



Towards interventionist research with theoretical ambition

Kari Lukka^{a,*}, Marc Wouters^{b,c}

^a *Turku School of Economics, University of Turku, Finland*

^b *Karlsruhe Institute of Technology, Germany*

^c *University of Amsterdam, Netherlands*

ARTICLE INFO

Keywords:

Interventionist research
Ethnographic field research
Theoretical ambition
Theoretical contribution
Abductive research process
Engaged scholarship

ABSTRACT

A distinct strength of interventionist research (IVR) is the ability to establish particularly good access to a research partner organization and collect exceptionally detailed information, which may not be available to researchers who employ other approaches. Yet, a challenge of IVR is to exploit this data-gathering opportunity in full, in order to develop a theoretical contribution. We propose the ‘theoretical focus driven’ mode (TFD mode) as a ‘way of working’ for interventionist research, whereby the chosen (yet potentially flexible) theoretical focus *drives* the project. The researcher invests extra time up-front to thoughtfully generate and explicate the research questions and theoretical focus. These guide a selective and purposeful data-gathering effort, as well as the nature of the research intervention. At the same time, the researcher remains inspired by the field work and open to changes in the theoretical focus. Indeed, the TFD mode process tends to be iterative, since it is affected not only by the characteristics of abductive theorising, but also by potentially changing priorities of the target organization, and thereby the initial theoretical focus can become empirically unfeasible. Overall, rather than building on the researcher’s enthusiasm for innovative themes in practice, and casting a broad net for data gathering, the TFD researcher capitalises on the potential of IVR by strengthening the theoretical ambition.

1. Introduction

Interventionist research (IVR) is receiving increasing attention and interest among management accounting researchers. Further, published IVR is gradually appearing in more prestigious forums (including *AAAJ*, *CAR*, *CPA*, *EAR*, *MAR* and *AOS*) (Arnaboldi and Azzone, 2010; Cullen et al., 2013; Groen et al., 2012b, 2012a; Malmi et al., 2004; Mouritsen et al., 2001; Rowe et al., 2012; Skærbæk and Melander, 2004; Woods et al., 2012; Wouters and Roijmans, 2011; Wouters and Wilderom, 2008).¹ At the same time, there appears to be a limited understanding among scholars of what IVR is supposed to be, and of its potential as a helpful approach to conducting serious management accounting research.² Even though several methodological texts on IVR exist that offer guidelines – mostly prescriptive thought pieces, but also some reflective pieces based on conducted empirical IVR studies (Baard and

Dumay, 2020a; Jönsson and Lukka, 2006; Kasanen et al., 1993; Labro and Tuomela, 2003; Suomala et al., 2014) – many aspects of IVR still need more thorough analysis and understanding. One of these relates to the definition of IVR.

No unanimous view exists among IVR-oriented scholars in various disciplines regarding what should be the general aim of such research. Kuula (1999), for instance, depicts a continuum among various types of action research. At one end is the extremely empiricist and problem-solving oriented approach, arguing that action research is first and foremost about practical change, and that theoretical ambitions are an unnecessary, even detrimental waste of time in such projects. At the other end of the continuum lies the view that action research should be seen not only as about change in practice, but most importantly about teasing out results that are theoretically interesting from the etic perspective, outside of the specific context, based on having been

* Corresponding author.

E-mail address: kari.lukka@utu.fi (K. Lukka).

¹ For recent overviews of published papers in management accounting based on IVR, see Malmi (2016), Lukka and Vinnari (2017), and Baard and Dumay (2020a).

² IVR is even sometimes considered as typically just a consulting project that is later intimated as research (Jönsson and Lukka, 2006) – a serious misunderstanding, in our view, in case of appropriately conducted IVR. Consulting projects should be conceptually separated from IVR, since achieving a theoretically important output is not a typical objective of a consultant, and a consulting assignment tends to be only implicitly, if at all, linked to the relevant research literature.

particularly deeply involved in the processes at the emic level from the perspective of organizational actors. In examining the whole range of options of conducting IVR, Jönsson and Lukka favour and focus on the latter end of the continuum introduced by Kuula (Jönsson and Lukka, 2006).³

We hold the latter view. While IVR is for us about developing rich, in-depth case studies, which draw on ideas provided by practitioners and make full use of empirical opportunities, even more importantly we acknowledge the following assumptions: 1) Having a practical impact in the partner organization where the research was conducted is a characteristic feature of IVR projects, but IVR is even more essentially a means to eventually produce a theoretically interesting contribution (see Jönsson and Lukka, 2006; Robinson, 1993), and 2) There can be different kinds of theoretical contribution: the design of a new construction (for instance, a new management accounting concept or method, the mechanism of which is explained, too), and/or the more traditional contributions (suggestion of a new theory or illustrating/-refining/extending/testing existing theory) (see Keating, 1995; Lukka, 2005). We set out to explore the possibilities and challenges of producing theoretical contributions in IVR, and, in particular, put forward a specific mode of running the process of IVR that we term ‘theoretical focus driven’ IVR. We conceptualise this mode, and suggest that it would be a helpful choice for those interventionist researchers who aim for studies that produce something theoretically novel and exciting.⁴

1.1. Theoretical focus driven mode of conducting IVR

A distinct general strength of IVR is the ability to establish particularly good access to a research partner organization and collect exceptionally detailed information, which may not be available to researchers who use other approaches (Jönsson and Lukka, 2006). At the same time, a typical challenge of IVR is to be able to exploit this data-gathering opportunity fully, in order to develop a theoretical contribution. We propose the ‘theoretical focus driven’ mode (TFD mode) of IVR research, whereby the chosen (yet potentially flexible) theoretical focus *drives* the project. The researcher invests extra time up-front to thoughtfully generate and explicate the research questions and theoretical focus. These guide a selective and purposeful data-gathering effort, as well as the nature of the research intervention (Suomala et al., 2014). At the same time, the researcher is supposed to remain inspired by the field work, and still be open to changes in the theoretical focus. Rather than building on the researcher’s enthusiasm for innovative themes in practice, and casting a broad net for data gathering, in the TFD mode, the researcher capitalises on the potential of IVR by strengthening the theoretical ambition. Importantly, the TFD mode refers to a specific ‘way of working’ during the research process, rather than to how the published paper reads.

An important way to motivate the TFD mode for IVR – which will be specified in greater detail later in the paper – is to contrast it with the currently dominant mode of conducting IVR, namely ‘theme and practice driven’ (T&PD). Based on our long and many-sided experiences with IVR, we shared a common concern about some of the existing IVR

³ Jönsson and Lukka identify five known options of IVR: Action research, clinical research, action science, design science and the constructive research approach. They suggest IVR as an umbrella notion covering the common aspects of these (Jönsson and Lukka, 2006).

⁴ The project started with the identification of the two authors’ long-lasting common interest in IVR – albeit from different perspectives. One of the authors had been writing on as well as publishing, reviewing, presenting, and supervising IVR – but directly conducting such research to a lesser extent. The other author has conducted and supervised several empirical interventionist projects, which have been published in academic journals. We were curious as to whether collaboration based on these different knowledge bases could help produce some important new understandings on IVR.

practices. Due to the current dominance of the T&PD mode, interventionist studies are often, during the earlier parts of the research process, lacking a theoretically *motivated* research question, along with a well-identified theoretical tension and ambition.⁵ Since the theoretical side of the work is often densely packed into the last stages of the project, many opportunities may be missed to develop a stronger theoretical contribution. Further, we believe the TFD mode to conducting IVR studies can help researchers experience less stress and better realise the scholarly potential of IVR than can the T&PD mode.

Our paper is framed by the belief that seeking theoretical advances is an integral part of good scholarship, and that this applies also to IVR. We hereby largely follow the notion that “theory is king” (Straub, 2009), widely established in numerous disciplines, according to which researchers need constantly to strive for a theoretical contribution to prior research, in their conceptual as well as empirical work. This view stresses systematically building on the existing knowledge base, and constant attempts to advance the theoretical knowledge of various empirical phenomena, which can, at least in principle, include incremental as well as more radical theoretical advances.⁶

While the notion of theory is a complex matter, and at times a target of heated scholarly debate (e.g., DiMaggio, 1995; Malmi and Granlund, 2009a, 2009b; Quattrone, 2009; Sutton and Staw, 1995; Weick, 1995), a rather standard definition serves as a sufficient general guideline for our purposes: a theory is “an ordered set of assertions about a generic behaviour or structure assumed to hold throughout a significantly broad range of specific instances” (Weick, 1989). While the need for generalizability of theories should not be overstated, particularly in the case of social studies (Lukka and Suomala, 2014), a theory is essentially seeking to form a systematic set of arguments, based on a solid conceptual basis, as opposed to a list of empirical *ad hoc* observations without a clear structure or direction.

For clarity, the TFD mode is not intended to imply that IVR should distance itself from practical concerns. IVR is by definition a form of research that involves close collaboration with practice partners in a spirit of “engaged scholarship” (Van De Ven and Johnson, 2006), where researchers and practice partners are seen as equals, yet playing different roles in the partnership. Their collaboration in IVR studies may help to reduce the distance between research in academia and managerial questions in practice (Bartunek et al., 2001; McGahan, 2007; Rynes, 2007; Tranfield and Starke, 1998) (see also Baard and Dumay, 2020b). However, while we by no means wish to deny that potential of IVR, we choose not to address this in detail. Instead, we will focus on ways in which collaboration in IVR can more productively support the research objective of providing a theoretical contribution.

When talking about theory, the focus is normally on the main domain where the study is positioned. However, in addition to the ‘domain theory’, a ‘method theory’ – or a theoretical lens – through which a certain domain can be explored in a potentially novel or particularly helpful manner can also play a role in a study. In the management accounting domain, there are many examples of the successful employment of various method theories, such as types of institutional theory,

⁵ Admittedly, these are personal impressions, not hard facts about the state of IVR. Anyhow, we see many working papers presented or reviewed for journals, and occasionally papers published in lesser-quality journals (we wish to refrain from giving explicit examples here), which lack a strong theoretical contribution. Another personal impression is that although the number of published IVR papers in management accounting does not yet amount to a large body of research literature, we sense the attitude towards IVR has changed, becoming more positive over the last 30 years or so. It is today less common to condemn IVR outright as “consultancy” or “consultancy research”, as the academe has become more aware of the potential upsides of IVR.

⁶ There are, however, also important critical debates regarding the risk of over-playing the “theory is king” perspective in research, see Hambrick (2007), and Avison and Malaurent (2014). Indeed, such over-playing might lead to theory/theorising becoming a ‘fetish’ in a study, which we do not support.

Foucauldian theorisations, or practice theories (Lukka, 2005; Lukka and Vinnari, 2014; Modell et al., 2017). Also in IVR, it is naturally possible to employ various method theories. However, theoretical problematizations, ambitions and contributions, the importance of which become stressed in the TFD mode, would mostly relate to the domain in which the research question is positioned, even if method theories were employed – just like in management accounting research more generally.

1.2. Reflective analysis of the underlying IVR study

Few studies in the accounting and business studies context have reflected explicitly and in detail on completed IVR projects (Labro and Tuomela, 2003; Suomala et al., 2014), and there seem to be no studies that have in a *planned* manner collected systematic material for a reflective analysis of an ongoing IVR process. We have designed a form of reflective study to address this, with a view to acquiring thorough, reliable and systematic documentation on what happened, when, how, by whom, why, and so forth during an IVR project. Hence, part of our analysis is in an arguably unique way connected to an actual, longitudinal IVR project. Similar to other papers on IVR methodology, we also did a lot of reflection *ex post*, including bringing in a multitude of our experiences in different IVR as well as other scholarly studies.

In 2015, a doctoral student of one of the authors, Marc Wouters, had just started an ethnographic interventionist PhD study at a relatively high-tech, well-branded manufacturer of high-end durable consumer goods for global markets (anonymised here as *Alpha*). The general theme of the underlying study was cost management/target costing during product development when the degree of parts commonality and product modularity is high. We will refer to that work as the *underlying study*. The underlying study involved Marc Wouters and the doctoral student, but not Kari Lukka, the other author of this paper.

The doctoral student accepted the idea of immediately starting to keep a meticulous, chronological research diary, aiming to be mindful of what was happening at the emic level at Alpha, and also to make systematic notes on the progress of the etic (i.e., theoretical) ideas that related to the PhD thesis.⁷ Marc Wouters, as the doctoral student's supervisor, also started keeping a meticulous, chronological research diary on his observations and thoughts during the empirical process.⁸ It was agreed that the sharing policy of these documents would be asymmetrical. The doctoral student's research diary would be disclosed to both authors of this reflective study, but that of the supervisor would only be disclosed to Kari Lukka, not to the doctoral student. Thus, the supervisor could freely write also his authentic concerns regarding the progress of the project and academic development of the doctoral student, without the risk of disturbing the student's work.

1.3. Research questions

This paper is structured in a somewhat unusual way that echoes the abductive reasoning method we have employed (Dubois and Gadde, 2002; Lukka and Modell, 2010). Hence, our research questions crystallized during the course of the study, starting from our first brainstorming sessions in 2015. During our reflective analysis, we came to realise how *strategic* the decision for an interventionist researcher could be to opt for either the T&PD or TFD mode.⁹ Three research questions drove the final

⁷ For the emic vs. etic domains of research, see Pike (1954), and Jönsson and Lukka (2006).

⁸ We refer to the research diary of the doctoral student as RD1, and that of the supervisor as RD2. When quoting from these research diaries, we corrected some obvious typos and other errors due to writing hastily or casually in these diaries, and we corrected a few translation details in RD1 that was originally in German.

⁹ We do not deny there could also be other alternatives.

write-up of this reflective study:

- 1 What does 'theoretical focus driven' (TFD) IVR mean and, in particular, how does it differ from 'theme and practice driven' (T&PD) IVR?
- 2 Why does T&PD seem to be the default mode of conducting IVR now?
- 3 How can researchers make use of the TFD mode in IVR in practice?

We will examine these three questions proceeding in the *ex post* reflective mode, fundamentally as a thought piece, which utilises the research diaries of the doctoral student and the supervisor in two ways: first, analytically, as materials against which to test some of the ideas that came to us during the reflective analysis; and, second, as sources to illustrate our ideas.¹⁰ However, it is not only the underlying study that is the source of evidence and inspiration for this piece. Another very important source is the experience of both authors' involvement with interventionist studies in multiple roles for several decades.

1.4. Structure of the paper

We next present a brief overview of the state-of-the-art of the research literature on IVR, followed by the provision of basic information on the underlying IVR study. Thereafter, we examine the key features of the T&PD mode of conducting IVR, and the reasons for its apparent popularity. We then contemplate how to practise IVR differently, leading to our proposals for the TFD mode and how it can be practised. Finally, we present our conclusions.

2. The research literature on IVR

The term "interventionist research" in the meaning employed in this piece was coined, in the accounting context, by Jönsson and Lukka (2006). IVR can be defined as a longitudinal case study approach (with variations), in which active participant observation and empirical intervention (although to varying degrees in different IVR studies) are used deliberately as research assets (Baard and Dumay, 2020a; Jönsson and Lukka, 2006; Lukka and Vinnari, 2017; Suomala et al., 2014). This definition offers a contrast to the non-interventionist research, where empirical interventions are traditionally regarded as mere problems.¹¹ The expressly *active* participant observation of IVR relates to the typically normative or prescriptive, often problem-solving oriented aspect of this research approach. However, as we will argue below, IVR has the potential not only to be involved in solving practical problems, but simultaneously to produce theoretical advances in various ways, that is, by suggesting a new theory or illustrating, refining, extending or testing an existing theory (see Keating, 1995; Lukka, 2005). Hence, in these respects, IVR can fulfil similar purposes as non-interventionist research. Jönsson and Lukka (2006) suggest IVR as an umbrella notion, under which several sub-forms of IVR – they mention action research, clinical research, action science, design science, and the constructive research approach – could be situated. The origin of IVR dates back to Kurt Lewin's "action research" (1948), a term and approach applied widely in many social science fields, including business studies, as well as in

¹⁰ The underlying study is not intended to be an example of the TFD approach. Our intention was 'simply' to create a meticulous documentation of the process of the underlying project, to be open-minded as to what went well and not so well, and to see what we could learn from this regarding IVR research. This has helped us reflect on difficulties in IVR and develop ideas on how IVR could be conducted. Our conceptualisation of TFD emerged during this process, it was not there from the outset.

¹¹ Many papers in the management accounting literature on the nature of IVR propose definitions of IVR that tend to have essentially a similar or corresponding core content, see e.g. Suomala and Lyly-Yrjänäinen (2012), Lukka and Suomala (2014), and Dumay and Baard (2017).

engineering studies.

The methodological literature on IVR in management accounting includes a variety of views regarding the aim of IVR and the role of theory therein. Some early papers proposed that the objective of IVR – and especially that of the ‘constructive research approach’ – is first and foremost to produce theoretically informed and field-tested management accounting approaches (or ‘constructions’) that ‘work’ in carefully delineated situations, pointing to analogies with research in engineering and medicine (Kasanen et al., 1993; Lukka, 2003; Mattessich, 1995).¹² This notion of IVR is related to the more recent stream of ‘design science’ research in the operations management literature (Jelinek et al., 2008; Romme, 2003; Romme and Endenburg, 2006; van Aken et al., 2016). The literature on these forms of IVR offers important ideas for management accounting, in particular the realisation that designs in management accounting have significant social components. The design’s description is often notably incomplete, its mechanism only partially understood, people shape its implementation and have various perceptions on its effects, and testing the design in research requires “thick descriptions”¹³. By implication, designs in management accounting are not similar to engineering constructions or flying a plane, an observation that sometimes seems to have been given less consideration (Kaplan, 2006, 1998). Crucially, though, the design-oriented notion of IVR is not merely about solving the problems of a single organization but creating new knowledge, namely on management accounting approaches that are based on theory, empirically developed and tested in practical contexts, and that seek to produce contributions to the literature.

Other works on IVR acknowledge its potential to produce new constructions, but emphasise more explicitly the role of IVR for producing theoretical explanations of organizational phenomena. Those authors point out that IVR has many similarities to non-interventionist case research, particularly because both can aim to develop novel theoretical results, and share the problems of less control and replicability compared to several other research methods (Jönsson and Lukka, 2006; Lukka, 2005). From this perspective, a key characteristic and strength of IVR is that it is conducted longitudinally, and information is collected in many different ways and very close to when things are actually happening in the case, “along the flow of life of the case” (Jönsson and Lukka, 2006, p. 375). On this basis, IVR studies have the potential to offer also rich and profound descriptions, explanations or predictions – a notable similarity with non-interventionist research (cf. Jönsson and Lukka, 2006).

However, in clinical research, another form of IVR, seeking to produce theory contributions tends to play a very small role (Normann, 1975; Schein, 1987). Some circles of action researchers go as far as to suggest that the role of theory in such research should be dismissed entirely, claiming that the aim of producing theoretical advances, for instance, is a waste of resources and potentially even damaging to the claimed key issue of helping practitioners with their authentic problems (Kuula, 1999).

The methodological literature on IVR in management accounting presents at least two explicated views on the strength of the empirical intervention. One is “modest intervention”, presented by Sten Jönsson and his colleagues in several action research studies (Jönsson, 1996). In this approach, the researcher acts as a co-traveller in the practitioner’s flow of life, neither avoiding interventions nor particularly seeking them. The other view is that, in line with the constructive approach, the researcher assumes a relatively proactive role in not only analysing

practical problems, but particularly in designing and helping to implement solutions thereto (Kasanen et al., 1993; Labro and Tuomela, 2003).

Works on IVR, and empirical studies using the approach, have flourished during the last few decades, and this trend continues. Several books have recently been published on IVR, including numerous reports on case studies employing it (Baard and Dumay, 2020a; Lyly-Yrjänäinen et al., 2017). The journal *Qualitative Research in Accounting & Management* published a special issue on IVR in 2010 (Baard, 2010; Jönsson, 2010; Roberts et al., 2010; Sunding and Odenrick, 2010; Suomala et al., 2010). These books and articles often also build on the authors’ experiences in conducting IVR research, and provide brief examples from their studies. However, very few papers systematically, explicitly and in detail reflect on conducted specific IVR projects (for example, Labro and Tuomela, 2003; Suomala et al., 2014). We believe this is an important perspective, not only because IVR is generally demanding to conduct and, like all research approaches, requires guidance, but also because it comes with its own and partly unique challenges. Adopting the view that a major – though certainly not only – aim of IVR should be to produce theoretically interesting results, we seek to produce a few novel ideas for conducting IVR in this vein.

3. Introduction to the underlying ethnographic IVR study

The underlying IVR study was conducted at a relatively high-tech, well-branded manufacturer of high-end durable consumer goods for global markets (*Alpha*), and focused on management accounting during product development. This involved a doctoral student and his thesis supervisor Marc Wouters. The supervisor regularly visited the company but was basically off-site and coaching the research process. The doctoral student (‘Thomas’, which is a pseudonym) was mostly on-site, working in the product development management accounting department. The field work lasted three years, Thomas defended his PhD thesis after around a year later, and then research papers based on this study were presented in workshops and conferences and submitted to journals.

The underlying IVR study focused on management accounting and product development. The supervisor had been conducting much research in the area, and believed too few studies in the literature described and explained the use of management accounting in product development in sufficient detail. Most papers focused on target costing and considered mainly variable manufacturing costs, but ignored targets for many other costs (such as for product development), and many target-costing complexities, such as incorporating customised products and long supply chains. Furthermore, almost no papers in management accounting addressed cost management with methods that coordinate design decisions across separate product development projects, such as parts commonality and product modularity (Israelsen and Jørgensen, 2011; Korhonen et al., 2016; Labro, 2004; Thyssen et al., 2006). The supervisor was particularly interested in how cost allocations can play a role in the coordination of design choices in multiple product development projects that employ target costing (Israelsen and Jørgensen, 2011).

3.1. Setting up the cooperation as an IVR study

The starting point for this research was when the supervisor read in a newspaper about a project Alpha had run to manage costs through its product design. He considered this a very interesting case of modularity and platforms for cost management, and he was aware that cost management during development was highly important in Alpha’s industry. He wanted to conduct an interventionist study as it could provide access to the organization at an unparalleled level (Jönsson and Lukka, 2006). The topic would require an in-depth understanding of complex product development processes and cost management methods in the industry, which he expected to be very difficult to obtain by ‘only’ visiting the company.

The supervisor approached Alpha around one-and-a-half years

¹² However, what ‘works’ can mean different things, as there are various perspectives on testing the relevance of a particular management accounting research approach (Lukka and Suomala, 2014; Rautiainen et al., 2017).

¹³ A “thick description” (as opposed to thin) goes beyond merely providing numerous empirical details, by including also a *situated* interpretation by the researcher of what is going on in the explored empirical instance (Denzin, 1989; Geertz, 1973).

before the PhD project commenced, and via existing contacts discussed the potential research with high-level managers. After several meetings, the university and Alpha signed a contract according to which Alpha would pay the university over a period of three years, funding the university to hire the doctoral student on a three-year employment contract. The supervisor received no personal compensation from Alpha. A very brief project description noted the research topic in broad terms and that the research would be used for a PhD thesis that would become publicly available. It was mutually understood that solutions would be found to protect sensitive, confidential information. The intended intervention would be modest. For instance, there was no explicit, detailed approach designed before the study that would be 'tested'. The doctoral student would be part of teams and ongoing projects and initiatives, where he would freely contribute his emerging ideas as he saw fit.

The supervisor approached a student he knew from his work as a teaching assistant who was writing his final thesis with him. He believed the student was bright and wanted to convince him to conduct research, and also believed the student would do well practice-wise in the context of Alpha. The student stated he had never considered doing a PhD, but after several conversations over a couple of months said he wanted to take the project on, because he could combine research with working in a company and also was particularly interested in Alpha's industry sector.

3.2. Field work at Alpha

Thomas's practical activities were highly comparable with those of regular Alpha employees. He moved to the city where Alpha was located, several hundred kilometres away from the university. He participated in the work of the management accounting department for product development. He talked with many colleagues inside and outside his department, participated in meetings, had access to all kinds of company data, and took part in informal events similarly to his 'normal' Alpha colleagues.

Nevertheless, some things were different for him compared with Alpha's regular employees. As mentioned above, he was a university employee and participated in some of its teaching activities. He also took some PhD courses and talked regularly with the supervisor about the research. Furthermore, his coach and sponsor at Alpha was a top-level manager in management accounting (pseudonym 'Dr. Meier'), and they talked approximately once a month about the research project. The supervisor met with Dr. Meier and Thomas about every six months to discuss the intermediate results and direction of the research. Also, Thomas collected research data by hand-writing notes in hardcover notebooks during his work in the company, when talking to people, attending meetings, or working on his own, and by storing company texts, presentations, emails, and other documents. He also kept an independent research diary (RD1) to reflect on what was going on in the organization, the research process, interesting topics, and angles for the potential theoretical contribution of the study. The notebooks and the research diary turned out to be important and helpful resources that later provided much information for the empirical parts of two research papers.

The doctoral student, the supervisor and Dr. Meier met about ten months after the start of the project to discuss the more specific research direction. Dr. Meier and Thomas suggested that he might get involved in a project for further developing the company's target-costing system. They wanted to develop a method for including market-based targets for product development costs, instead of the current process of setting such cost targets as basically extrapolations of historic costs. This method would be developed for and applied to a very large product development initiative for a portfolio of new products. Furthermore, Thomas got involved in developing several calculations around key decisions for Alpha's modular product architecture. In the year-and-a-half that followed, Thomas was completely immersed in these practical activities at

Alpha, and the supervisor followed this from a distance. This work at Alpha later provided the empirical heart of the research.

3.3. Theory development, writing, time pressure and uncertainty

When the researchers analysed the data and were working on chapters for the PhD thesis and subsequent research papers, they often felt anxious due to time pressure, and uncertainty about the research focus, although this differed between research topics.¹⁴

The first topic was a methodological extension of target costing approaches. Marc Wouters had done earlier research on target costing and cost management in product development (Davila and Wouters, 2004; Henri and Wouters, 2020; Wouters et al., 2016, 2011a, 2011b, 2009; Wouters and Morales, 2014). Also, in parallel with the very early work in the company, both researchers had been compiling a structured literature review about the current understanding of modularity for cost management purposes, which was published as a chapter in an edited volume. They realised from the outset that the target costing literature focuses mainly on the variable manufacturing costs of single products (Ansari et al., 2006; Cooper and Slagmulder, 1999; Dekker and Smidt, 2003). It scarcely discusses initial, fixed costs and ignores cost interdependencies within a product portfolio. The research objective, as well as that of the practical work at Alpha, was to develop and test a method to extend the scope of target costing: (1) to incorporate market-based targets for initial, fixed costs for product development and production assets that traditional target costing neglects, and (2) to present a partially coordinated approach that enables the management of the costs of a product portfolio, instead of the single-project approach of traditional target costing.

The method concerned a group of new products that were developed jointly and shared a modular technology base. The researchers drew on domain theories on target costing (Ansari et al., 2006; Ax et al., 2008; Gopalakrishnan et al., 2015), and on coordination of product development decisions (Ramdas, 2003). Specifically, the new method was a partially coordinated approach (Ramdas et al., 2003), where some decisions were centrally coordinated but others made separately for each product. The partially coordinated approach fell in between 'perfect coordination' of all decisions for a modular technology base, which Ramdas et al. (2003) called a fully coordinated approach, and 'no coordination at all' in what Ramdas et al. (2003) called the project-by-project approach. The partially coordinated approach was considered more feasible for Alpha than a fully coordinated approach. The latter would require precise information (for example, on demand and product features) for many years into the future on all products that would share the newly developed modular technology base. Working with such information seemed unrealistic for a highly complex modular strategy (Persson and Åhlström, 2006), such as in the case of Alpha. On the other hand, a project-by-project approach (Ramdas et al., 2003) would leave many benefits of a modular technology base unused, because a company focuses on the requirements of the first product to employ the common technology base and design components and technologies accordingly. Follow-up products can reuse the existing technology or develop something new, but that is an ad-hoc decision each time. As a result, many potential cost savings and other synergies in the modular technology base are not realised (Ramdas et al., 2003).

The researchers knew this literature in this domain well, and from the outset recognised the specific fit between the practical topic and the themes in the literature. Their research diaries do not mention time pressure or uncertainty in relation to this part of the IVR project. Around one-and-a-half years into the project, the supervisor already envisioned the paper that was indeed written and published a few years later:

¹⁴ Please note that in Section 3, the term "researchers" refers to the two people involved in the underlying study: the doctoral student Thomas, who did most of the fieldwork on his own, and his supervisor Marc Wouters.

One type of contribution is directed at a ‘method’. The idea to expand target costing to also include target costs for the product development project seems rather lacking in the target costing literature. There are probably some studies, but I don’t recall them. One contribution will be to describe the method for doing this target costing for development costs and to also report actual experiences with this. It’s empirical, but the key point is the method. I’ve shown [Thomas] examples from my own work, in particular the work with Van Hissel and Workum published in *R&D Management*. (RD2, p. 23)

The paper on this topic has been published in a research journal at the time of writing this reflective paper. This part of the research was very close to the TFD mode of conducting IVR. At the same time, it also shows that the TFD mode was not only beneficial for the researchers. A stronger theoretical focus proved also to be relevant for the partner organization. The fact that this part of the IVR research was theoretically informed actually helped to provide a contribution that was also practically relevant for the partner organization.

The other research topic drew on the doctoral student’s involvement in conducting several financial analyses to support a number of far-reaching decisions on the technical concepts for the above-mentioned group of new products. The researchers believed the data gathered through these activities could also be a basis for developing interesting contributions to the literature. They were inspired by papers on the persuasiveness of monetary quantification, how persuasiveness of incomplete and uncertain ‘soft’ information occurs through social processes, and how management accountants try to gain influence (Goretzki et al., 2018, 2016; Jordan and Messner, 2012; Jørgensen and Messner, 2009; Kadous et al., 2005; Rowe et al., 2012). However, their ideas on how this part of the IVR project could advance the existing literature on the domain theory were far less specific than for the other topic.

The focus of this part of the research had evolved over time. It was still within the initially agreed scope, but the researchers needed to rethink their ideas and read up on much new literature. However, the doctoral student was immersed in the practical work at Alpha, the supervisor was busy, too, and for the duration of about one-and-a-half years in the IRV project the orientation to the relevant literature for this part of the research remained quite unspecific, and there was limited explicit and detailed engagement of data and theory. Marc and Thomas still had confidence that they were looking at a very interesting topic and were collecting relevant data, but they also realised that their ideas and discussions needed much further theoretical development. The supervisor’s research diary mentions his uncertainties:

My concern is still that I haven’t found a [...] theoretical framework that helps us better organize and motivate our ideas. I think these are new, interesting, and we have empirical illustrations, but the theoretical foundation is thin. (RD2, p. 48)

An illustrative event that demonstrated the feelings of uncertainty occurred after around three years of research, when Marc and Thomas talked with a very senior peer about this research topic. They had shared summaries of activities conducted in the company, as they had no working papers yet, and the supervisor afterwards wrote:

The conversation with [...] was interesting and pleasant, but also a bit of a ‘reality check.’ My idea was that by sending the two stories in advance, she would also see that these are interesting stories about the influence of accounting, good starting points for our conversation about potentially relevant theoretical lenses. On Thursday, [...] spoke to me during the conference and told me she found the stories not so interesting and she doubted there was enough material to talk from different actors’ perspectives. We have much more than what’s now in the stories and, somehow, what we did include didn’t resonate. ... The meeting with [...] was on Saturday morning. [...] challenged us, saying that these are interesting things, but “as ANT

scholars we already know about accounting and allies. Tell me something I don’t know already.” (RD2, pps. 44 and 45)

Feelings of uncertainty and time pressure manifested again when the doctoral student realised that after more than three years of research he had not spent enough time engaging with and reflecting on the theoretical connections:

For me, this research diary obviously has been a great tool to capture the chronology of my empirical data, that I can later draw on for my thesis/papers. The way I see it now, I’ve not paid much attention to the research process itself in my research diary — such as the ‘back and forth’, the emic vs. etic perspective. (RD1, p. 240)

Marc and Thomas continued writing, presenting and substantially revising their paper, which was still ongoing at the time of writing this reflective paper.

At a general level, these experiences probably resonate with almost all field researchers who have received similar comments on their working papers, felt similarly uncertain about the direction and focus of their research, and have been significantly revising their working papers for several years. Yet, these comments also echo an issue in this part of the underlying IVR project and, we suggest, in many IVR projects. As we address next, the flow of activities in the partner organization may easily lead to focusing too much on the practical (and challenging, and also interesting, as such) matters of/with the case organization, and not enough on the aspects relevant to the etic dimension of the study.

4. The T&PD mode of conducting IVR – and why it dominates

As outlined in the introduction, the core of our analysis in this reflective paper is several worrying aspects of the ‘theme and practice driven’ mode of conducting IVR. The T&PD mode includes a strong focus on the empirical work and reaching practical milestones in an IVR project. This means working (hard) longitudinally with the target organization based on good access, practical problems picked up early on (and emerging later), and the need to prove your practical credibility, which is leading to casting a ‘wide net’ to collect as much data as possible. When this approach to IVR is employed, the wide net is felt to be a necessity, since nearly everything from the empirics *could* matter. While the practical outcomes of the project become visible during the course of the empirical work, what proves to be critical for the theoretical results and contributions receives significant attention only in the back end of the project – and often under considerable time pressure. It is quite typical for an interventionist researcher to feel weak and helpless in these latest stages of the project: they have often already used most of the time (and energy) available for the project, and often perceive a significant gap between the type of work they have thus far done in the field and the typical academic demands, relating to developing theoretical results and academically publishable contributions. All this tends to alienate an IVR scholar, even from other scholars interested in the same substantive fields.

Admittedly, there may be other ideas regarding the aim of IVR than those that we assume, but also in projects aiming eventually to produce theoretical contributions, the T&PD mode seems to dominate. Why is that? We now discuss several reasons for this, concerning (i) the general focus of field research and the practical context of IVR specifically, (ii) self-selection based on the motivation and skills of interventionist researchers, (iii) research project uncertainty regarding the most relevant or promising theorising, and (iv) false sense of reassurance from being busy.

4.1. General focus of field research and the practical context of IVR specifically

The methodological focus of field research in general may promote the T&PD mode. The typical teaching on qualitative research takes its

ideas from ethnographic or other non-IVR types of research (Glaser and Strauss, 1967; Silverman, 2019). While theory is certainly mentioned, collecting empirical data is viewed to be the dominating heart of such research. Against that backdrop, it seems natural initially and primarily to exploit the opportunity that an IVR project offers in terms of unparalleled access and opportunities to gather data.

The context of IVR may strengthen the empirical focus on data gathering, because working on producing practical results is perceived as inherently important. The practical work in the organization seems more pressing and is prioritised, leaving little time for reading, thinking and writing. The researcher is typically part of a project team or department in the partner organization, and tends to feel professionally and personally committed to contributing to the practical work, meeting deadlines, and generally being seen as a good colleague in the partner organization. If that organization funds the research, the researcher may feel even more strongly that practical issues deserve priority. In the case of the underlying study, two extracts from RD2 illustrate this, where the first refers to a paper the supervisor and doctoral student were working on and that was delayed. The third extract is from RD1:

Is [meeting the deadline for] the book chapter still realistic? It's not the most important thing right now—getting the project going really well at [Alpha] is the priority. (RD2, p. 11)

I find that I experience some tension, not too much. But it's clear that in a project like this, I really care about doing a good job for the company. I want them to be happy with how things are going. That has, in itself, nothing to do with the academic research. It's just that I realise that when tough trade-offs will have to be made between the academic objectives and the practical objectives, I will find that a big dilemma. I can already see how, if push comes to shove, it will be hard (psychologically) to give the academic objectives priority. (RD2, p. 12)

I don't want to feel like I'm a theoretical observer, or to be perceived that way, but to provide an active contribution to the improvement of the situation. (RD1, p. 45)

4.2. Self-selection based on motivation and skills of interventionist researchers

The self-selection of interventionist researchers based on motivation and skills may further strengthen the focus on and prioritisation of producing practical results and gathering data. People who choose to conduct IVR tend to be motivated and energised by being involved in the practical work, solving managerial problems, interacting with members of the partner organization, and seeing and doing things 'for real'. They view themselves as also having the necessary social and other professional skills required for the practical work in the partner organization. That is quite a different drive to mainly reading, thinking, and writing research texts, typically working alone. Researchers who conduct IVR may even otherwise not have been involved in academic research, particularly those who consider whether to start PhD research. Furthermore, the partner organization in an IVR project may be involved in assessing and selecting researchers for the project and use their regular professional criteria, which typically places much weight on social and practical skills.

At the same time, a starting interventionist researcher may have less knowledge and fewer skills regarding other research methods, less theoretical background enabling them to connect the rich empirical data to important theories in management and accounting, and fewer academic writing skills. In such situations, an obvious solution would be to help the researcher through PhD courses and guide their self-study to gain more theoretical knowledge that would improve their research skills. However, time can again be an issue. IVR offers often fantastic access but leaves far less time than most other research methods to gain theoretical knowledge and learn research skills. In the case of the

underlying study, this is illustrated by an extract from RD2, when the supervisor was a little disappointed with an early draft of an empirical section of a research paper the doctoral student had written:

I guess this is understandable, because he's a less experienced researcher, he has been part of this (maybe more difficult to take a step back) and he has not had much training in research methods, also not in ethnographic kinds of approach. There's no time for that. IVR eats up all the time. I'll help him as much as I can, but it's again apparent that TIME is an issue for IVR. Data collection takes so much time, there's less left for writing and for taking PhD courses. (RD2, p. 34)

The following extract from RD1 illustrates the very same problem. After more than one-and-a-half years, the doctoral student felt he still lacked focus regarding the research question and theoretical contribution the study could provide:

Partly, this is really due to my current time availability—I work almost exclusively now in the project business at [Alpha]—and for the other part to my lack of experience in writing and developing case studies. (RD1, p. 141)

Especially researchers starting out in IVR may tend to be a little different from many other PhD researchers in terms of knowledge and skills. A single individual would probably not be an equally credible and effective actor in practice, as well as a dedicated and successful researcher in academia. Biathlon illustrates the difficulty. This winter sport combines cross-country skiing and rifle shooting. Athletes have to be very aerobically fit and aggressive for the fast-paced cross-country skiing and then very calm and precise to take accurate shots. Both sports are difficult enough, but it is the combination that makes it especially challenging. Similarly, IVR requires a difficult combination of knowledge, skills and motivation, illustrated by an extract from RD2 of the underlying study:

I should also talk separately with [Thomas] about how it's going with his note-taking, reflecting theoretically, and the research method section. Maybe this sounds critical of [Thomas], as if I worry that he may not be a 'good' researcher. That's not it. I have a lot of confidence in him. It's just that I worry that this interventionist research may be too difficult for *anyone* – even [Thomas]. We have such difficult and very different kinds of expectations and requirements which he has to meet. He has to be seen within [Alpha] as a good colleague, in the sense of competent, hardworking, pragmatic, team player, etc. And I and Kari want him [in addition to these] to be a good researcher, in the sense of reading, thinking, writing, etc. Those are very diverse competencies to combine in one person. (RD2, p. 22)

4.3. Uncertainty of the research project regarding the most relevant or promising theorising

Uncertainty of the research project's empirical focus is likely yet another reason why the T&PD mode seems to prevail in IVR. Researchers may feel it is too difficult to even try to focus the research in a meaningful way early in the process, when so little is known of what will happen in the empirical study and what could be theoretically interesting in the context of the practical project. They may also believe that the T&PD mode prevents the imposition the researcher's theorisation on empirics, and not being open to surprises, which are viewed as the unique strengths of qualitative field research.

Moreover, even if the empirical scope was at one point clearly planned and the theoretical focus carefully chosen with that in mind, surprising developments and new constraints in the partner organization may change the scope of the empirical study. Every case study may take unexpected turns, but specifically in IVR the organization is a research partner with real interest in what happens in the study, and can

influence the scope. The initially chosen theoretical focus may lose its feasibility in view of the available empirics. The researcher will need to rethink and may find they are far less familiar with the new topics and theories that have become relevant to the research. An extract from RD2 illustrates this. The supervisor felt quite unsure following a discussion with another researcher on the project's potential contributions. Maybe part of the research project had shifted in a direction where his theoretical knowledge was not deep enough:

In case studies, I've always been led by observations that struck me as especially intriguing, taking those as the starting point. But maybe the literature I've now ended up in is something I simply didn't know well enough to judge whether something that intrigues me is new. Of course, I've been thinking and going to the literature to 'check' but maybe not early enough, maybe not deep enough. Should I have talked with [Thomas] more, discussed his empirics more and earlier? (RD2, p. 46).

4.4. Being busy—and the false sense of reassurance it brings

A further reason as to why the T&PD mode prevails could be an apparent lack of time to work on a more theoretically driven focus parallel to the practical involvement with the partner organization. The researcher has great access and many opportunities to collect data. In order to leverage that opportunity, the researcher interacts with a large number of people to identify interesting information, and is also often approached by individuals in the partner organization. "Interactive time" (Perlow, 1999) tends to be very high, and even though the researcher may want to reduce it for a better balance with "quiet time" to develop a much more explicit and detailed theoretical focus, this rarely happens, leading to feelings of time pressure or "time famine" (Perlow, 1999). The following extract from the supervisor's research diary echoes the time management worry:

That's really THE dilemma of interventionist research: fantastic access, but how to get enough time to make full use of it. (RD2, p. 49)

The doctoral student's research diary (RD1) includes expressions of a corresponding sentiment, written after he had eventually participated in a certain PhD course:

Now I can spend my time on the normal work again. Even though the seminar was very exciting and relevant, I feel it came at an inopportune moment: I currently have a lot of time-critical things to do. (RD1, p. 100)

Paradoxically, feeling busy may also create false sense of reassurance, which can reinforce the tendency to stay in the T&PD mode. For instance, when the interventionist researcher is a doctoral student, as in the underlying study, they are easily tempted to feel busy enough and accomplishing worthwhile things because of what is happening anyway as they work in the field. There may still be a nagging feeling of insufficient progress in the academic part. The supervisor is usually busy, too, and may not be able to give any particular researcher much special attention – and perhaps least of all a PhD student conducting IVR, because the researcher tends to be largely out-of-sight in the field, and the supervisor realises the researcher is anyway busy there. Compare that to the situation, typically quite different to an IVR case, where the PhD student has nothing to show the supervisor (or themselves) unless they are writing something and, moreover, the supervisor realises the researcher can make little progress unless they meet and discuss the research. Here, compared to IVR, the supervisor and the researcher are less likely to experience a false lack of progress on the theoretical part of the research. The following extract from RD2 echoes these challenges:

I probably need to interact more and differently with [Thomas], to help him reflect on what's going on at [Alpha] in light of the

literature. ... Compared to a 'normal' PhD research project, it's much further away. I don't (only) mean geographical distance, but also that normally the PhD student's 'world' is the literature that a supervisor knows or has easy access to, and data that can easily be shared. But here, [Thomas's] world is [Alpha], which is much less accessible to me, it claims all his time, and it's at another location. There is far less joint time, knowledge and 'data' for both of us. (RD2, p. 69)

5. The TFD mode of conducting IVR

How could IVR be conducted differently? The TFD mode is from the outset determinedly driven by the aim to produce a theoretical contribution, and does so by outlining and testing throughout the entire process various options for a theoretically motivated research question (and theoretical ambition). This comes down to investing early in identifying such a question, yet not fixing it too strictly or too early. TFD renders a process focused on theoretical work alongside working in the field, and at the same time highlights the employment of the researcher's distinctive resources, namely their theoretical knowledge (Lukka and Suomala, 2014). Having a better theoretical direction from the early stages of the research offers several important advantages, for instance in saving precious time through more focused reading, data collection, asking questions, and making observations. But it is not primarily about saving time, it is essentially about enhancing the depth of the analysis, which even a preliminary theoretical focus allows for the researcher. It also offers an opportunity to try out interventions driven by the theoretical ambition, if that would fit the research questions and the specific research design employed. In addition, it gives the researcher an opportunity to contribute to dealing with, even solving, practical problems from fresh, often theoretically well-informed perspectives.

It is important to note that the TFD mode is a *way of working*, not a characterization of a research paper *per se*. Strong theoretical contributions can be produced in many kinds of IVR processes, and also through the T&PD mode. For example, even were the field work conducted without a strong theoretical focus, the empirical material could be theoretically framed (and reframed) after the field work, perhaps by the original researchers (though in this case under considerable time pressure and a great deal of stress), maybe with new authors in the team, and perhaps guided by reviewers and editors who could provide constructive theoretical suggestions as input. Hence, we cannot tell just by reading a published IVR-based paper which mode has been employed in the research process. However, what we essentially argue in this paper is that the *likelihood* of being able to provide a strong theoretical contribution is higher when employing the TFD mode than the T&PD mode.

One notable concern regarding an approach that starts theory development only after the field work, or late in its process, is that the authors, due to a lack of specific focus, may have collected a great deal of material that is not of great interest. In addition, many opportunities for gathering information that would have been important for theory development may have gone unused. While producing strong theoretical advances is of course also possible in such cases, their emergence may often be almost accidental.

Admittedly, a potential downside of much up-front theorising is that researchers may become less open to surprising new observations. Consequently, at worst, the initial focus would effectively inhibit the emergence of any change of focus even if that might be well supported by some new surprising findings. Hence, openness and flexibility remain crucial also in employing TFD. Related to this, TFD may well rely on an abductive process, similar to the idea of going "back and forth" between data and theory (Ahrens and Chapman, 2006). Thus, in employing the TFD mode, it is extremely important that researchers listen carefully to what the empirics tell them, and, if necessary, revise the direction of

their theoretical ambition. Therefore, particularly the following aspects apply to an IVR project:

- The field material can inspire the researcher to change direction, as is the case to some degree in any longitudinal field research. Further, as the researcher is continuously and closely collaborating with the participants of the target organization, there may be many opportunities for those actors to put ideas to the researcher that have a theoretical bearing.
- The interests and direction of strategic or other practical ambitions of the target organization may change. For instance, it may no longer be possible to study particular topics or gather particular data. As a result of such changes in the empirical scope of the study, the initially chosen theoretical focus may lose its feasibility. In other words, when the practical circumstances lead to studying different topics and gathering other kinds of data, it may become necessary to change the theoretical focus of the study, too.

There is some similarity between the distinction between the T&PD and TFD modes and the difference between the two major versions of Grounded theory. The first version, presented by Glaser and Strauss (1967) in their classic book, stresses the strongly inductive and ‘open’ approach as the backbone of grounded theorising. Later, Strauss (1987) and Strauss and Corbin (1990), suggested an alternative version for grounded theorising, which is more programmatically focused on teasing out theoretical advances with the help of certain analytical weapons. The Glaser and Strauss version resembles to some extent the T&PD mode, while the later version has certain similarities to the TFD mode of conducting IVR (Glaser, 1992; Strauss, 1987; Strauss and Corbin, 1990).¹⁵

While it is impossible and inappropriate to recommend any definitely preferred approach to IVR (as is the case for any other type of research), given that there can always be unpredictable contingencies in the picture in any particular research project, we believe interventionist researchers should be more widely aware of the fact that there are research strategy options from which to choose. As for choosing between the often routinely adopted T&PD mode and the TFD mode, it is crucial to realise that switching from T&PD to TFD is largely only a *change of mindset*, which is not necessarily much more costly to carry out.

The key differences between the TFD and T&PD modes of conducting IVR research are summarised in Table 1. The table and the body text have a somewhat different structure in order to make the table self-explanatory. Some of the aspects in the comparison between the T&PD mode and TFD mode appearing in Table 1 have not yet been mentioned in this section, but will be opened up in the following section.

6. How to make use of the TFD mode in practice?

We will suggest some methods and aspects to pay attention to that can be helpful for putting the TFD mode into practice. To begin with, it is worth acknowledging two important facets of conducting IVR research that will remain common to both modes. First, IVR research requires ‘rolling up your sleeves.’ An interventionist researcher is largely like a colleague in the partner organization, that is to say, they are flexible, get involved, and help out (also with some mundane matters). This means accepting some temporary compromises, because these activities have often, as such, little to do with the core of the research itself. However, rolling up your sleeves enables the researcher to become familiar in more detail with the work, the terminology, and the people, and the researcher may in the process discover things and be surprised in ways that might otherwise not happen. Thus, it can also be a way to collect

¹⁵ It is worth noting that the intellectual divergence between Glaser and Strauss led to Glaser vigorously defending the original version of Grounded theory, for instance in his book of 1992.

Table 1

Differences between the ‘theme and practice driven’ (T&PD) and ‘theoretical focus driven’ (TFD) modes of conducting IVR.

	T&PD	TFD
Main focus and driver of research	Empirics and practical concerns, with research literature and theoretical concerns more implicit	Research literature and theoretical concerns, jointly with empirics and practical concerns
Focus of data gathering	Broadly cast exploitation of data-gathering opportunity, driven by general themes and practical concerns	Selective, purposeful data gathering, driven by theoretically motivated research questions
Research question/theoretical ambition	Remains implicit and/or at a very general level for a longer time; researcher is working on these towards the end of research process	Researcher works on these from the beginning, trying to explicate these as early as possible, still being open to iterations
Time management	Much time spent on practical matters and broad data gathering, towards the end sense of rush because of urgency to provide a theoretical contribution	In addition to field work, the researcher invests extra time up-front for developing the theoretical focus, creating early time pressure, but less sense of rush later, because of having a clearer theoretical focus
Nature of interventions ^a	Practically emerging, drawing on researcher’s theoretical background	Theoretically driven by the research question and inspired by the fieldwork
Presentation and write-up of research	Presentation and write-up for an academic audience start rather late	Presentation and write-up for an academic audience start early, viewed as a process, starting with a series of two-pagers
Use of chronological research diary	Focus on the documentation of the broad data collection and description of the research process	In addition, documentation of researcher’s iteratively developing theoretical ideas and research focus

^a Distinction less applicable in case of a modest intervention.

data. Furthermore, it can help the researcher become accepted and thereby indirectly help in data gathering later, because they get to be seen by “*the community in which the researcher does the fieldwork ... as a competent and trustworthy member, and ‘insider’*”. *This acceptance is crucial not only to understand the meanings and actions of the actors in the field, but also to enable the researcher to communicate and act together with them.*” (Suomala et al., 2014, p. 305).

In the underlying project, we had similar experiences. Before the project started, the top manager Dr. Meier said he believed it was important for the doctoral student to help out with the regular work of the department, and he came back to this about eleven months after Thomas had started work, as reported by the supervisor’s RD entry:

Yesterday I visited [Alpha] to talk about the more specific direction of [Thomas’s] project. I like that [Dr. Meier] was consistent: Already in the beginning, [Dr. Meier] said to me it was important that [Thomas] also helped out in the department, to gain acceptance as a colleague and get cooperation for his research. He also said he wanted to reassure me that [Thomas] is not there to ‘make copies’ as an intern and all the things he has done for the group were also directly related to the topic of modularity. He said it’s a fine line and [Thomas] was doing this very well. (RD2, p. 19)

Second, IVR research can be used as a way to attract potentially talented researchers. In our experience, there is a particular type of intelligent and bright person who would have the skills for the practical part of IVR, but is not interested in becoming a doctoral student. They envision going to work in practice and making a career there. Sometimes they are also a little relieved to be finished with studying, and ready to move on. In so far as they would have contemplated becoming a doctoral student, they prefer that their research results would be related to practical problems and not solely driven by theoretical questions, which

they often find boring, ‘dry’ and distant from practical concerns. IVR enables these people as doctoral students to interact with practice, which they may find alluring. In the case of the underlying IVR project, the supervisor had talked with two very good students for a potential follow-up project at Alpha:

[Both] said they did not consider doing PhD research, but the combination [of research and working at Alpha] they find interesting. That was also true for [Thomas]. Really, sometimes IVR is the way to draw talented young people into research who otherwise would not do that. (RD2, p. 32)

We turn next to highlighting the main aspects that particularly feature the TFD mode and that have not been addressed so explicitly in earlier works on IVR.¹⁶

6.1. Using ‘two-pagers’ to crystallize key theoretical ideas

The mindset change from the T&PD to TFD mode may quite radically revise the research project process. One option worth serious consideration is to work continuously with ‘two-pagers’, where the research question and especially its theoretical motivation receive a great deal of attention – but not as a static entity. The process is flexible and the researcher revises their two-pager, parallel to the ongoing interaction between the researcher and the participants of the partner organization, and possibly interventions in the organization by the researcher (Suomala et al., 2014). The collaboration should be viewed as a series of tests on whether the current formulation of the motivated research question and the ideas related thereto ‘fly’. If not, which can happen for numerous reasons, the researcher should soon consider going back to the drawing board in order fruitfully to revise the theoretical focus in the ‘two-pager’. The two-pagers are normally not written with the intention to be shared with participants of the collaborating organization.

Executing the research process assisted by ‘two-pagers’ tends to support its typically abductive nature (Dubois and Gadde, 2002; Lukka and Modell, 2010). The very point of the TFD mode becomes salient: The interventionist research should revolve around not only practically relevant, but also theoretically interesting issues. Writing a series of two-pagers over the trajectory of the IVR process attempts to increasingly better crystallize what it is that gets theoretically problematized in the study, with the help of going back and forth between empirical findings and selected theoretical resources to be employed. As noted earlier, these resources *must* connect to a certain domain theory – for instance to target costing in the context of NPD – and they *optionally* can include method theoretical elements – for instance theories on building work identity as applied in understanding controller’s role change. It implies the researcher *must* start charting the potentially relevant literatures early in the process, and determinedly make time to do so, however alluring (or binding) just conducting the field work and self-immersing in the often endless practical challenges in the research collaboration at the emic level may feel. A lot of ‘thought-work’ (Van Maanen, 2011) in the abductive vein is needed in developing a more and more exciting two-pager, which functions, at best, like an engine at the heart of the project. Of course, no clear rules exist for such abductive thought-work – it represents the creative and tacit element true scholarship requires. The TFD mode seeks a balance between emic and etic work in an IVR project (Jönsson and Lukka, 2006; Lukka and Suomala, 2014). Precisely this mode of running the IVR process makes it possible – should the researcher so wish and the situation allow – to conduct

¹⁶ A few books provide practical recommendations on conducting IVR research that are not specifically related to the TFD mode, such as on ethics applications, budgeting IVR projects, data gathering and analysis, various aspects of acquiring and maintaining access, the potential of social impact, as well the various forms and roles of research intervention (Baard and Dumay, 2020a; Lyly-Yrjänäinen et al., 2017; Suomala and Lyly-Yrjänäinen, 2012).

theoretically informed interventions that have the potential to aid in testing the research ideas, and can lead to more innovative or surprising practical results beneficial to the partner organization.

As for the distinction between domain and method theory (Lukka and Vinnari, 2014), domain theory is certainly the area where the ‘overlap’ between the theoretical and the practical interests happens. Method theory, if such would be employed by the interventionist researcher, is unlikely something that the members of the collaborating organization need or care to know about. Regarding the interaction during the field work, the method theory that is *possibly* employed by the field researcher, can well remain in the background and be not very visible to the practitioners in the field. The domain theory is likely to appear more in the interaction, even though it may well be that the researcher has to translate some parts of the terminology of the employed domain theory to more accessible talk and writing in their interaction with practitioners.

The process around a series of abductively developing ‘two-pagers’ helps allocate the researcher’s time more carefully. While this technique was not employed in the underlying study, Kari Lukka has for many years used the two-pager method in his own research and in his PhD supervision as well as instructed and recommended it in his teaching of research methods. Hence, he has profound first-hand experience of the numerous advantages the use of ‘two-pagers’ brings, and how this method can best be utilised. Developing two-pagers explicates the theoretical possibilities that the field work will offer (which can often, at least to some extent, be pre-shadowed), and the theoretical motivation to explore them. Specifically, this approach helps the researcher develop the specific *direction* in which they wish to proceed theoretically.¹⁷

But how can an interventionist researcher know very early on, perhaps even before the true start of the empirical process, which topics for writing a ‘two-pager’ are going to be researchable in the partner organization? Our response would be: Very often the researcher surely just cannot! Hence, there is a point at which it is too early to even try to develop the project’s theoretical research question, so we should not over-invest in theoretical work too profoundly, too early. That said, a broad theoretical idea or interest in something can be present even before there is any idea of collaborating with a partner organization. Does having a theoretical idea or interest in mind make it more difficult to obtain access to a partner organization because it limits their number? Why not first try to negotiate access to an interesting organization and then look for a topic? Our response is that it may not be realistic or productive. A researcher stating only that they want to collaborate on ‘any’ topic is likely too vague to negotiate access, or such a starting point may randomly lead to a topic that is too far from the researcher’s expertise. The need to indicate early that an interventionist researcher’s ideas have at least some potential to benefit the participating organization becomes clear in the analysis of Suomala and Lyly-Yrjänäinen (2012, p.108–110), too.

During the first interactions with a potential partner organization, the indistinctness of possibilities will normally start to vanish, along with which there will be better opportunities to work on the theoretical ambition with ‘two-pagers’. Overall, it is worth stressing that the process is in most cases certainly iterative – just as abductive research processes tend to be quite naturally. This should not be a matter of finding a weak compromise between a researcher’s ‘grand’ ideas and the organization’s ‘practical’ or ‘mundane’ concerns, but it can involve enriching the initial focus based on research ideas and opportunities (e.g., activities the researcher can participate in, or the availability of data) that may arise in the conversation between the researcher and members of the partner organization.

Later in an IVR project, some research topics may turn out not to be

¹⁷ Based on the experiences during the underlying project and from conducting the research for this reflective paper, the supervisor started using the two-pager method in two follow-up IVR projects.

possible or interesting, and new opportunities for unforeseen research topics may arise. Such unpredictable twists or other inputs from the partner organization may risk leading the researcher into uncharted fields. This risk is real in IVR projects, since they almost inevitably have some longitudinal element – they tend to last from several months to several years (e.g., Suomala et al., 2014). We suggest there are two options for the researcher to choose from, if they encounter such twists: not to go there, which might at worst mean the end of the project, or to accept the revision of plans in the emic domain, and start working on it with the help of ‘two-pagers’ also in the etic domain, thereby returning to the very principles of the TFD mode.

6.2. Writing a chronological research diary

In addition to the ‘two-pagers’, we suggest taking advantage of a meticulously kept, chronological research diary. Normally this is much like RD1 in this paper, that is, the research diary that the primary field researcher kept and updated (Jönsson and Lukka, 2006). The diary should definitely be started on day one of the project (including all the brainstorming typical at the outset), and it is even more important when there is a team of researchers collaborating. A shared research diary forms a natural memory and meeting point for those researchers. In the TFD mode, the research diary not only documents the research process and data collection, but also keeps a record of the researcher’s iteratively developing theoretical ideas and research focus.

Notes should routinely be taken on everything that can matter in a piece of research: brainstorming sessions concerning the main theoretical ideas, development of the research question, and its motivation; empirical observations; brief impressions collected directly after each interview; conducted interventions, their motivation, and observed effects; the development of the theoretical storyline, and conclusions over the entire abductive process. All kinds of materials (such as photos of your hand-written diagrams on flipcharts), and references to many kinds of things (e.g., a researcher’s own tables organizing data, presentations given or received, key e-mails received or sent) can and should be included. In the underlying study, some of the notes in the research diary were handwritten in hardcover notebooks, because that was sometimes easier to combine with the doctoral student’s practical activities company. In our experience, the final research project report typically advances in the research diary, which is especially helpful for the researcher (team) in the last stages of the project.¹⁸

Another important principle is that when an entry on, for instance, a certain day, period or event is closed, it should not thereafter be revised. Should something to comment on or revise arise later on the same matter, it should be handled in a new entry. Only thus can the authentic process of the project be documented and the ‘audit trail’ be retracable. Keeping a careful, informative research diary certainly requires discipline on the part of the researcher/research team, but it is worth it. In our experience, that document can become the lifeblood of the entire project.

For an IVR project that involves a doctoral student and a supervisor, we suggest the supervisor also keeps a (separate) research diary. It could be valuable due to the above-mentioned danger, particular in IVR, that a doctoral student receives less attention from a supervisor who has a false reassurance that the student is kept busy and making progress in the partner organization. The supervisor’s research diary would keep track of how much attention the doctoral student is given, and ‘confront’ the supervisor with paying too little attention. The separate supervisor research diary is also important in relation to the dynamics of the research process, which is also particular to IVR. The collaboration with the partner organization – not just data gathering in the field – creates

new pressures, opportunities and constraints regarding the research. Against this backdrop, a separate diary can be helpful in capturing the supervisor’s own thoughts, also about the research process (such as feelings of frustration about their inabilities and mistakes, or of joy in making good research progress). This is nicely illustrated in an email from Kari to Marc:

Your RD mostly from the supervisor’s perspective is very interesting. I think this style of keeping an RD is useful for us. I especially like the emotionally tuned notes, which could be a starting point for something really exciting! (RD2, p. 70)

6.3. Finding a common area for collaboration

In the TFD mode, the topic for the practical collaboration is defined, and the researchers have their own specific and developing research questions. The challenge can be to find a sufficiently common area for collaboration. Tensions may arise in the TFD mode, because the researchers develop a stronger agenda of their own, which is not merely (or primarily) driven by the collaboration in the practical work.

The researchers can explain to the partner organization their ambition to develop a theoretical contribution that is respected by their peers, that is, accepted for publication and cited. That implies the research and its results cannot be entirely confidential, although particular proprietary and sensitive information can be disguised, as is typically the case. Also, the partner organization can make its own objectives for the IVR project clear. While IVR is surely not a substitute for (short-term) consulting projects, the partner organization may expect that the researcher genuinely cares about creating results that are of practical relevance to the organization, and also driven by its (long-term) practical needs. It depends on the nature of the organization, what type of practical relevance has to be considered. We suggest the TFD mode as an option for all interventionist researchers, regardless whether the collaborating organizations is of for-profit or non-profit type. In the latter cases, the important relevance may well be societal or ecological by nature (Lukka and Suomala, 2014).

We believe the researcher’s and partner organization’s goals should have equal status. Collaboration between academics and practitioners in research has been criticised as unequal and “*still limited, because it involves practitioners on academics’ terms*” (Bartunek, 2007, p. 1328). However, the collaboration can be equalized by recognising that practitioners and researchers have not only different, but also evenly important objectives for an IVR research project. Equality in that agreement means that *the collaboration also involves academics on practitioners’ terms*. This effectively would lead to a collaboration in the spirit of “*engaged scholarship*” (Van De Ven and Johnson, 2006).

Shaping an area for collaboration could also in the TFD mode be inspired by the practical priorities of the partner organization, but then it is crucial, from the outset, that the researchers investigate and verify these practical topics are connected to important and open questions in the literature (Labro and Tuomela, 2003). Conversely, the starting point can be a topic the researchers formulate, since they are aware of important open questions in the literature for which an IVR project would be a suitable research method. They could then approach companies that would qualify as relevant potential research partners for such a project (Labro and Tuomela, 2003). Researchers could get ideas about what companies care about, and establish contacts by organizing informal interactions and connections with practitioners, such as focus groups, roundtable discussions, or by reading outside the academic literature and socialising outside their own academic circles (Rynes, 2007).

Since in the TFD mode both parties have their own goals, tensions may arise during the course of the project. The researcher may need to revise the research question due to changing practical preferences, which is fair, because the organizations’ expectations are also at stake

¹⁸ Taking this paper as an example, it is based on two different research diaries (RD1 and RD2), as noted in the introduction. In addition, there is even a third research diary that is directly related to writing this reflective analysis.

(Suomala et al., 2014). The partner organization has the right to have an influence on the direction of the research – that is part of the deal, and crucially different in IVR versus more conventional non-IVR (longitudinal) case studies. In TFD mode, however, the research questions are formulated early and matter a great deal to the researcher, so having to change them due to practical circumstances that would make it impossible to focus on those research questions can create much more tension compared with the T&PD mode. Thus, the challenge is to find common ground, a fruitful balance (Labro and Tuomela, 2003; Lukka and Suomala, 2014; Suomala et al., 2014). It involves understanding what practitioners care about, and developing a research question that is theoretically strongly motivated in the TFD mode. Finding common ground potentially also involves renegotiating the empirical focus, if the partner organization or researcher would wish to change course.

In the underlying IVR study at Alpha, it was fortunate that the main contact person, a top manager at Alpha, had a PhD degree and understood and generally respected the fact that researchers have scholarly objectives. After about a year and a half, the manager, the doctoral student, and the supervisor agreed that the practical goals had almost been reached, and more time was going to be spent on writing up the research reports (although it still proved difficult to actually realise this):

Today at [Alpha], [Dr. Meier] expressed at the start that he is very happy with the work [Thomas] is doing for [Alpha] (“extremely interesting, very exciting”). As far as [Alpha’s] expectations are concerned, that is basically ‘done’ (“checked”). The danger is that it’s all so exciting that it could suck up all of [Thomas’s] time and we could lose sight of the actual purpose of writing the thesis. At the end of the meeting, we came back to this and all agreed that [Thomas] would start to set aside more time away from [Alpha] to write. (RD2, p. 24)

6.4. Making use of research participants’ theoretically interesting ideas

Participants from the partner organization may bring forward ideas, thoughts and beliefs that have a theoretical bearing and, we suggest, can be utilised in the research. Especially in the TFD mode, the researcher is keen to learn what participants have to say that could be of theoretical interest, and the researcher can be more alert to such ideas, since they may resonate with the researcher’s explicit theoretical suspicions, ideas, doubts, and questions. Making use of research participants’ theoretically interesting ideas changes the role of partner organization members, compared with conventional non-IVR case studies where they are not directly involved in the research, but they are simply there for the practical issues and to contribute the emic data that the researcher employs in the etic domain. Non-IVR research is not normally designed so that partner organization participants are also talking about what is interesting about their case from the researcher’s perspective. In IVR research, however, and particularly in the TFD mode, members of the partner organization can talk with the researcher and contribute ideas, even though the objective of the collaboration for the latter is seldom producing theoretical results. This is in line with the ideas of “engaged scholarship”: “Instead of viewing organizations and data collection site and funding sources, an engaged scholar views them as a learning workplace (idea factory) where practitioners and scholar coproduce knowledge.” (Van De Ven and Johnson, 2006, p. 809).¹⁹

In the underlying IVR project, the Alpha top manager and the supervisor started to discuss follow-up research, and the manager came up with interesting ideas for research opportunities concerning the analysis of big data on actual costs and cost targets, and looking at accountability at the level of simultaneous engineering teams:

[Dr. Meier] came with a very interesting suggestion, namely to study the new SE [simultaneous engineering] teams and how controlling is part of that. It’s a ‘micro cosmos’ where many things come together. These teams have to make decisions that involve incredibly complex trade-offs. How can the decision-making be delegated to them and make ‘sure’ they consider the wider implications? It’s related to our topics, at the level of SE teams. I liked this. I said it also opens up the possibility to compare these teams (I think [Dr. Meier] then said there are around 280 of these teams) with qualitative and quantitative data (such as surveys among SE team members). He also mentioned a second topic: [Alpha] has a lot of data about material costs of cars. There’s a separate department producing reports about this and they have been doing it for a long time. Can we do more with such data, for example to support purchasing negotiations? (RD2, p. 39)

6.5. Writing and presenting for an external academic audience early

Probably more so than researchers who use other research methods, and who need not be active in two different domains, an interventionist researcher is very much immersed in the data, and may especially benefit from help to reflect on the theoretical aspects of the findings and their potential for contribution. We therefore recommend engaging with an external academic audience early on – to present ideas in informal sessions, write a working paper, present at conferences and workshops, talk individually with peers, and “actively seek opportunities for disclosing ... findings and assumptions quite early” (Suomala et al., 2014, p. 311). Especially in the TFD mode, the researcher has the academic audience in mind from the outset; academia is, after all, ultimately the intended audience for the work. Moreover, in the TFD mode, the researcher may also have something to say early on, for example, in an informal research workshop at their own university. Writing and presenting for an external academic audience early in the research process requires the researcher to step away from the challenges, pressures, successes, and problems emerging in the collaboration with the partner organization, and ‘wear a different hat’ to look at the data with another mindset—that of a researcher who aims to develop a theoretical contribution to the literature.

In the underlying IVR study, either the doctoral student or the supervisor delivered a brownbag presentation at the university, accepted an invitation to write a literature review for a book chapter, wrote a teaching case, prepared presentations on IVR for academic colleagues, discussed their early research findings with colleagues, and presented and discussed early versions of working papers.

In the last weeks, [Thomas and I] have been talking quite a bit and writing the book chapter. ... I’m very happy we have this commitment. It helps me to get into the literature even more and to develop a better feel for the connections between what I read and see. (RD2, p. 18)

As final recommendations, we address specifically the not uncommon situation that a PhD researcher is the interventionist researcher at the partner organization, while a supervisor stays mainly at the university. In the underlying project, this was the case. However, it was very useful that the supervisor also visited the partner organization twice a year and discussed the research with several of its members. It is also helpful if the PhD student and the supervisor regularly (e.g. every two weeks) discuss the research on the basis of an evolving text for a paper or thesis chapter, starting with two-pagers. This was not done so strictly during the underlying project, but the supervisor did this in a follow-up IVR research project. Another recommendation for the interaction between the PhD researcher and the supervisor is to separate two objectives: First, in IVR research, particularly intricate and complex information about what happened in the organization can be gathered. The supervisor will have a role in helping to decipher that information,

¹⁹ See also Suomala et al. (2014), Section 2.3., for more on these kinds of issues.

to digest it, and in making it accessible as empirical material in research. Second, the supervisor should also deliberately preserve focused time to help in clarifying one of the most important aspects of an IVR piece: what do we learn from that, theoretically?

7. Conclusions

A definite strength of IVR research is the ability to establish particularly good and deep access, and to collect exceptionally detailed information, which is seldom available to researchers using other approaches. Yet, a challenge for IVR is fully to exploit this data-gathering opportunity to develop a theoretical contribution. We were motivated by our many-sided experiences with IVR, and a common worry that many interventionist studies seem to be driven primarily by excitement about practice, and have an implicit theoretical slant, which we coined the ‘theme and practice driven’ approach. We contribute to the IVR-focused literature by conceptualising the ‘theoretical focus driven’ approach to IVR research as an alternative. We believe this approach can help interventionist researchers invest early in the research process, committing time and attention to developing a theoretical focus and ambition. This focus needs to be flexibly employed, though not only due to the often unpredictable circumstances in which an interventionist researcher has to work, but also since the researcher may learn surprising new things to focus on during the research process. We argue that many advantages can be gained by applying a theoretically tuned mindset from the very first stages of these projects.

The mindset that accompanies the TFD mode leads the researcher to concern themselves with the emic and etic domains simultaneously and in a concerted manner. It does not mean that the researcher should make compromises regarding their emic level collaboration with the partner organization. Focussing on something that is theoretically relevant but not of practical interest would likely render the TFD mode impossible. However, that is not what we recommend. Also in the TFD mode, the explicit goal is to look for an overlap: topics for collaboration in IVR that are both theoretically founded at practically relevant. Finding such a sweet spot is also a negotiation process, where both parties are equally, important, yet from their own different starting points. The key idea is that the TFD mode would lead the researcher to become conscious – right from the start of the project until the end – of the etic level (theoretical) ambitions, resources and outcomes. The ideas related to the evolving theoretical ambition of the research inhabit the interaction between the partner organization participants and the researcher, and therefore the researcher is inclined to perceive notably less distance between the domains of practice and theory. Compared to the T&PD mode, also researcher’s time is allocated differently in the TFD mode, which also contributes to alleviating feelings of time pressure or “time famine” (Perlow, 1999).

Our analysis was reflective in nature, drawing on material from a recent interventionist research project – a doctoral dissertation supervised by one of the authors – to fashion examples for our reflections. The plan to write the paper was made several years ago, which allowed us systematically to collect material from the IVR project in question, particularly in the form of the separate research diaries kept by the doctoral student and the supervisor. However, our analysis and suggestions are certainly not intended only for PhD students, but also IVR researchers in general.

Encouraging the increasing application of the TFD mode among scholars would require an element of collective learning. We would need more and more wide-spread knowledge and understanding of IVR overall, and specifically of the TFD mode, as well as examples of how it could be employed in research practice. This, in turn, would require changes in the education of especially qualitative researchers: not only on the default assumption of targeting non-interventionist research, and not only stressing the T&PD mode. Adopting the TFD mode would also lead to slight changes in the typical structure of research contracts to secure sufficient timely resources to employ the TFD mode. While this

particular paper navigates the field of management accounting, based on our *ad hoc* observations from other fields where IVR seems to be rather popularly used (such as information systems science and engineering sciences), adopting the TFD mode might be equally helpful in avoiding overly one-sided empiricism, and making the studies more theoretically advanced and productive.²⁰

While employing the TFD mode is inclined notably to support IVR projects, in terms of their scholarly quality, IVR still remains challenging. Compared to typical non-interventionist case studies, IVR takes up considerably more time due to the in-depth practical collaboration with the research organization.²¹ It requires an unusual combination of diverse skills; it is difficult to find organizations that are suitable and willing to be partners in an IVR project; the precise direction of the study may be less predictable because the practice partner has a great deal of influence on the empirical scope of the study; and, it is still a somewhat less established approach to research, and may thus be perceived as a riskier choice. The TFD mode does not solve all of these problems, but we have suggested how it can help alleviate some of the caveats of IVR, particularly for capitalising on some of the strengths and potential of IVR to produce theoretical contributions. Moreover, the TFD mode enables a better view of the full practical *and* scholarly potential of IVR, and also contributes to the further identity-building of interventionist researchers precisely as *researchers*. The TFD mode is a good fit with the call to balance the various aspects of research relevance: practical, theoretical, and thereby potentially also societal relevance (Lukka and Suomala, 2014). The TFD mode can also help us better appreciate the very much under-used potential of “engaged scholarship”, or other kinds of intensive and genuine research collaboration with practitioners.

Data availability

Data will be made available on request.

Acknowledgements

We are grateful for comments received from participants when presenting the paper at Tampere University, Turku School of Economics, and Stockholm School of Economics. We would like to thank, in particular, Martin Carlsson-Wall, Kalle Kraus, Teemu Laine, Thomas Korhonen, Jan Pfister, and Frank Stadtherr for their thoughtful feedback and suggestions.

References

- Ahrens, T., Chapman, C.S., 2006. Doing qualitative field research in management accounting: positioning data to contribute to theory. *Account. Organ. Soc.* 31, 819–841. <https://doi.org/10.1016/j.aos.2006.03.007>.
- Ansari, S., Bell, J., Okano, H., 2006. Target costing: uncharted research territory. In: Chapman, C.S., Hopwood, A.G., Shields, M.D. (Eds.), *Handbooks of Management Accounting Research*. Oxford, United Kingdom, pp. 507–530. [https://doi.org/10.1016/S1751-3243\(06\)02002-5](https://doi.org/10.1016/S1751-3243(06)02002-5).
- Arnaboldi, M., Azzone, G., 2010. Constructing performance measurement in the public sector. *Crit. Perspect. Account.* 21, 266–282. <https://doi.org/10.1016/j.cpa.2010.01.016>.
- Avison, D., Malaurent, J., 2014. Is Theory King? Questioning the theory fetish in information systems. *J. Inf. Technol.* 29, 327–336. <https://doi.org/10.1057/jit.2014.8>.
- Ax, C., Greve, J., Nilsson, U., 2008. The impact of competition and uncertainty on the adoption of target costing. *Int. J. Prod. Econ.* 115, 92–103. <https://doi.org/10.1016/j.ijpe.2008.04.010>.
- Baard, V.C., 2010. A critical review of interventionist research. *Qual. Res. Account. Manag.* 7, 13–45. <https://doi.org/10.1108/11766091011034262>.

²⁰ Just as a hunch based on *ad hoc* observations from the mentioned other fields, we believe that similarly as in management accounting research, the TFD mode of conducting IVR is not yet popular in them.

²¹ Longitudinal ethnographic studies, which are often not designed in the IVR mode, constitute an exception in this comparison.

- Baard, V.C., Dumay, J., 2020a. *Interventionist Research in Accounting*. Routledge, New York. <https://doi.org/10.4324/9781351262644>. Routledge, 2020. | Series: Routledge studies in accounting.
- Baard, V.C., Dumay, J., 2020b. Interventionist research in accounting: reflections on the good, the bad and the ugly. *Account. Financ.* 60, 1979–2006. <https://doi.org/10.1111/acfi.12409>.
- Bartunek, J.M., 2007. Academic-practitioner collaboration need not require joint or relevant research: toward a relational scholarship of integration. *Acad. Manag. J.* 50, 1323–1333. <https://doi.org/10.5465/AMJ.2007.28165912>.
- Bartunek, J.M., Rynes, S.L., Daft, R.L., 2001. Across the great divide: knowledge creation and transfer between practitioners and academics. *Acad. Manag. J.* 44, 340–355. <https://doi.org/10.2307/3069460>.
- Cooper, R., Slagmulder, R., 1999. Develop profitable new products with target costing. *Sloan Manage. Rev.* 40, 23–33.
- Cullen, J., Tsamenyi, M., Bernon, M., Gorst, J., 2013. Reverse logistics in the UK retail sector: a case study of the role of management accounting in driving organisational change. *Manag. Account. Res.* 24, 212–227. <https://doi.org/10.1016/j.mar.2013.01.002>.
- Davila, A., Wouters, M., 2004. Designing cost-competitive technology products through cost management. *Account. Horizons* 18, 13–26. <https://doi.org/10.2308/acch.2004.18.1.13>.
- Dekker, H.C., Smidt, P., 2003. A survey of the adoption and use of target costing in Dutch firms. *Int. J. Prod. Econ.* 84, 293–305. [https://doi.org/10.1016/S0925-5273\(02\)00450-4](https://doi.org/10.1016/S0925-5273(02)00450-4).
- Denzin, N.K., 1989. *Interpretive Interactionism*. Sage, Newbury Park, CA.
- DiMaggio, P.J., 1995. Comments on “what theory is not”. *Adm. Sci. Q.* 40, 391. <https://doi.org/10.2307/2393790>.
- Dubois, A., Gadde, L.-E., 2002. Systematic combining: an abductive approach to case research. *J. Bus. Res.* 55, 553–560. [https://doi.org/10.1016/S0148-2963\(00\)00195-8](https://doi.org/10.1016/S0148-2963(00)00195-8).
- Dumay, J., Baard, V.C., 2017. An introduction to interventionist research in accounting. In: Hoque, Z., Parker, L.D., Covaleski, M.A., Haynes, K. (Eds.), *The Routledge Companion to Qualitative Accounting Research Methods*. Routledge, pp. 265–283.
- Geertz, C., 1973. *The Interpretation of Cultures: Selected Essays*. Basic Books, New York, NY.
- Glaser, B.G., 1992. *Basics of Grounded Theory Analysis*. Sociology Press, Mill Valley, CA.
- Glaser, B.G., Strauss, A.L., 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Aldine de Gruyter, Hawthorne, N.Y.
- Gopalakrishnan, M., Libby, T., Samuels, J.A., Swenson, D., 2015. The effect of cost goal specificity and new product development process on cost reduction performance. *Account. Organ. Soc.* 42, 1–11. <https://doi.org/10.1016/j.aos.2015.01.003>.
- Goretzki, L., Mack, S., Messner, M., Weber, J., 2016. Exploring the persuasiveness of accounting numbers in the framing of ‘performance’ – a micro-level analysis of performance review meetings. *Eur. Account. Rev.* 1–31. <https://doi.org/10.1080/09638180.2016.1262273>.
- Goretzki, L., Lukka, K., Messner, M., 2018. Controllers’ use of informational tactics. *Account. Bus. Res.* 48, 700–726. <https://doi.org/10.1080/00014788.2017.1407627>.
- Groen, B.A.C., van de Belt, M., Wilderom, C.P.M., 2012a. Enabling performance measurement in a small professional service firm. *Int. J. Product. Perform. Manag.* 61, 839–862. <https://doi.org/10.1108/17410401211277110>.
- Groen, B.A.C., Wouters, M.J.F., Wilderom, C.P.M., 2012b. Why do employees take more initiatives to improve their performance after co-developing performance measures? A field study. *Manag. Account. Res.* 23, 120–141. <https://doi.org/10.1016/j.mar.2012.01.001>.
- Hambrick, D.C., 2007. The field of management’s devotion to theory: too much of a good thing? *Acad. Manag. J.* 50, 1346–1352. <https://doi.org/10.5465/amj.2007.28166119>.
- Henri, J.-F., Wouters, M., 2020. Interdependence of management control practices for product innovation: the influence of environmental unpredictability. *Account. Organ. Soc.* 86, 101073. <https://doi.org/10.1016/j.aos.2019.101073>.
- Israelsen, P., Jørgensen, B., 2011. Decentralizing decision making in modularization strategies: overcoming barriers from dysfunctional accounting systems. *Int. J. Prod. Econ.* 131, 453–462. <https://doi.org/10.1016/j.ijpe.2010.12.020>.
- Jelinek, M., Romme, A.G.L., Boland, R.J., 2008. Introduction to the special issue: organization studies as a science for design: creating collaborative artifacts and research. *Organ. Stud.* 29, 317–329. <https://doi.org/10.1177/0170840607088016>.
- Jørgensen, B., Messner, M., 2009. Management control in new product development: the dynamics of managing flexibility and efficiency. *J. Manag. Account. Res.* 21, 99–124. <https://doi.org/10.2308/jmar.2009.21.1.99>.
- Jönsson, S., 1996. *Accounting for Improvement*. Guildford and King’s Lynn, Pergamon.
- Jönsson, S., 2010. Interventionism – an approach for the future? *Qual. Res. Account. Manag. J.* 124–134. <https://doi.org/10.1108/11766091011034307>.
- Jönsson, S., Lukka, K., 2006. There and back again: doing interventionist research in management accounting. In: Chapman, C.S., Hopwood, A.G., Shields, M.D. (Eds.), *Handbook of Management Accounting Research*. Elsevier, Oxford, United Kingdom, pp. 373–397. [https://doi.org/10.1016/S1751-3243\(06\)01015-7](https://doi.org/10.1016/S1751-3243(06)01015-7).
- Jordan, S., Messner, M., 2012. Enabling control and the problem of incomplete performance indicators. *Account. Organ. Soc.* 37, 544–564. <https://doi.org/10.1016/j.aos.2012.08.002>.
- Kadous, K., Koonce, L., Towry, K.L., Wright, A.M., 2005. Quantification and persuasion in managerial judgement. *Contemp. Account. Res.* 22, 643–691. <https://doi.org/10.1506/568U-W2FH-9YQM-QG30>.
- Kaplan, R.S., 1998. Innovation action research: creating new management theory and practice. *J. Manag. Account. Res.* 10, 89–118.
- Kaplan, R.S., 2006. The competitive advantage of management accounting. *J. Manag. Account. Res.* 18, 127–135. <https://doi.org/10.2308/jmar.2006.18.1.127>.
- Kasanen, E., Lukka, K., Siitonen, S., 1993. The constructive approach in management accounting research. *J. Manag. Account. Res.* 5, 241–264.
- Keating, P., 1995. A framework for classifying and evaluating the theoretical contributions of case research in management accounting. *J. Manag. Account. Res.* 7, 66–86.
- Korhonen, T., Laine, T., Lyly-Yrjänäinen, J., Suomala, P., 2016. Innovation for multiproject management: the case of component commonality. *Proj. Manag. J.* 47, 130–143. <https://doi.org/10.1002/pmj.21586>.
- Kuula, A., 1999. *Toimintatutkimus [Action research]*. Vastapaino, Tampere, Finland.
- Labro, E., 2004. The cost effects of component commonality: a literature review through a management-accounting lens. *Manuf. Serv. Oper. Manag.* 6, 358–367. <https://doi.org/10.1287/msom.1040.0047>.
- Labro, E., Tuomela, T.-S., 2003. On Bringing More Action Into Management Accounting Research: Process Considerations Based on Two Constructive Case Studies. <https://doi.org/10.1080/0963818032000083559>.
- Lewin, K., 1948. *Action research and minority problems. Resolving Social Conflicts; Selected Papers on Group Dynamics*. Harper & Row, Oxford, United Kingdom, pp. 201–206.
- Lukka, K., 2003. The constructive research approach. In: Ojala, L., Hilmola, O.-P. (Eds.), *Case Study Research in Logistics*. Turku School of Economics and Business Administration, Turku, Finland, pp. 83–101.
- Lukka, K., 2005. Approaches to case research in management accounting: the nature of empirical intervention and theory linkage. In: Jönsson, S., Mouritsen, J. (Eds.), *Accounting in Scandinavia – The Northern Lights*. Copenhagen Business School Press, Copenhagen, pp. 375–399.
- Lukka, K., Modell, S., 2010. Validation in interpretive management accounting research. *Account. Organ. Soc.* 35, 462–477. <https://doi.org/10.1016/j.aos.2009.10.004>.
- Lukka, K., Suomala, P., 2014. Relevant interventionist research: balancing three intellectual virtues. *Account. Bus. Res.* 44, 204–220. <https://doi.org/10.1080/00014788.2013.872554>.
- Lukka, K., Vinnari, E., 2014. Domain theory and method theory in management accounting research. *Account. Audit. Account. J.* 27, 1308–1338. <https://doi.org/10.1108/AAAJ-03-2013-1265>.
- Lukka, K., Vinnari, E., 2017. Combining actor-network theory with interventionist research: present state and future potential. *Account. Audit. Account. J.* 30, 720–753. <https://doi.org/10.1108/AAAJ-08-2015-2176>.
- Lyly-Yrjänäinen, J., Suomala, P., Laine, T., Mitchell, F., 2017. *Interventionist Management Accounting Research*. Routledge, New York, NY. <https://doi.org/10.4324/9781315316161>.
- Malmi, T., 2016. Managerialist studies in management accounting: 1990–2014. *Manag. Account. Res.* 31, 31–44. <https://doi.org/10.1016/j.mar.2016.02.002>.
- Malmi, T., Granlund, M., 2009a. In search of management accounting theory. *Eur. Account. Rev.* 18, 597–620. <https://doi.org/10.1080/09638180902863779>.
- Malmi, T., Granlund, M., 2009b. Agreeing on problems, where are the solutions? A reply to Quattrone. *Eur. Account. Rev.* 18, 631–639. <https://doi.org/10.1080/09638180902866830>.
- Malmi, T., Järvinen, P., Lillrank, P., 2004. A collaborative approach for managing project cost of poor quality. *Eur. Account. Rev.* 13, 293–317. <https://doi.org/10.1080/0963818042000204733>.
- Mattessich, R., 1995. Conditional-normative accounting methodology: incorporating value judgments and means-end relations of an applied science. *Account. Organ. Soc.* 20, 259–284. [https://doi.org/10.1016/0361-3682\(94\)00023-0](https://doi.org/10.1016/0361-3682(94)00023-0).
- McGahan, A., 2007. Academic research that matters to managers: on zebras, dogs, lemmings, hammers, and turnips. *Acad. Manag. J.* 50, 748–753. <https://doi.org/10.5465/AMJ.2007.26279166>.
- Modell, S., Vinnari, E., Lukka, K., 2017. On the virtues and vices of combining theories: the case of institutional and actor-network theories in accounting research. *Account. Organ. Soc.* 60, 62–78. <https://doi.org/10.1016/j.aos.2017.06.005>.
- Mouritsen, J., Hansen, A., Hansen, C.Ø., 2001. Inter-organizational controls and organizational competencies: episodes around target cost management/functional analysis and open book accounting. *Manag. Account. Res.* 12, 221–244. <https://doi.org/10.1006/mare.2001.0160>.
- Normann, R., 1975. *Skapande företagsledning [Creative leadership of the firm]*. Aldus, Lund, Sweden.
- Perlow, L.A., 1999. The time famine: toward a sociology of work time. *Adm. Sci. Q.* 44, 57. <https://doi.org/10.2307/2667031>.
- Persson, M., Åhlström, P., 2006. Managerial issues in modularising complex products. *Technovation* 26, 1201–1209. <https://doi.org/10.1016/j.technovation.2005.09.020>.
- Pike, K.L., 1954. Etic and emic standpoints for the description of behavior. *Language in Relation to a Unified Theory of the Structure of Human Behavior*, 2nd rev. ed. Mouton & Co., The Hague, pp. 37–72. <https://doi.org/10.1037/14786-002>.
- Quattrone, P., 2009. ‘We have never been Post-modern’: on the search of management accounting theory. *Eur. Account. Rev.* 18, 621–630. <https://doi.org/10.1080/09638180902863837>.
- Ramdas, K., 2003. Managing product variety: an integrative review and research directions. *Prod. Oper. Manag.* 12, 79–101. <https://doi.org/10.1111/j.1937-5956.2003.tb00199.x>.
- Ramdas, K., Fisher, M., Ulrich, K., 2003. Managing variety for assembled products: modeling component systems sharing. *Manuf. Serv. Oper. Manag.* 5, 142–156. <https://doi.org/10.1287/msom.5.2.142.16073>.
- Rautiainen, A., Sippola, K., Mättö, T., 2017. Perspectives on relevance: the relevance test in the constructive research approach. *Manag. Account. Res.* 34, 19–29. <https://doi.org/10.1016/j.mar.2016.07.001>.

- Roberts, H., Westin, O., Dumay, J.C., 2010. A critical reflective discourse of an interventionist research project. *Qual. Res. Account. Manag.* 7, 46–70. <https://doi.org/10.1108/11766091011034271>.
- Robinson, V.M., 1993. Current controversies in action research. *Public Adm. Q.* 17, 263–290.
- Romme, A.G.L., 2003. Making a difference: organization as design. *Organ. Sci.* 14, 558–573. <https://doi.org/10.1287/orsc.14.5.558.16769>.
- Romme, A.G.L., Enderburg, G., 2006. Construction principles and design rules in the case of circular design. *Organ. Sci.* 17, 287–297. <https://doi.org/10.1287/orsc.1050.0169>.
- Rowe, C., Shields, M.D., Birnberg, J.G., 2012. Hardening soft accounting information: games for planning organizational change. *Account. Organ. Soc.* 37, 260–279. <https://doi.org/10.1016/j.aos.2012.02.003>.
- Rynes, S.L., 2007. Let's create a tipping point: what academics and practitioners can do, alone and together. *Acad. Manag. J.* 50, 1046–1054. <https://doi.org/10.5465/AMJ.2007.27156169>.
- Schein, E., 1987. *The Clinical Perspective in Fieldwork*. Sage, Thousand Oaks, California.
- Silverman, D., 2019. *Interpreting Qualitative Data*, sixth. ed. SAGE Publications Ltd.
- Skærbæk, P., Melander, P., 2004. The politics of the changing forms of accounting. *Account. Audit. Account. J.* 17, 17–40. <https://doi.org/10.1108/09513570410525193>.
- Straub, D.W., 2009. Editor's comments: why top journals accept your paper. *MIS Q.* 33, iii. <https://doi.org/10.2307/20650302>.
- Strauss, A.L., 1987. *Qualitative Analysis for Social Scientists*. Cambridge University Press, Cambridge, U.K.
- Strauss, A.L., Corbin, J., 1990. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. SAGE, Thousand Oaks, CA.
- Sunding, L., Odenrick, P., 2010. A method for action research interventions to improve joint problem solving in operational teams in the Swedish construction industry. *Qual. Res. Account. Manag.* 7, 97–123. <https://doi.org/10.1108/11766091011034299>.
- Suomala, P., Lyly-Yrjänäinen, J., 2012. *Management Accounting Research in Practice*. Routledge, New York, NY. <https://doi.org/10.4324/9780203141205>.
- Suomala, P., Lahikainen, T., Lyly-Yrjänäinen, J., Paranko, J., 2010. Open book accounting in practice – exploring the faces of openness. *Qual. Res. Account. Manag.* 7, 71–96. <https://doi.org/10.1108/11766091011034280>.
- Suomala, P., Lyly-Yrjänäinen, J., Lukka, K., 2014. Battlefield around interventions: a reflective analysis of conducting interventionist research in management accounting. *Manag. Account. Res.* 25, 304–314. <https://doi.org/10.1016/j.mar.2014.05.001>.
- Sutton, R.L., Staw, B.M., 1995. What theory is not. *Adm. Sci. Q.* 40, 371. <https://doi.org/10.2307/2393788>.
- Thyssen, J., Israelsen, P., Jørgensen, B., 2006. Activity-based costing as a method for assessing the economics of modularization—a case study and beyond. *Int. J. Prod. Econ.* 103, 252–270. <https://doi.org/10.1016/j.ijpe.2005.07.004>.
- Tranfield, D., Starkey, K., 1998. The nature, social organization and promotion of management research: towards policy. *Br. J. Manag.* 9, 341–353. <https://doi.org/10.1111/1467-8551.00103>.
- van Aken, J., Chandrasekaran, A., Halman, J., 2016. Conducting and publishing design science research. *J. Oper. Manag.* <https://doi.org/10.1016/j.jom.2016.06.004>.
- Van De Ven, A.H., Johnson, P.E., 2006. Knowledge for theory and practice. *Acad. Manage. Rev.* 31, 802–821. <https://doi.org/10.5465/amr.2006.22527385>.
- Van Maanen, J., 2011. Ethnography as work: some rules of engagement. *J. Manag. Stud.* 48, 218–234. <https://doi.org/10.1111/j.1467-6486.2010.00980.x>.
- Weick, K.E., 1989. Theory construction as disciplined imagination. *Acad. Manage. Rev.* 14, 516–531. <https://doi.org/10.5465/amr.1989.4308376>.
- Weick, K.E., 1995. What theory is not, theorizing is. *Adm. Sci. Q.* 40, 385. <https://doi.org/10.2307/2393789>.
- Woods, M., Taylor, L., Fang, G.C.G., 2012. Electronics: a case study of economic value added in target costing. *Manag. Account. Res.* 23, 261–277. <https://doi.org/10.1016/j.mar.2012.09.002>.
- Wouters, M.J.F., Morales, S., 2014. The contemporary art of cost management methods during product development. In: Epstein, M.J., Lee, J.Y. (Eds.), *Advances in Management Accounting*. Emerald Group Publishing Limited, pp. 259–346. <https://doi.org/10.1108/S1474-787120140000024008>.
- Wouters, M., Roijmans, D., 2011. Using prototypes to induce experimentation and knowledge integration in the development of enabling accounting information. *Contemp. Account. Res.* 28, 708–736. <https://doi.org/10.1111/j.1911-3846.2010.01055.x>.
- Wouters, M., Wilderom, C., 2008. Developing performance-measurement systems as enabling formalization: a longitudinal field study of a logistics department. *Account. Organ. Soc.* 33, 488–516. <https://doi.org/10.1016/j.aos.2007.05.002>.
- Wouters, M., Anderson, J.C., Narus, J.A., Wynstra, F., 2009. Improving sourcing decisions in NPD projects: monetary quantification of points of difference. *J. Oper. Manag.* 27, 64–77. <https://doi.org/10.1016/j.jom.2008.07.001>.
- Wouters, M., Roorda, B., Gal, R., 2011a. Managing uncertainty during R&D projects: a case study. *Res. Manag.* 54, 37–46. <https://doi.org/10.5437/08953608X5402001>.
- Wouters, M., Workum, M., Hissel, P., 2011b. Assessing the product architecture decision about product features – a real options approach. *R&D Manag.* 41, 393–409. <https://doi.org/10.1111/j.1467-9310.2011.00652.x>.
- Wouters, M., Morales, S., Grollmuss, S., Scheer, M., 2016. Methods for cost management during product development: a review and comparison of different literatures. *Adv. Manag. Account.* 139–274. <https://doi.org/10.1108/S1474-787120150000026005>.