 2015). The field has started to experiment with diverse knowledge-creation processes (e.g., Harley, 2015; Jackson, Schuler, & Jiang, 2014), discussed "new" principles that partially overlap with Mode 2, and some articles informed by Mode 2 principles have been recently published (for an overview, see Zhang et al., 2015). These principles relate to four key needs of current HRM research. First, the need for more "radical" research questions, assuming that alternative research approaches might develop new theoretical views on traditional issues (Beer et al., 2015, p. 420)—*which might be achieved through research questions generated in the context of application*. Second, the need for greater theoretical cross-fertilization among purely psychological, purely strategic, or purely economic theories (Godard, 2014; Kaufman, 2010; Martín-Alcázar, Romero-Fernández, & Sánchez-Gardey, 2008)—*which might be achieved through transdisciplinary research*. Third, the need for overcoming the common decontextualized view of HRM practices and explaining how they emerge and evolve as a result of local interests and organizational/environmental pressures (Alvesson, 2009; Alvesson & Kärreman, 2007; Guest, 2011)—*which greater embeddedness of research processes in organizations might help to achieve*. Last, the need for better eliciting practitioners' understanding of the relation between HRM and organizational performance, and overcoming strictly the linear views of causality (Boselie, Dietz, & Boon, 2005; Guest, 2011; Wright & Haggerty, 2005)—*which practitioners' direct involvement might help to address*.

Interestingly, the few Mode 2-oriented articles recently published in academic journals were frequently not labeled by their authors as Mode 2 (Harley, 2015; Hessels & Van Lente, 2008). This suggests that while Mode 2 principles are increasingly implemented, the field is still dominated by Mode 1 approaches, and the gatekeepers are still suspicious of Mode 2 (Harley, 2015). This shortage has been explained primarily as a consequence of institutionalized practices, interests, and cultures that work against Mode 2 (e.g., Learmonth et al., 2012; Swan et al., 2010; Walsh et al., 2007). Hence, initiatives to increase Mode 2 research have included funding schemes that privilege research impact(s); conferences; and special issues that provide dedicated

access to Mode 2 research, and revised MBA programs that bring practitioners closer to research (Alferoff & Knights, 2009; Burgoyne & James, 2006; Kilduff et al., 2011; Latham, 2007; Latham & Latham, 2003; Nicolai & Seidl, 2010; Starkey & Madan, 2001; Starkey & Tempest, 2005; Tushman et al., 2007).

Another important barrier relates to the uncertainties of Mode 2 implementation for HRM researchers. Researchers may be uneasy about spending limited available resources on research projects, which might be viewed as inappropriate by the HRM academic community, or irrelevant by practitioners. Particularly, the ways in which Mode 2 orientations are practiced and communicated remain inconsistent with the standards of quality required by gatekeepers of key HRM journals (Bresnen & Burrell, 2013; Cohen, 2007; Godard, 2014; Harley, 2015; Kaufman, 2015; Kieser & Leiner, 2009, 2012; Knights, 2008; Learmonth et al., 2012). The perception that the relevance of Mode 2 comes at the cost of rigor is still a major dominant obstacle in its diffusion.

Even a cursory review of the literature would reveal, however, that Mode 2 can, and needs to, be rigorous to be relevant. Hence, the issue is not that Mode 2 cannot be intrinsically rigorous, but rather that Mode 2 studies have often not been rigorous because the field lacks clear guidance on how to conduct Mode 2 research. A crucial barrier to the diffusion of Mode 2, thus, is the shortage of comprehensive guidelines on the tactics and procedures required to implement Mode 2 rigorously. Guidelines on the implementation of Mode 2 do exist inside (e.g., Zhang et al., 2015) and outside (e.g., Burgoyne & James, 2006; Radaelli et al., 2014; Shani & Bushe, 1987) the HRM field. However, these guidelines tend to focus on either general and macrolevel features of Mode 2 research or, conversely, very specific and microlevel issues. What is missing from the literature, and what we seek to provide in this study, is a structured view of the Mode 2 implementation *process*, that is, which steps are required to perform a reliable Mode 2 process, and which tactics may be used to optimize the chance of its success. Importantly, previous studies already provided numerous insights into the implementation of Mode 2, but they are usually fragmented in different fields of research. We seek to align these fragments in a comprehensive framework.

In doing so, we draw inspiration from the experience of other research approaches and methodologies—for example, case studies, ethnographies, equation modeling, or grounded theory. Proponents of these approaches and methodologies faced similar diffusion challenges and addressed them by producing textbooks, guidelines, and methodological indications that clarified the main steps and tactics of their knowledge-creation processes (Eisenhardt, 1989; Gioia, Corley, & Hamilton, 2013; Klein & Kozlowski, 2000; Van Maanen, 2011; Yin, 2010). Drawing inspiration from these contributions, we advance a phase-based framework that can inform Mode 2 research and address the needs of HRM researchers.

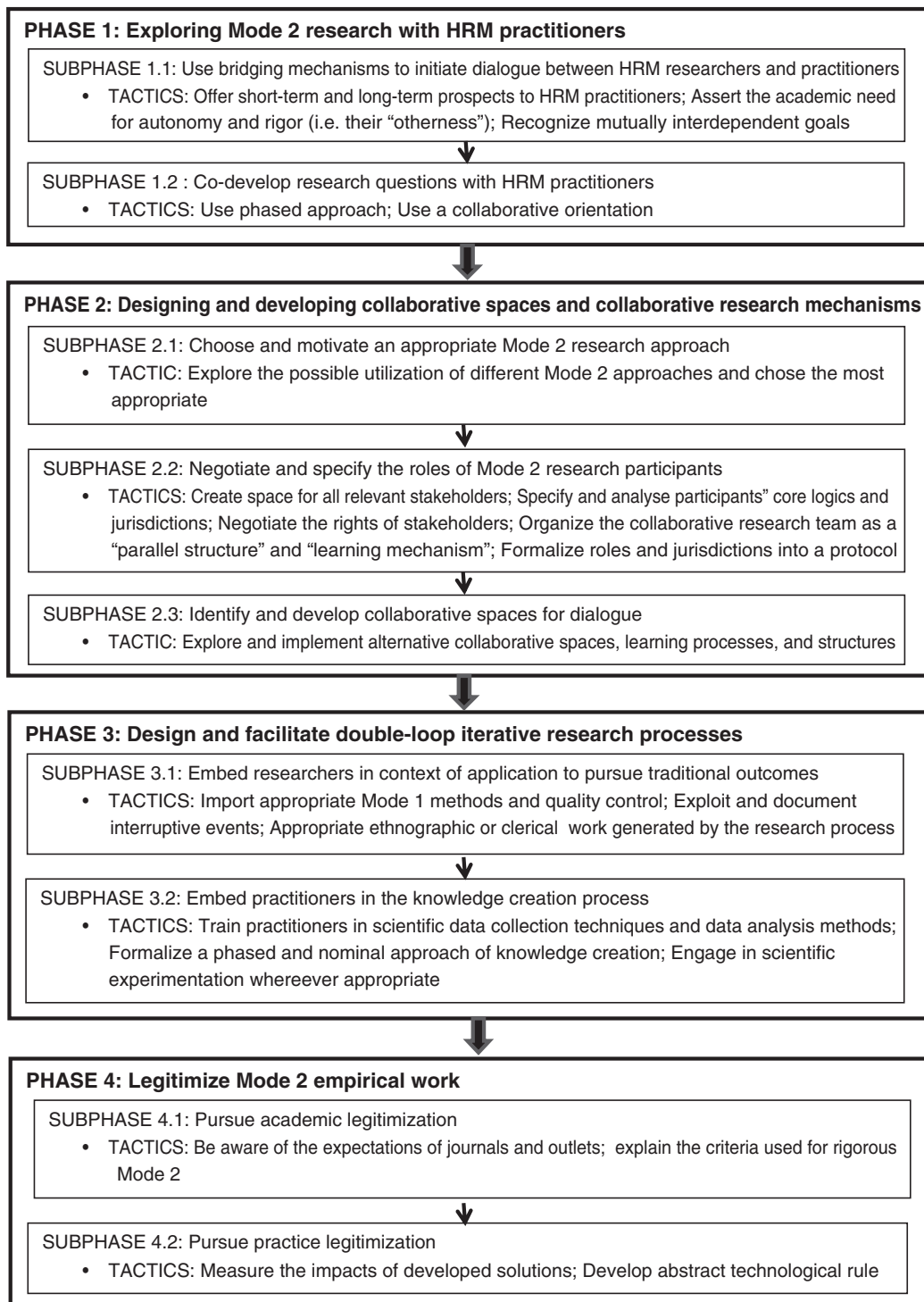
### 4 | MODE 2 RESEARCH IN HRM: TOWARD A FRAMEWORK

Our framework proposes four macrophases in the design and implementation of Mode 2 research in HRM. These phases have been

derived inductively from a review of Mode 2 studies published in the past 20 years. Journals in the HRM field (e.g., HRM, HTMJ, and JHRM) and journals dedicated to methodological analysis (e.g., ORM, JMI) were reviewed. Figure 1 summarizes the phases, subphases, and tactics of the proposed framework.

The framework has three key features. First, it is not intended to be prescriptive, but rather to help HRM academics navigate the ambiguous waters of Mode 2 and generate rigorous research. Second,

it is a midrange conceptualization, standing between the proposition of general principles and values and the focus on specific and hands-on solutions. It does not aim to provide HRM researchers with a formulaic set of procedures (Alvesson & Gabriel, 2013), but rather to highlight specific phases and tactics for Mode 2 implementation. Third, it is informed by practices already in use by some members of the HRM community. The framework may help HRM academics to contextualize and embed those single practices in a consistent system.



**FIGURE 1** Toward a comprehensive framework of Mode 2 research in HRM

## 4.1 | Phase 1: Exploring mode 2 research with HRM practitioners

Exploration is the phase in which HRM academics and practitioners discuss the need for, and suitability of, Mode 2 research. Most HRM research is problematized autonomously and exclusively by scholars, who identify gaps in the literature, define possible research questions, and use available databases, scientific articles, or public information to perform research *about* and *on* HRM-related issues. Scholars interact with practitioners to organize the fieldwork (e.g., survey administration, interviews, or observations) on preestablished research questions (Boxall, Guthrie, & Paauwe, 2016). Mode 2 orientation emphasizes the true collaboration between researchers and practitioners right from the start: the coidentification and articulation of possible research questions. This first phase of the process concerns the early interactions between HRM scholars and practitioners, the aim being to initiate meaningful dialogues, which may generate scientifically interesting and practically relevant research questions. As such, Mode 2 research orientation is about conducting research *with* (instead of conducting research *on*) HRM practices.

### 4.1.1 | Subphase 1.1: Use bridging mechanisms to initiate dialogue with HRM practitioners

Academics and practitioners already have multiple contact points to exchange information and to initiate and enhance collaboration and dialogue. Hyatt et al. (1996) and Anderson (2007) identified 13 possible bridging mechanisms, namely using professional society web pages, notice-boards, and other electronic media; inviting practitioners to give presentations in academia and in graduate education; taking sabbaticals in industry or experiment with internships, placements, and periods of supervised work experience; developing combined research projects involving academics and practitioners to access external funds; developing advisory roles for government commissions, working parties, and industry commissions to catalyze the interest of practitioners; being involved in research councils at national and international levels; managing conferences, professional development events, and keynotes by academics and practitioners; establishing industry-university research consortia; opening editorial boards to practitioners; and liaising with consultancy groups for collaborative research.

Research questions can be cogenerated through a combination of these bridging mechanisms. These arenas can be more than opportunities to initiate conversations with practitioners. They are viewed as collaborative spaces in which HRM researchers and practitioners find new “soulmates” (Hughes, Bence, Grisoni, O'Regan, & Wornham, 2011; Latham, 2007; Starkey & Tempest, 2005; Tushman et al., 2007; Walsh et al., 2007). In particular, relations between HRM researchers and HRM professional associations (e.g., CIPD in the United Kingdom, or SHRM in the United States) have evolved into stable collaborative inquiry networks and research agendas (Thacker, 2012). As to how to the potential of these bridging mechanisms can be exploited, we refer to Alferoff and Knights (2009) and highlight three possible tactics.

First, *academics need to offer short-term and long-term prospects to the practitioners involved*, so as to motivate their participation in a continuing relationship.

Academic-practitioner networks may offer solutions to a number of problems that cannot be easily resolved within their organization. First, there are opportunities for personal development for practitioner members—participating in a knowledge network is seen as a learning opportunity for members who do not have facilities to acquire this kind of training and learning in their own organizations... Second, strategic advantage was seen to be an output of participating in workshops, seminars and master classes. Third, there is sociability or networking for its own sake (2009, p. 134)

Second, just like practitioners, *academics need to assert their autonomy and rigor*, that is, *their otherness* because this is a (re)source of interest for practitioners (Knights, 2008). Practitioners respect and expect academics' diversity and often seek to be assessed through rigorous methodologies and sound theoretical perspectives. Conversations about scientific methods, theoretical models, and evidence bases should be jointly explored and implemented.

Third, *academics and practitioners should recognize mutually interdependent goals* (Latham & Latham, 2003). This depends on the reciprocal capacity to understand each other's context, culture, and interests. Academics might try to embed themselves in practitioners' reality by: (a) allowing young academic staff to spend time in the organization; (b) using traditional tools to gain a cursory understanding of the organization; and (c) initiating collaborations with “bilingual” practitioners who might champion research in the organization (Beech, MacIntosh, & MacLean, 2010; Hughes et al., 2011; Starkey & Madan, 2001; Walsh et al., 2007).

### 4.1.2 | Subphase 1.2: Codevelop research questions with HRM practitioners

In Mode 2 research, the development of research questions is a dialogical process between academics and practitioners (Shapiro, Kirkman, & Courtney, 2007; Van de Ven, 2007). The previous literature already provides multiple indications that Mode 2 is not consultancy for practitioners, because practical problems must be embedded in a broader theoretical project. Coghlan and Shani (2014) proposed a number of exemplary issues that researchers should address to make the research questions rigorous, reflective, and relevant, that is, “does the collaboration provide a clear rationale for inquiry *and* action? To what extent does the focus address a gap in the scientific literature? Does it display the data to justify the purpose and rationale for the study? Is it linked to past research and scientific literature? Is it linked to contemporary business and organizational issues? Why action is necessary or desirable (to achieve what for whom)?” (p. 529). We highlight two alternative tactics to answer these questions.

The first tactic is *the implementation of a phased approach, that is, practitioners expose their practical issues and then academics look for theoretical relevance*. Pasmore and Friedlander (1982) exemplified this. Their “participative action research” was initiated by a practical problem: reduce the number of injuries in a plant. Academics identified the lack of ready-to-use knowledge in the literature and engaged managers and employees in a collaborative research process to solve the problem



while advancing theory. Academics then performed interviews, participant and nonparticipant observations, surveys and focus groups—and ultimately designed a solution to reduce injuries and produced a theoretical model of injury processes and employees' adjustment.

The second tactic is *the implementation of a collaborative orientation, that is, academics and practitioners together identify issues that are simultaneously relevant and theoretically interesting*. The study by Mitev and Venters (2009) on sustainability exemplified this. A collaborative researcher–practitioner network responded to a funding call that generated mutual interests in academia and private firms. The collaborative network “sat down” to coproduce research questions with a research interest (i.e., unearthing knowledge management practices related to sustainability) and with practical relevance (i.e., developing software tools for supporting those practices).

#### 4.1.3 | Examples from the field

Previous HRM studies have already implemented some of these indications. Huang and Martin-Taylor (2013) explored how the HRM Department influenced the adoption of HRM self-service technology in an organization. The researchers were embedded for several months in the company, and elaborated theoretically interesting and practically relevant research questions, that is, how users' attitudes toward adopting/rejecting a new HRM technology can be nurtured and reshaped by the company. The collaborative network designed a cyclical process with five phases, namely diagnosing, action planning, action taking, evaluating, and learning—reiterated three times. Doherty and Dickmann (2012), instead, focused on the return on investment (ROI) of international assignments. The authors used the networks and competencies of a business school and a consulting firm to create a steering committee of multinational companies. They engaged practitioners by combining long-term incentives (i.e., a broader view of ROI in international assignments) with short-term incentives (i.e., a set of collaboratively constructed indicators as well as benchmark data). These objectives were constantly negotiated during the research process, and different correctives were implemented to preserve stakeholders' interest. The research team cocreated a research question (e.g., do international assignments pay back?) and a practical one (e.g., how to measure the costs and benefits of international assignments?).

## 4.2 | Phase 2: Designing and developing collaborative spaces and collaborative research mechanisms

The initial dialogues about Mode 2 should establish a commitment to the coinvestigation of a topic of mutual interest. This requires the creation of collaborative spaces and mechanisms in which (and through which) partnerships can thrive. This is the phase that most differentiates Mode 2 from Mode 1, as practitioners are asked to be more than informants and become active coresearchers and code-signers of the research. This is also the most sensitive phase, where practitioners' engagement must be carefully managed to minimize biases.

### 4.2.1 | Subphase 2.1: Choose and motivate an appropriate Mode 2 approach

It is known that Mode 1 is a family of different research approaches, for example, some based on the statistical analysis of databases, others on the inductive analysis of interviews, yet others on mixed methods. Different approaches are required to address different research questions or to navigate different contexts. Furthermore, they are informed by different theoretical frameworks and produce different research products. Mode 1 scholars must carefully choose the most appropriate approach for their research and motivate their choice. The same applies to Mode 2. Mode 2 is also a family of different research approaches with peculiar methods and contexts of applications. The most popular approach (also in the HRM field) is Action Research, in which academics address specific organizational problems set out by practitioners, and use the collaboration experience to develop practical lessons along with scientific knowledge (Doherty & Dickmann, 2012; Huang & Martin-Taylor, 2013; Latham, 2007; Lewin, 1946; Reason & Bradbury, 2006; Zhang et al., 2015). Subsequent research has, however, developed additional approaches, with distinctive interpretation of relevance, and distinctive methods to collaborate with practitioners. Shani, David, and Willson (2004) and Coghlan (2011) identified a total of 10 different approaches to Mode 2 research, such as Action Research (Argyris & Schon, 1989; Brown & Tandom, 1983; Coghlan & Brannick, 2014; Chandler & Torbert, 2003; Coghlan & Shani, 2017); Appreciative Inquiry (Cooperidder & Srivastva, 1987; Cooperidder & Whitney, 2001; Cooperidder et al., 2003); Collaborative Management Research (Pasmore et al., 2008); Intervention Research (i.e., Hatchuel, 2001 and 2005; Hatchuel and David, 2008); Clinical Inquiry (Schein, 1995, 2008; Coghlan, 2009), and Participatory Action research (Whyte, 1991). These approaches differ in the object of investigation (e.g., Action Research focuses on problem solving, while appreciative inquiry learns from success stories), in the research product (e.g., some pursue contingent changes to services and organization, others more generalizable models of action) and in the role of researchers (e.g., researchers as “problem solvers,” “critical inquirer,” or mediators among conflicting stakeholders). While it is not the purpose of this study to review these approaches, it is important that researchers and practitioners are aware of such a variety of opportunities before they commit to a specific research protocol. Available classifications in the literature (e.g., Coghlan, 2011; Shani et al., 2004) can be useful resources to navigate the available opportunities and to make the most informed decision.

### 4.2.2 | Subphase 2.2: Negotiate and specify the roles among Mode 2 participants

Mode 2 emphasizes the development of transdisciplinary collaborations, and the “continuity” between practitioners' and researchers' roles. This requires overcoming a strict compartmentalization of roles between researchers and practitioners, while mitigating threats to established identities and interests. Academics have historically kept practitioners at a distance to protect rigor and autonomy, while practitioners have done so to prevent intrusions (Bartunek, 2011; Bartunek & Rynes, 2014; Hodgkinson & Starkey, 2011). Collaborations are viable when actors negotiate new roles from the standpoint of strong identities; therefore, Mode

2 should not melt the boundaries between academics and practitioners, but protect core jurisdictions. Earlier research suggests five tactics.

First, *HRM researchers should be inclusive of the key stakeholders involved in (or affected by) HRM practices and systems.* This is already a “gold standard” in HRM research—for example, studies are perceived to be rigorous when researchers triangulate information from sources across different organizational levels, partnership networks, or the supply chain (e.g., Eisenhardt, 1989; Van Maanen, 2011; Yin, 2010). However, previous contributions have argued that HRM research and practice often serve the interests of shareholders and executives, at the “expense” of employees and external stakeholders (Greenwood, 2013; Guerci & Shani, 2013). Mode 2 might similarly tend to include only senior management or produce relevant outcomes only for that audience (Bresnen & Burrell, 2013; Marchington, 2015). Furthermore, practitioners are invited to become coresearchers and might use their influence to legitimize convenient agendas (Alferoff & Knights, 2009; Swan, Bresnen, Newell, & Robertson, 2007). Hence, Mitev and Venters (2009) suggested the inclusion of “polar forces” to introduce checks and balances against elite forces:

Interdisciplinary management research would benefit from: envisaging ways of including non-elitist industrial partners and engaging with non-managerial interests; developing trust and supporting some informal and personal groups and relations on a longer term basis; making discussions of values and aims an ongoing part of projects as alignment of issues will not be automatic; examining the context of application and the boundary and overlap between Mode 1 and Mode 2 (p. 750)

Second, *HRM researchers should specify and analyze the participants' core logics and jurisdictions mobilized by Mode 2.* HRM academics can use their research toolkit to identify the knowledge, skills, languages, logics, and vested interests mobilized by the collaboration. By doing so, HRM researchers can reflect on the core jurisdictions protected or craved by Mode 2 participants and how they change over time (Marcos & Denyer, 2012; Schiele & Krummacker, 2011). Swan et al. (2010) provide an interesting account of the institutional change triggered by a Mode 2 project in the genetics science field. They show the core jurisdictions and institutional logics pursued by lead scientists, managers of the National Health-Care System, and government actors; and how their competing logics generated tensions. The authors thus revealed two benefits of Mode 2. On the one hand, Mode 2 is itself a meta-story, that is, its mobilization of industrial relations, institutional logics, and human resource management skills are *per se* relevant for research and practice. Hence, researchers can use approaches like participant and nonparticipant observation or ethnographies to do research *about* Mode 2 while doing research *through* Mode 2. On the other hand, collecting information from the outset on core jurisdictions and institutional logics pursued by the actors involved in the Mode 2 process makes all the actors more aware of their specific objectives, thus preventing the possible disruption of the Mode 2 network.

Third, *HRM academics and practitioners should negotiate the rights of all the stakeholders involved in the collaborative space.* Mode 2 research emphasizes that all the relevant stakeholders affected by HRM practices and systems should be given a voice in the collaborative space. If some stakeholders are excluded or isolated from collaboration, Mode 2 research might become biased and serve the interests of local centers of power. At the same time, Mode 2 research does not assume that every stakeholder must necessarily be granted equality in the control of the research process (Hatchuel, 2001; Mohrman & Shani, 2008; Radaelli et al., 2014). Particularly, researchers must protect their intellectual freedom from practitioners' local interests, especially when these may lead to professional misconduct. To solve these tensions, researchers and practitioners should specify (at the beginning of their collaboration) the roles, responsibilities, and activities in which they seek control, and rules to prevent intrusions across these boundaries. The periodic separation between researchers and practitioners is crucial to protect researchers' and organizational members' identity and control over their key jurisdictions, such as methodological rigor, intellectual independence, and theoretical relevance. It is also crucial for practitioners who incur important risks in allowing others to access their information.

Fourth, *the collaborative research team should work as a “parallel structure” and be viewed as a “learning mechanism.”* The literature on teamwork has established the importance of “psychological safety” for effective collaborations and innovation (Edmondson, 1999), that is, the “shared belief that the team is safe for interpersonal risk taking” (p. 354). Indeed, individuals and groups possess power differentials that often prevent other participants from freely contributing to a cause because they fear repercussions. To develop psychological safety, previous studies have suggested designing responsibilities and tasks in the collaborative team outside of established hierarchies and chains of command (Passfield, 2002; Reed & Vakola, 2006; Shani & Bushe, 1987). Through a temporary redesign of roles and the promotion of nonhierarchical relations, each contributor will feel more invested and be less concerned about opportunistic and retaliatory behaviors.

Finally, collaborative research should *formalize roles and jurisdictions into a protocol* stating the nature of the collaboration. Mode 2 collaborations are characterized by multiple negotiations before and during the research process. The formalization of these agreements is a logical conclusion of these negotiations, because they allow for role clarity over time. The development and enforcement of formal protocols is a practice widespread in collaborative research outside management fields. For instance, clinical research teams must apply to the Integrated Research Application System to do research on/with the English National Health-Care System (Smajdor, Sydes, Gelling, & Wilkinson, 2009). These protocols are potent tools to negotiate each other's boundaries, refine research questions, and set the agenda for an actual collaboration—as well as to reduce concerns about opportunistic behaviors.

#### 4.2.3 | Subphase 2.3: Identify and develop collaborative spaces for dialogue

Mode 2 requires appropriate spaces of interaction where all actors perform their roles unconstrained by local influences, and where new meanings, theories, and solutions can be created collaboratively. Mode 2 literature is rich with indications about *the design of social spaces and structural learning mechanisms in which researchers and practitioners*

exchange and create knowledge (Burgoyne & James, 2006; Hughes et al., 2011; Knights & Scarbrough, 2010; Marcos & Denyer, 2012; Schiele & Krummaker, 2011; Starkey & Madan, 2001). Researchers and practitioners may use the “bridging mechanisms” as spaces of interactions; however, for them to be able to do so, these spaces need to evolve into “trading zones” and “relational free spaces.”

“Trading zones” are spaces where knowledge is integrated among scientific communities that must communicate across different paradigms (Romme et al., 2015). Successful trading zones are (a) explicitly action- and goal-oriented, involving a commitment to contributing to advances in scholarly knowledge as well as management practice; (b) durable, so that they can render collaboration more visible and tangible; and (c) characterized by psychological safety and informed consent, as conditions enabling authentic dialogue (Romme et al., 2015). As academics and practitioners can use social ties to identify interested parties, share knowledge, and collaborate, Romme et al. (2015) suggested that “the most durable trading zones in management are likely to be embedded in the context of industry-sponsored projects, large publicly funded research programs, or research institutes established and governed collaboratively by the diverse constituencies involved” (p. 549). The authors provided the example of “management labs,” which (re)design, prototype, develop, and test management processes and tools.

To achieve psychological safety and change, trading zones should possess “relational spaces” (Kellogg, 2009), that is, protected settings where the collaborative team can isolate itself from “defenders of the status quo” and external intrusions. Relational spaces must be: (a) psychologically safe settings where reformers can build a collective identity, a shared definition of the problems and solutions, and a shared feeling of self-efficacy; (b) coordination mechanisms, in which representatives of all work positions must participate. If meetings comprise only a subset of all relevant actors and work positions, the collaborative team struggles to build shared identity and purposes. Relational spaces might be better positioned outside work settings because “midlevel reformers and their subordinates are often not comfortable trying out new task allocations, expressing new identities, or discussing nontraditional ideas... This discomfort may be especially pronounced for lower-status reformers... Having a setting for interaction apart from work itself is crucial because it facilitates discussion of new tasks, identities, and frames” (p. 701). Mode 2 researchers might rotate the settings for relational spaces so that all participants are represented; use virtual communications to bring conversations and negotiations together; rotate leadership responsibilities so that a specific relational space is not perceived as the “territory” of one party (Romme et al., 2015).

#### 4.2.4 | Examples from the field

Radaelli et al. (2014) provide an example of collaborative learning mechanisms developed at the outset of Mode 2 research. The purpose of their research, set within an Italian fashion company, was to understand, formalize, and improve established theories-in-use in collective creativity. The collaboration included top and middle management, internal and external designers, and blue-collar workers. First, Radaelli et al. motivated the choice of Intervention Research as the most appropriate research approach for their Mode 2 study. Second,

they explained how the engagement of different stakeholders was managed to incorporate, as well as mediate, different organizational voices. The authors clearly defined the organizational actors to be involved in the research so as to represent all the different (and potentially conflicting) issues at stake. At first, the stakeholders were engaged separately to appraise the multiple voices in the organization, and recognize possible tensions. They then joined the research team to design a model of collective action from which all parties could benefit to some extent. Finally, to foster the exchange of knowledge between researchers and practitioners, the researchers developed a formal protocol, which stated the key rules for the collaboration and described the practical solutions adopted for knowledge exchange, such as roundtables designed as authentic “relational spaces.”

### 4.3 | Phase 3: Designing and facilitating double-loop iterative research processes

Mode 2 involves double-loop iterative research processes. In one loop, HRM academics iteratively process data from the scientific literature, fieldwork, and emergent theory. In the other loop, HRM practitioners process data from their experiential knowledge, fieldwork, and emergent practice. The collaboration occurs at the intersection between the two loops, when HRM academics and practitioners share and advance their perspectives.

The contentious issue is whether or not Mode 2 researchers should attempt to overlap the two loops. That is to say, should they produce descriptive/explanatory knowledge and support design by the practitioners of pragmatic solutions? Or should they keep the two loops connected but separate, so that researchers produce descriptive/explanatory knowledge while practitioners design practical knowledge? In the former case, it is argued that management research may adopt the logic of design sciences and seek to produce pragmatic solutions.

In the design sciences, academic research objectives are of a more pragmatic nature... It is solution-oriented, using the results of description-oriented research from supporting (explanatory) disciplines as well as from its own efforts, but the ultimate objective of academic research in these disciplines is to produce knowledge that can be used in designing solutions to field problems. Their students are trained at professional schools to be professionals, who are able to use the general knowledge of their discipline to design specific solutions for specific problems. Training researchers is seen largely as a by-product and the professionals are supposed to contribute to their disciplines by reflecting on their cases and publishing their insights so they may be used in handling similar cases. (Van Aken, 2005, p. 22)

Mode 2 can materialize this aspiration by making the production of pragmatic knowledge its main priority (Gibbons et al., 1994; Hodgkinson & Starkey, 2011; MacLean et al., 2002). The emphasis on solutions and improvement as *the* outcome of Mode 2, however, has



created considerable controversy outside the community of design thinkers. Several studies have argued that the “pragmatic knowledge” produced through Mode 2 produces incremental theoretical advances, and delegitimizes the core identity of researchers as rigorous theorists intent on describing, explaining, and predicting managerial phenomena (Bresnen and Burrell, 2002; Hessels & Van Lente, 2008; Huff, 2000; Kieser & Leiner, 2009, 2012; Learmonth et al., 2012).

In the latter case, it is argued that researchers already generate pragmatic knowledge when they work as consultants to stakeholders and disseminate their results beyond academia. Mode 2 should then improve these loops more than mingle them, that is, collaboration with practitioners should help researchers produce richer theory with more insights (as they embed into the context of applications and allow practitioners to mobilize their expertise), while collaborations with researchers should help practitioners produce richer solutions (because they acquire new skills and information from academics). We concur with this perspective, and highlight recommendations on how to reinforce the two knowledge-creation loops.

#### 4.3.1 | Subphase 3.1: Embed in contexts of application to pursue traditional knowledge outcomes

Mode 2 research must preserve the emphasis on theory building and descriptive/explanatory knowledge. The collaboration with practitioners is an opportunity to access “better” data for a longer time. Three tactics are thus compelling.

First, *HRM researchers should use appropriate Mode 1 techniques and quality controls* to collect data and produce descriptive/explanatory knowledge. As Mode 2 shares with Mode 1, the need to build advanced descriptive and explanatory models, it should also use its wide array of methodological tools for data collection and analysis (Burgoyne & James, 2006; Marcos & Denyer, 2012; Schiele & Krummacker, 2011; Swan et al., 2010; Walsh et al., 2007). Tools for qualitative Mode 1 research are especially important, as researchers using that research approach have provided several toolkits about data collection (Corbin & Strauss, 2014; Creswell, 2013; Patton, 2005), data representation and analysis (Gioia et al., 2013), and quality controls (Johnson, Buehring, Cassell, & Symon, 2006). The theoretical depth and qualitative rigor mandatory in qualitative Mode 1 research need to be transposed into Mode 2.

Second, *HRM researchers should exploit and document interruptive events* to stimulate local inputs. Collaborations between academics and practitioners occupy short- and intermittent-time windows, since both parties will devote most of their time to their core practice (Bartunek & Rynes, 2014). Academics thus need to optimize the brief moments of contact to obtain the practitioners’ focused contribution, and the periods of distance to perform independent elaborations (Beech et al., 2010). The sociology of practice highlights that collaborations can be structured around interruptive events—that is, moments that anticipate or follow changes or crises in organizations/processes (Zellmer-Bruhn, 2003). These events are attention devices: since sensemaking by academics and practitioners is compromised, they need to reassess their context and make changes (MacLean et al., 2002). Because these are crucial moments, it is crucial for researchers to document and act upon them. Specifically, the literature suggests that interruptive events should: (a) combine planned events and unpredicted moments, where practitioners are pushed to rethink their practices; (b) use environments in which involved actors feel

safe and perceive they can make use of their creativity; and (c) share the purpose of meetings following interruptive events, and prepare specific questions and goals that avoid not focused communications (MacLean et al., 2002).

Third, *HRM researchers should appropriate the ethnographic or clerical work* generated by the research process to gain insights into local practices and build relational authority toward practitioners. Ethnographic studies have shown that researchers’ direct engagement with professional work increases their understanding of the context and its internal dynamics, as well as creating a sense of indebtedness in practitioners, who reciprocate by supporting more the academic research process (Van Maanen, 2011). When academics cannot appropriate professional work, they can appropriate the clerical work generated by Mode 2 research to increase their contacts with practitioners and their understanding of the context of application. Some studies have complained that Mode 2 involves a large amount of clerical, administrative, and background work (e.g., schedule preparation, minute-taking, or document write-up) necessary for informants to be able to generate knowledge, thus increasing academics’ workload (Marcos & Denyer, 2012). High-status practitioners are usually reluctant to perform this work, and want either to delegate it to low-skilled or actors or circumvent it. Studies on “scut work” suggest that academics might want to appropriate some of these activities, because they are gateways for newcomers to become embedded in the organization, get to know its internal processes, and expand the social network (Huising, 2015; Pratt, Rockmann, & Kaufmann, 2006). Appropriating the clerical work also makes it possible to develop stronger “relational authority” over other participants, because it (a) enables practitioners to focus only on their expert contribution; (b) emphasizes strong commitment to the research process; and (c) gives academics entry to local dynamics or data that would be otherwise inaccessible.

#### 4.3.2 | Subphase 3.2: Embed practitioners in the knowledge-creation process

Earlier research highlights three tactics to maximize practitioners’ contribution to knowledge creation.

First, as part of the reciprocal educational process, *HRM researchers should train practitioners in research methodologies; and HRM practitioners should educate the researchers in the challenges of HRM practice*. Mode 2 assumes that HRM practitioners can also act as researchers and use structured and rigorous methods to collect and analyze data. Thus, Mode 2 networks may acquire a set of observations and data much richer than that which HRM academics could obtain on their own. To this end, HRM practitioners can be stimulated, for instance, to keep diaries about participant and nonparticipant observations, coproduce questionnaires and surveys, carry out independent data analyses, or lead interviews and focus groups (Hayton, 2003; Johns, 2003; Pritchard, 2010). HRM academics, however, must provide HRM practitioners with the skills and criteria necessary for rigorous data collection and analysis.

Second, *HRM researchers should formalize a phased and “nominal” approach to knowledge creation*, in which moments of collaboration and separation alternate. HRM researchers already adopt phased knowledge-creation approaches in Mode 1 research. For example, Mode 1 fieldworkers triangulate their data with other researchers

who have been detached from the context of application and help abstracting data into theory (Corbin & Strauss, 2014; Creswell, 2013; Patton, 2005). This process of theoretical abstraction is also important in Mode 2, with the difference that HRM researchers involve practitioners in it (Marcos & Denyer, 2012; Schiele & Krummacker, 2011). Likewise, HRM practitioners acting as fieldworkers should also triangulate their data and analyses with researchers, who can “abstract” their opinions into more theoretical outcomes; and with other practitioners (e.g., in different units, organizations). Compared to Mode 1, therefore, Mode 2 collaboration should overcome problems of cognitive lock-in for academics. But it is also necessary to emphasize the importance of *separation* in enhancing productivity and creativity. Nominal groups (i.e., groups where ideas are generated by individuals and then shared) produce more and “better” knowledge than do hybrid groups where ideas are generated collectively through brainstorming (Girotra, Terwiesch, & Ulrich, 2010). Indeed, nominal groups improve the quality and democracy of collaboration because every “voice” is given a chance to express its ideas; while hybrid groups tend to be less democratic and creative. Mode 2 collaborations that rely predominantly on collective processes are, therefore, likely to generate knowledge more ineffective than that produced by collaborations that first allow actors to generate ideas individually and then use the network to develop those ideas jointly.

Third, the collaborative team should *engage in scientific experimentation whenever appropriate* to test and document the relevance of theoretical outcomes. To understand whether these outcomes have made a difference in practitioners’ lives, it is crucial to test such outcomes in controlled settings. Experimental designs are for example typical of clinical research, where randomized controlled trials are the gold standard to test the effectiveness of new therapies; and organizational researchers are required to move beyond cross-sectional studies and toward experiments to demonstrate and explain causation (Bono & McNamara, 2011). Experiments in HRM research are significantly more infrequent, but they are needed to improve causal explanations (Huselid & Becker, 2000; Sanders, Cogan, & Bainbridge, 2013). Mode 2 collaborations might represent ideal settings to organize with practitioners’ local experiments, to verify whether the emergent solution actually addresses the original problem, and/or whether the emergent theory enhances practitioners’ understanding of processes and organization (Shani & Bushe, 1987).

### 4.3.3 | Examples from the field

Pasmore and Friedlander (1982) provided an example of double-loop knowledge creation. Their study began with a practical problem—that is, reduce injuries in a plant—which grew into a theoretical opportunity, that is, develop an explanatory model of injury processes. Academics engaged managers and employees in collaborative research to solve the problem while advancing theory. The collaborative effort resulted in a theoretical model of injury processes and employees’ adjustment, and then in a “pragmatic” plan for the reduction of soreness injuries in the plant. The collaboration allowed one “loop” to feed into the other. Indeed, the researchers received a great deal of detailed feedback and information by being embedded in the context of application, and allowing the practitioners to refine the explanatory model, and the practitioners received a concrete plan by giving the researchers the time and trust to embed in the plant.

The collaboration process (a) was designed after a practitioners’ education effort on research design and methodology; (b) followed a phased and a nominal approach, where meetings were alternated with individual work; (c) was grounded on several qualitative (i.e., interviews, participant and nonparticipant observations, and focus groups) and quantitative (i.e., survey) techniques, to which traditional Mode 1 quality controls were applied; and (d) included a phase of structured experimentation, which constituted a unique opportunity for researchers and practitioners to measure the impact of the solution.

## 4.4 | Phase 4: Legitimize mode 2 empirical work

In the previous section, we noted that Mode 2 is likely to produce two outcomes, that is, theoretical models describing and explaining phenomena, and practical outcomes acting as solutions, techniques, and methods. The legitimization of Mode 2 thus involves its academic legitimization in the eyes of HRM research (e.g., journal editors, reviewers, and peers) and its pragmatic legitimization in the eyes of HRM practice (Avenier, 2010).

### 4.4.1 | Subphase 4.1: Pursue academic legitimization of Mode 2 research

The perceived legitimacy of Mode 2 research depends on the expectations of gatekeepers and on the capacity to justify rigor. This implies that researchers should be very explicit about how the process of Mode 2 was structured, how it elicited new meanings, and how it reached agreement among stakeholders to produce its outcomes. This can be achieved following three tactics.

First, HRM researchers *should be aware of the expectations of journals and outlets*. The theoretical premises of Mode 2 research are radically different from those of Mode 1 research, as Mode 2 assumes that (a) reality is socially constructed and subjective, whereas Mode 1 research assumes reality as objective and measurable; (b) research is meant to understand and change phenomena, whereas Mode 1 often assumes that research must explain and predict phenomena by detaching from the object of investigation; and (c) researchers’ values guide their efforts, whereas Mode 1 assumes researchers’ values as irrelevant and something which should be suppressed to prevent biases (Gibbons et al., 1994). Since the chasm between Mode 2 and Mode 1 is significant, the legitimization of Mode 2 in Mode 1-dominated outlets might be problematic. Mode 2 researchers should be aware of this chasm before submitting their outputs to journals, to present their research in the most convincing way (and perhaps decide for more favorable outlets in the field).

Second, researchers *should explain the criteria used for rigorous Mode 2*. Academics face the problem of convincing editors and reviewers that their Mode 2 research is rigorous enough for publication. In the past, researchers have worked on this problem, suggesting ad hoc criteria for Mode 2 in management research (e.g., Bresnen & Burrell, 2013; Hodgkinson & Starkey, 2011; Learmonth et al., 2012; Martín-Alcázar et al., 2008; Nicolai & Seidl, 2010). Researchers can use the language of constructivist research in the HRM field to legitimize also their Mode 2 research (Guest, 2011; Harley, 2015; Samnani & Singh, 2013). Specifically, Mode 2 researchers may use the quality criteria suggested by Johnson et al. (2006), and use the following specialist “keywords” to communicate the rigor of their research: (a) accommodation, that is, the use of knowledge in diverse, comparable contexts where similarities and differences

can be assessed; (b) catalytic validity, that is, elicit a new understanding of reality in the people involved; (c) authenticity, that is, represent an agreement among informants on what is considered to be true; (d) credibility, that is, the extent of authentic representation; and (e) transferability, that is, the extent of applicability. Adding to this, we highlight that decades of Mode 1 research have also produced important knowledge in this regard. Therefore, Mode 2 researchers can also legitimize the rigor of their research by showing the similarities with established Mode 1 approaches.

#### 4.4.2 | Subphase 4.2: Pursue practice legitimization

The practice legitimization of Mode 2 research involves highlighting the effectiveness of its practical outcomes in the organization and discussing the generalizability of the solution across settings. We highlight two tactics here.

First, HRM researchers *should try to measure the impacts of their solutions*. The effectiveness of the practical outcomes can be relatively easy to ascertain when Mode 2 researchers measure performance before and after the intervention. For instance, Pasmore and Friedlander (1982) quantified a swift reduction of injuries after their action research plans, which gave immediate face validity to their intervention. The pragmatic legitimization of Mode 2 research to practitioners is contingent on the possibility to single out the effect of specific Mode 2 initiatives from other possible confounding factors. Methods and techniques for the impact assessment of interventions are readily available from a wealth of sources (e.g., Schindler & Eppler, 2003; Tran & Daim, 2008).

Second, HRM researchers *should try to develop technological rules*. Management outlets rarely demand that researchers demonstrate the effectiveness of their solutions. This is different from other fields, for example, clinical and engineering research, where publications should demonstrate the effectiveness of new treatments through randomized control trials, or show the performances of new artifacts through experiments and tests. To achieve this degree of credibility, Mode 2 researchers need to address the questions of the generalizability and transferability of their practical solutions, that is, to what extent their practical outcome is not just relevant "here and now." Mode 2 might thus "translate" its findings into "technological rules" (Van Aken, 2004, 2005).

[Technological rule is] a chunk of general knowledge, linking an intervention or artefact with a desired outcome or performance in a certain field of application. The "general" in this definition means that it is not a specific prescription for a specific situation, but a general prescription for a class of problems. On the other hand a technological rule is not a universal law, its use being limited to a certain field of application. (Van Aken, 2004, p. 228)

#### 4.4.3 | Examples from the field

Zhang et al. (2015) have provided explicit information on the legitimization of Action Research in HRM practice. The article first asserts its diverse benefits for HRM researchers and practitioners; it then

devotes a specific section to its possible benefit for academic institutions—recognizing the key role of institutional gatekeepers in the diffusion of the approach. It is interesting that the authors provide a table with a long list of Action Research-based articles published in top quality journals, suggesting that Action Research is already legitimate in the management field. Furthermore, the article contains a methodological section that supports researchers in understanding the assumptions underlying Action Research, and in dealing with its specific quality controls.

## 5 | IMPLICATIONS

Our framework has several implications for key Mode 2 stakeholders. The embedded potential and some of the key challenges are based on the fact that Mode 2 research orientation by its very nature mobilizes a complex ecosystem of actors, encompassing at least HRM researchers, practitioners, academic institutions, and gatekeepers (such as journal editors).

Regarding HRM researchers, we note that the community of Mode 2 HRM scholars remains restricted and tends to connect with peers in other management fields than with Mode 1 scholars in HRM. This might be explained by earlier attempts in the field to proselytize Mode 2 at the expense of Mode 1, almost demanding a "conversion." This effort has often provoked negative reactions from management scholars, defending the virtues of Mode 1 and/or observing the limitations of Mode 2 research (e.g., Bresnen & Burrell, 2013; Huff, 2000). In the wake of more recent debates, our framework emphasizes that Mode 2 and Mode 1 are not alternative and competing approaches, but rather are viewed as more complementary. As suggested by Zhang and colleagues for Action Research and traditional research (Zhang et al., 2015), we support the idea that HRM practitioners should consider ambidexterity in the use of the Mode 1 and Mode 2 research orientations. The main contrast relates to the perceived rigid view of Mode 1 research, in which interactions with the object of observation lead to unavoidable biases. Mode 2 can be understood instead as the management of a complex ecosystem of actors who share a common object of investigation, and that can develop better access to and analysis of data. Understood in this way, Mode 2 extends approaches that already exist in the HRM field, by legitimizing a more active engagement of practitioners in the research process. At a more practical level, we must emphasize that our framework does not intend to be prescriptive regarding the design and implementation of Mode 2, but rather to serve as a tool useful to support the research process and the researchers' decisions.

Regarding HRM practitioners, the proposed framework can be useful to inform what they can expect from the research process and the collaborative researchers when they venture into a Mode 2 research project. Several firms and public organizations have indeed paid very close attention to academic research, for example, funding research projects or academics' contracts, as well as developing functions and expectations in their R&D departments. The capacity to extract value from these efforts remains dubious (Cohen, 2007; Knights, 2008; Learmonth et al., 2012; Marcos & Denyer, 2012). Our framework suggests that Mode 2 can be a structured way for

practitioners to embed their voice in academic research, while understanding the boundaries that must exist between the parties. Contrary to arguments in favor of mingling the boundaries of academics and practitioners during Mode 2 research, our framework highlights that more value can be generated when each party provides their “otherness,” and when these specialist skills are bridged rather than mixed. Furthermore, our framework emphasizes that practitioners should be more than “clients” of research and generate competencies and infrastructures to become active “players.” On a more practical level, our conceptualization emphasizes the need to be realistic about the extent of interactions between researchers and practitioners, as well as welcoming the emergent quality of the interactions, and the autonomy to determine the frequency and intensity of the interaction.

Academic institutions, such as business schools, represent hidden, and yet key, players in this Mode 2 framework. On the one hand, there is an apparent need for more Mode 2 education, as programs related to Mode 2 research are rare and relatively dispersed across universities and business schools. Providing young researchers with information about Mode 2 research, as we do in this article, might be useful for inducing PhD students and early career researchers to include Mode 2 as part of their toolkit. Possibly, Mode 2 may become a stable component of any management program, as the interactions between research and practice become more and more important. On the other hand, available good practices suggest the need to create and reinforce “bridging mechanisms,” such as MBA programs, PhD enrollments, and socialization events and meetings. While most of these bridging mechanisms are already in place, their capacity to generate Mode 2 research remains underdeveloped (Hughes et al., 2011; Latham, 2007; Starkey & Tempest, 2005; Tushman et al., 2007; Ulrich, Younger, Brockbank, & Ulrich, 2013). Put differently, most universities and business schools appear to have infrastructures and structures favorable to Mode 2, but they are not used for these purposes. They might improve if expectations concerning the relevance of academic research increase. This need is indeed gaining increasing attention at the level of higher education policies, for example, with the assessment of “impact” in the UK Research Excellence Framework (Grant, Brutscher, Kirk, Butler, & Wooding, 2010; Smith, Ward, & House, 2011) and, in the United States, with the new Association to Advance Collegiate Schools of Business standards that challenge business schools to define “impact,” its measurement, and how it fits with the institution's vision and strategy.

Finally, research gatekeepers, such as editorial boards of scientific journals, play a decisive role in the diffusion of Mode 2 research. Given the pressure on researchers to publish in top-level journals, editors and reviewers can steer conversations toward Mode 2 research, for example, through special issues or special sections. The zeitgeist is arguably becoming more favorable to Mode 2. *Human Resource Management*, for instance, has a virtual issue on “fifty years of bridging research and practice,” and is active in the publication of Mode 2 research (e.g., Zhang et al., 2015). Similarly, the *Journal of Operations Management* recently introduced a “design science department,” where expert scholars review studies using a Mode 2 approach (Van Aken, Chandrasekaran, & Halman, 2016). Notably, in the introduction essay, the department editors argued that: “key [assessment] criteria

cover questions of validity and relevance: (a) How strong is the evidence that the design will produce the desired results (i.e., pragmatic validity)?; and (b) In what way does the design make a valuable contribution to addressing a significant field problem or exploiting a promising opportunity (i.e., practical relevance)?” (p. 1). These criteria are highly indicative that the academic community is becoming increasingly reassured that rigor and relevance not only can but should also be bridged.

## 6 | CONCLUSIONS

The uptake of Mode 2 in HRM studies remains disappointing, despite decades of discussions on its potential to bridge rigor and relevance. While different factors explain the struggle of Mode 2, this study has focused primarily on the uncertainties that still remain regarding the design and implementation of Mode 2 research orientation in HRM research. These uncertainties are connected to a lack of Mode 2 guidelines, as past contributions are dominated by high-level, almost philosophical, discussions or by the proposal of hands-on solutions to specific micro-level issues. Our study has sought to address this gap by providing a framework informed by a comprehensive review of previous Mode 2 research—within and outside the field of HRM. The proposed framework includes four macrophases, which begin with the codevelopment of research questions with practitioners and end with the legitimization of Mode 2 research outcomes. The framework is meant to support HRM researchers, practitioners, as well as institutions and gatekeepers in the design, implementation, education, and assessment of Mode 2 research. Yet, the framework does not intend to be prescriptive but rather to collect and organize the available good practices into a meaningful process. As noted, Mode 2 is a family of different research approaches, each with distinctive theoretical and methodological underpinnings. Future research may perhaps try to develop in-depth methodology to inform the design and implementation of these specific methods—as some studies have already begun to do (e.g., Zhang et al., 2015).

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