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Integrative Strategies in Mixed Methods Research

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Abstract

Despite the critical role of integration as a methodological concept in mixed methods studies, researchers lack a theory for integrating. In this article, we introduce the concept of *integrative strategy* by analyzing three mixed methods rehabilitation-related studies. These studies represented an analytical strategy based on a multiperspective stakeholder approach, a theory-bound analytical strategy, and a theory-oriented synthesizing strategy. We define integrative strategy as a process in which the system of relations within the study is explicated and justified in accordance with the research purpose and phenomenon. This article contributes to mixed methods research by providing a novel concept of integrative strategy. The concept encompasses both study-specific practices of integration and their justifications, thereby bringing methodological discussions and practices closer together.

Keywords

mixed methods research, integrative strategy, analytical integration, theoretical integration

An issue at the core of mixed methods research is how different approaches and data sets—usually perceived as qualitative and quantitative—are brought together in research settings. However, the terms to describe this are not straightforward and are often limited to covering the concrete combination of qualitative and quantitative data sets. When dealing with the relationships between different data types in mixed methods research, terms such as combining, meshing, blending, integrating, and merging are used (Bryman, 2008). These terms nevertheless seem to sometimes have slightly vague foundations. The diverse usage of these terms is noticeable in both methodological discussions on mixed methods research and in the method descriptions of empirical studies. Challenges also arise when translating the terms into other languages. Because the concepts are not established even in English, it is difficult to find descriptive equivalents in other languages. The micro nuances and differences between these terms and their specific meanings are easily lost in translation.

Integration is a central methodological concept in mixed methods research and has been widely discussed (e.g., Bazeley, 2012, 2018; Bazeley & Kemp, 2012; Creamer, 2018; Fetter, 2020, Chapter 10; Fetter et al., 2013; Fetter & Freshwater, 2015; Fetter & Molina-Azorin,

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2019; Moran-Ellis et al., 2006; Moseholm & Fettters, 2017). These discussions address several aspects of integration and contain implications for the concept itself. Especially integrating¹ qualitative and quantitative elements has been at the core of mixed methods research (Morgan, 2014). Fettters and Freshwater (2015) proposed a few years ago that the mixed methods research community should pay greater attention to the “integration challenge.” Authors referred to the “formula” of integration ($1 + 1 = 3$), which includes deliberation on how qualitative and quantitative components together could produce more than either individual component alone (Fettters & Freshwater, 2015). More specifically, integration has been discussed, for example, from the perspectives of data and analysis in relation to research design (e.g., Woolley, 2009), from a multidimensional perspective (e.g., Bazeley, 2018), from the dimensions of integration perspective (e.g., Fettters & Molina-Azorin, 2017), and from integration as a relationship perspective (e.g., Moran-Ellis et al., 2006). Moran-Ellis et al. (2006) have also presented concepts of theoretical and analytical integration.

Nonetheless, the prominent concept of integration can be perceived as undertheorized and understudied (Bazeley & Kemp, 2012). This may be related to the diverse usages and meanings of the word “integration” in mixed methods literature and empirical studies. For example, integration can be used as a synonym for, or instead of, other terms, such as mixing or combining. Fettters and Molina-Azorin (2017) have noticed that integration is at times understood too narrowly as related only to combining different data sets. This may lead to some of the meanings of integration being overlooked and to integration being primarily approached from the perspective of “technical” methods of analysis. However, one of the future challenges facing mixed methods research lies in the very broad meaning of integration—that is, in how researchers are able to integrate qualitative and quantitative thinking on philosophical and theoretical levels, in data collection and analysis, and in reporting and utilizing findings (Mertens, Bazeley, Bowleg, Fielding, Maxwell, Molina-Azorin, & Niglas, 2016).

The discussion on mixed method research has covered *integrative strategies of analysis* quite extensively (Bazeley, 2012). However, in this article, we join the methodological discussion on integration by introducing and developing the concept of *integrative strategy*. Our working definition is as follows: Integrative strategy constitutes the efforts that researchers make to carry out a mixed methods research process where they are aware of and explicate the choices concerning the relationship between foundations and praxis in a study. We test and develop this concept by analyzing three empirical mixed methods studies as cases (see Stake, 1995). These studies addressed the field of rehabilitation of the working-age population and concerned the services provided by the Social Insurance Institution of Finland. By retrospective, theoretical–empirical reflection, we examine and compare the case-specific research practices concerning integration and elaborate different integrative strategies these cases represent.

Our preliminary assumption is that the concept of integrative strategy enables us to deal with the mixed methods research process as an entity, taking into account both the foundations and justifications of integration and the specific research practices and processes related to it. We approach integration also as the relationship between methods, data sets, analytical findings, and perspectives (see Moran-Ellis et al., 2006)—and as the active building of this relationship. Since the term *integrative strategy* has not been used in this particular way in mixed method literature, we do not define it strictly prior to the analysis. However, we utilize the aforementioned perspectives on integration as an analytical frame in our analysis. In this study, our aim is to test, develop, and refine the concept of integrative strategy.

The methodological purpose of this article is to scrutinize what the concept of integrative strategy and identifying different types of integrative strategies can offer to discussions and practices concerning integration in mixed methods research. According to the Oxford Dictionary, the term *strategy* refers precisely to creating “a plan of action designed to achieve

a long-term or overall aim” (“Strategy,” n.d.). As such, strategy involves anticipatory actions and emphasizes the importance of forethought. The views in the mixed methods literature on how approaches “should” be combined and on what is actually going on in empirical studies is not always consistent (e.g., Bryman, 2008; Uprichard & Dawney, 2019). We approach integration especially at the level of research practices that have, however, methodological–philosophical foundations. According to Moran-Ellis et al. (2006), it is essential that in mixed methods research we pay specific attention to the practical processes of the research act—that is, to the way in which the data in their different forms are brought into the discussion with each other. Researchers must be able to justify why the different data and methods are used in the same study, how they are interlinked, and why in this particular way (Moran-Ellis et al., 2006). We propose that the concept of integrative strategy could capture both these practices and their methodological–philosophical justifications and, as such, bring the conceptual discussions about integration and the practical processes of “doing integration” closer together.

Conceptual Background: Perspectives on Integration

In this section, we explore, based on the existing literature, specific perspectives on integration as the conceptual background adopted in this study. These perspectives were selected on the basis that they offer a sufficiently flexible analytical frame for the empirical case analysis. As Ragin (1994) describes, a flexible analytical frame shows the researcher where to look and what kind of factors might be relevant to understand the complexity in cases. Flexible frames may be especially useful in studies that advance theory (Ragin, 1994). First, we discuss the idea of integration as permeating the whole research process. Second, we approach integration as a relationship between methods, data sets, findings, and perspectives. Third, we discuss the role of theory in integration and consider how strategy relates to integration.

Integration as a Holistic Concept

The essential issues related to mixed methods research concern what is being mixed, the phase of the research process at which this takes place, and its emphasis. Comprehensive mixed methods study design typologies have been presented in terms of the timing and the emphasis of the mixing (e.g., Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). Mixing may take place during the data collection, analysis, or interpretation phase, or during several of these phases. Different data sets may be mixed or interlinked either simultaneously or consecutively, so that they can be built on top of each other, or be immersed one into the other (Johnson & Onwuegbuzie, 2004). According to Fetters and Molina-Azorin (2017), many authors use the terms *mixing* and *integrating* interchangeably. Integration can, however, be defined on its own. Fetters and Molina-Azorin (2017) refer to integration as “the linking of qualitative and quantitative approaches and dimensions together to create a new whole or a more holistic understanding than achieved by either alone” (p. 293). The authors use the term *dimension* intentionally instead of, for instance, *phase* or *stage*. In doing this, they emphasize how integration is not only related to a specific phase of the research but also contains philosophical, theoretical, and research integrity dimensions that permeate the whole mixed methods research process. They claim that integration is often understood too narrowly as merely data merging or combining (Fetters & Molina-Azorin, 2017). According to Fetters and Molina-Azorin (2019), it is essential to pay attention to all phases of the research process in the conceptualization of integration. This means focusing not only on the outcomes of integration but also on the forethought during the design phase (see also Fetters & Molina-Azorin, 2017).

In addition to mixing, integration can be seen to differ from combining. Moran-Ellis et al. (2006) state that methods can be combined in different ways—for example, by conducting quantitative research after the qualitative part, or vice versa. In their view, in combining, the data sets are in different positions in relation to each other, and when needed, they can be used to answer different kinds of questions. For example, interviews can be used to design questionnaires, or the quantitative results of the questionnaire can be “enriched” with findings from the textual data. Building on Punch (2005, as cited in Moran-Ellis et al., 2006), Moran-Ellis et al. (2006) argue that integration requires for different methods and data types to be treated as equals and used to answer a common research question. Thus, they are perceived as interdependent but still maintain their pragmatic modalities (Moran-Ellis et al., 2006).

Integration as a Relationship

Moran-Ellis et al. (2006) broadly define integration in mixed methods research as the relationship between methods, data entities, analytical findings, and perspectives. They present an example of this relationship: In transport systems, the different forms of transport work in an integrated way. A passenger can buy one ticket for their whole journey and can easily change from train to bus, for example. Integration promotes smoothly reaching one’s destination. Even if the bus remains a bus throughout the journey, and the train remains a train, the mechanism between them connects them to each other—the integrated system is more than just the sum of its parts. This example helps us understand integration as a relationship in a research praxis. According to the authors, the objective of creating this network-like relationship is to “know more.” What is meant by this “knowing” depends in turn on the theoretical and epistemological bases of the research (Moran-Ellis et al., 2006). As the objective of the research, knowledge is in its nature different to the passenger’s objective—that is, a known station—which must be reached as quickly and efficiently as possible. Integration, as a relationship, also requires a description of its network that has enabled the production of specific knowledge. Reaching the destination of “knowledge” may involve following the “wrong” paths and threads or seeing disconnected paths. Some of these disconnections can be understood through, for example, abstract-level interpretation. Identifying and locating these unclear routes may thus be part of creating the relationship between objectives, analysis, results, and different conceptual perspectives.

Integration and Messy Social Objects

The idea of analyzing the data from a single unifying perspective is also sometimes associated with integration. This is, however, contradictory in studies based on the idea of the complexity and diverse interpretations concerning the social world. Uprichard and Dawney (2019), for example, have ascertained that when dealing with integration on the data level, we must consider that the social objects of research can be messy and that research in practice involves messy empirical “cuts.” Thus, we can make data-based observations that do not support the interpretation of “one great story.” We can obtain different results using different kinds of data, and this does not need to be interpreted as an error or coincidence. Thus, we can appreciate the specificity of examining the social world as well as the limits, differences, and empirical cuts related to the data and the analysis. At the same time, we can ponder the significance of these “cuts” for how the nature of the research objects is understood and, in some cases, reevaluated. In terms of integration, this raises the question of whether differences are permitted when handling the data and what meanings are given to differing observations. In addition to contrasting empirical findings, according to Sanscartier (2020), there can be a design-related “mess” in

mixed methods research. This mess is due to the context dependency of the mixed methods research process; research contexts and objects can present unforeseen challenges and diversities, which call for unplanned adaptation and fluidity of research designs. Sanscartier (2020) suggests that both empirical and design-related messes can be navigated with planned or evolutionary adaptation, openness to messiness, and a pragmatic and reflective orientation toward it.

Analytical and Theoretical Integration

Moran-Ellis et al. (2006) distinguish between different types of integration. According to them, integration can be the integration of methods, analytical integration, or theoretical integration. The integration of methods involves combining different methods and mixing and blending them if required. Researchers can either use the methods characteristic of certain data types or cross the borders between different data sets—for example, convert textual data into numerical form and analyze it using quantitative methods (Moran-Ellis et al., 2006). Moran-Ellis et al. (2006) state that in analytical integration, analyses can be performed by using separate methods. Although different types of data are analyzed, at least partly, using the methods specific to them, the intent is to use all the data sets and analyses to complete the same objective (Moran-Ellis et al., 2006).

As an example of analytical integration, Cronin et al. (2008) present a way of analyzing mixed methods data using the “following a thread” method. In the setting that they describe, the contribution of different data sets is perceived as equal, but the analyses are performed partly separately, using methods suitable for different data types. In the “following a thread” method, integrated analysis progresses through four steps: initial analysis, picking up a promising thread, juxtaposing results and data, and synthesizing findings (Cronin et al., 2008). In addition to, or instead of, following a particular “thread” (see also O’Cathain et al., 2010), we can speak of a spiraled analysis, which progresses toward a merged interpretation (Fetters & Molina-Azorin, 2017). Characteristic to theoretical integration in turn is, according to Moran-Ellis et al. (2006), that different types of data, the methods applied, and the analysis conducted are based on the theoretical framework. Different materials can be handled separately, but they are united by the same metatheoretical perspective. In theoretical integration, different data sets and analysis methods may remain separate from each other, but this is not essential; the conceptual framework is the core (Moran-Ellis et al., 2006).

Integration Meets Strategy

We consider it possible that combining the concept of integration with that of strategy could be beneficial for mixed methods research and methodology. As its definition suggests, strategy refers to creating a plan of action. As such, designing a strategy requires some kind of forethought. However, we propose that strategy also refers to the praxis of the research and the “doings” during the research process. These doings are sometimes challenging to foresee and declare beforehand. Alasutari et al. (2008) refer to Herbert Blumer’s understanding of methodology in the area of social research, which includes a broad range of strategies and procedures related to research actions. Blumer (1969, as cited in Alasutari et al., 2008) proposes that the purpose of these procedures and strategies is to develop “a picture of an empirical world,” form questions about that world, mold them into problems that can be examined, and find the most appropriate methods to work with these problems. In this way, differently defined problems related to the empirical world need to be dealt with using different strategies.

Data

In this article, we analyze three mixed methods studies as cases (see Stake, 1995). The purpose of the analysis is to examine and compare the study-specific research practices concerning integration and to identify integrative strategies in each case. In addition, the purpose is to test, develop, and refine the concept of integrative strategy. All of the three studied cases addressed the field of rehabilitation of the working-age population and concerned the services provided by the Social Insurance Institution of Finland. The Social Insurance Institution of Finland arranges various vocational rehabilitation services, which aim to help people find employment, stay in employment, and return to work regardless of illness or impairment. Vocational rehabilitation provided by the Social Insurance Institution of Finland is regulated by legislation, and the rehabilitation services are guided by service descriptions, which define the quality of rehabilitation.

The purpose of using the mixed methods approach in all of the studied cases was to gain an in-depth understanding of the complex and multifaceted nature of the rehabilitation interventions. The three cases were selected on the basis that they all shared a common research context and their research questions principally focused on evaluation and implementation. Despite the similarities, however, there were differences in the study design and methodological issues. The common context enabled cross-case comparison, and the differences made it possible to explore the variety of integrative strategies. Table 1 presents the research purposes, data sets, and analysis methods of each study.

Case 1 concerned a new form of work-related vocational rehabilitation. The research evaluated the implementation of individual, flexible rehabilitation intervention (Seppänen-Järvelä et al., 2015). The goal of the early-onset vocational rehabilitation intervention was to promote job retention and prevent work disability. The intervention was targeted at people between the ages of 16 to 67 years who experienced the need for support to continue in working life. It aimed to meet the needs of both employees and their workplace through close collaboration among all the relevant stakeholders, such as supervisors, occupational health service providers, and rehabilitation service providers. The rehabilitation intervention consisted of three to eight rehabilitation consultations and a total of 7 to 21 full days of rehabilitation where work and health issues were examined and processed. The intervention was conducted in a work-related vocational rehabilitation program (2012-2014).

Case 2 evaluated the implementation of a new vocational rehabilitation assessment (Åkerblad et al., 2018). The vocational rehabilitation assessment is used in situations where one's ability to work or study has decreased because of an illness or impairment. In the intervention, a multidisciplinary team helps participants to identify and evaluate factors that affect their ability to work or study and to draw up a vocational rehabilitation plan. The rehabilitation intervention includes 12 days of active rehabilitation and 1 to 3 follow-up days. In this study, the intervention process was evaluated particularly from the perspectives of referral to the service, its correct timing, and functionality.

Case 3 examined the implementation of the legislative reform from 2014 (Haapakoski et al., 2018). The reform established new criteria for granting access to rehabilitation. The new criteria required impaired working ability to be viewed more broadly than merely in terms of the threat of incapacity for work, illness, or disability. Evaluation of the overall situation of the service applicants was at the core of the reform. The aim of the study was to determine how the clients' impaired ability to work or study and their overall situation were assessed after the legislative reform. In addition, the elements of discretion within relevant policies were discussed.

Table 1. Data Sets, Purposes, and Analyses in the Analyzed Studies.

Case	Purpose of the research	Data sets	Methods of analysis
Case 1: Work-related vocational rehabilitation	To evaluate the implementation and effectiveness of the rehabilitation model and its effects and benefits from the perspective of the service participants, workplace, occupational health services, and rehabilitation service provider	Questionnaire data collated before and after intervention: Service participants ($n = 450$) Supervisors ($n = 337$) Personnel ($n = 2,211$) Case data: Occupational health service providers ($n = 235$) Rehabilitation service providers ($n = 20$) Individual/group interviews: Human resource specialists ($n = 10$) Occupational health service providers ($n = 18$) Rehabilitation service providers ($n = 20$) Questionnaire data: Service participants ($n = 352$) Case data: Individual interviews: Service participants ($n = 8$) Personal key workers ($n = 5$) Referring workers ($n = 4$) Documents: Service participants ($n = 8$)	Comparative and descriptive statistical analysis and qualitative content analysis Thematic analysis of qualitative data and case-by-case comparative analysis, statistical analyses (comparative and latent profile analyses)
Case 2: Vocational rehabilitation assessment	To evaluate vocational rehabilitation assessment from the perspective of referral to service, timeliness, and effectiveness	Questionnaire data: Vocational rehabilitation applicants before and after the legislative reform (2013 $n = 432$, 2015 $n = 542$) Interviews: Decision makers for vocational rehabilitation ($n = 10$) Specialist doctors involved ($n = 9$)	Qualitative classification and thematic analyses, statistical analyses (comparative and latent profile analyses)
Case 3: Legislative reform	To produce an overall picture of the implementation of the legislative reform To examine how the clients' reduced ability to work or study and their overall situation were assessed within the framework of the new legislation		

Analysis

We, the authors of this article, worked as researchers in the aforementioned studies. We had an intrinsic interest in the cases (see Stake, 1995), and our aim was to thoroughly understand them. Our approach was case oriented (see Ragin, 1997): Our aim in this study was to accumulate knowledge and to refine and develop concepts (integrative strategy) through comparative theoretical–empirical reflection on the cases.

The analysis was retrospective in nature. In the studied cases, the concept of integrative strategy was not defined beforehand. In this article, we take a closer analytical look at the cases afterward to examine and compare the study-specific research practices concerning integration and, on that basis, to identify the integrative strategy these practices represented in each case. In addition, we use our observations to develop and refine the concept of integrative strategy. Our analysis was guided by specific perspectives on integration, which allowed us to assume what the novel concept of integrative strategy could entail. These perspectives included the idea of integration permeating the entire research process; integration as the relationship between methods, data sets, findings, and perspectives; and the role of theory in integration. Using these perspectives on integration, we focused on the following questions in the case analysis: What was the mixed methods rationale? How was the value of different data sets and approaches seen in relation to each other and to the purpose of the study? How and when were the data sets, methods, findings, and perspectives actually placed into dialogue? To what extent were the theoretical concepts seen as being crucial for either the whole study setting or the analysis and interpretation?

The analysis progressed by analyzing our experiences through joint discussion and collective writing. The analysis was a stepwise process, combining within-case and cross-case analyses. First, we examined each case separately by focusing especially on the above-mentioned questions (Step 1, within-case analysis). After this, we searched the cases for common as well as differentiating elements. We collectively examined the practices of relationship building in the cases and then comparatively analyzed what kind of integrative strategy these practices represented in each case. In addition, through comparative theoretical–empirical reflection of the cases, we explored and refined the novel concept of integrative strategy (Step 2, cross-case analysis).

Step 1. Within-Case Analysis: Exploring the Practices of Integration as Relationship Building

Research Case 1: Work-Related Vocational Rehabilitation. The purpose of using the mixed methods approach was both to strengthen the reliability of the study and to obtain the most extensive understanding of the studied phenomenon (see Greene et al., 1989). A significant motive for using the different types of data and for integrating them was to understand the multiagency aspect of the rehabilitation (e.g., Magasi et al., 2009) and the nature of the research phenomenon as a complex social intervention (MacEachen, 2013). These premises guided the study design: It was relevant to collect data from different stakeholder groups. Characteristically, program evaluations involve an array of stakeholders, and their multiple perspectives are important for understanding the content and meaning of programs (see Crump & Logan, 2008; Wholey et al., 2010). The use of multiperspective data is considered important also in mixed methods study settings, especially when the aim is to understand the views of different stakeholders and their interrelations and dynamics (e.g., Crump & Logan, 2008; Kendall et al., 2009; Kendall et al., 2018). It is also justified when the research phenomenon is complex and involves various

interests or when the relationship of the actors is not symmetrical. Data collected from different stakeholder groups for the same research questions reveal diverse experiences of the same issue and produce different interpretations of reality (see Hammersley, 2008).

A convergent research design was used; data sets were collected and analyzed during a similar time frame and analyzed separately before merging (see Creswell & Plano Clark, 2018; Fetters et al., 2013). The analysis began with the results of the questionnaire data, and the mixed methods approach was basically constructed on the basis of the survey data. According to the typology of analytical approaches proposed by Moseholm and Fetters (2017), the methodological frame of the study was *explanatory unidirectional*; the approach was quantitatively framed and complemented with qualitative findings. Different respondent groups' questionnaires were combined, and the results were reported per each research question. This outline also included the open-ended responses of the questionnaire and the findings based on the qualitative content analysis of the interview data. The findings from the multiperspective data were interwoven under the study's evaluation target themes, such as "necessity and individuality of rehabilitation" and "benefit and effect." The fundamental idea of the multiperspective stakeholder approach guided the practices of integration. The main research questions asked how the intervention was implemented and whether the intervention contributed to the intended outcomes. Randomized controlled trials have traditionally evaluated the effectiveness of vocational rehabilitation interventions by decreased sickness absence days or work disability. However, the multiperspective data analysis used in this study revealed the crucial role of the supervisor and multiactor collaboration in terms of implementing successful rehabilitation and promoting job retention.

However, the multiperspective aspect created its own challenge for integrating the data and analyses: It was not only about integrating qualitative and quantitative approaches but also about integrating different stakeholder perspectives and possibly differing interpretations. The analysis and interpretation became deeper primarily through multiperspective thinking and not, for example, through the comprehensive theoretical framework. The data collected from the different actors "fed" each other and opened up interpretative views that would not otherwise have emerged. As the analysis progressed, the multiperspective data helped reveal how the facilitating and inhibiting factors of the rehabilitation were interconnected through the actions of the different stakeholders.

Research Case 2: Vocational Rehabilitation Assessment. The purpose of the mixed methods approach was to create as multileveled a picture of the perceived functionality of the service as possible. To achieve this, researchers collected both case-based interview data and questionnaire data, enabling to respond to research questions of slightly different nature. The quantitative data were primarily used for descriptive evaluation: Who were the rehabilitation assessment participants, how had they been referred to the service, and how did they evaluate it? In turn, the qualitative data were used to trace the individual processes and the explanatory factors for the differences in the service experiences: Why did the service seem to work for some people but not for others (descriptive/process focus of evaluation, see Patton, 1997)?

A convergent research design was used (see Creswell & Plano Clark, 2018; Fetters et al., 2013). The researchers mainly analyzed the data separately and used the methods suitable for each particular data type. However, the data sets were placed in interaction during the analysis phase. Certain interesting, research task-related findings based on the qualitative data offered inputs for the further analysis of the quantitative data, and vice versa. Thus, the frame of the analysis can be perceived as a *simultaneous bidirectional* (see Moseholm & Fetters, 2017). For example, the findings from the questionnaire indicated that the timing of the vocational rehabilitation assessment was not always perceived as correct. At the same time, the findings implied

that the survey participants were not necessarily able to answer the question on the correct timing of the service, or they understood the question differently. Based on these observations, the qualitative data were used to clarify the dimensions related to the correct timing of the service and how the experienced timeliness met the system-based timeliness.

In terms of the holistic research task, thematic interweaving of the findings based on the different data sets was essential. As the analysis process progressed, the understanding that the vocational rehabilitation assessment was institutionally structured activity strengthened. The service participants' experiences and evaluations could not be handled as separate from the institutional context. The thread that eventually guided the analysis and synthesis was the relationship and tensions between the institutional context of the rehabilitation service and the "lived reality" represented in various ways in the data. The data-based findings were first projected onto the practical context knowledge, especially the service description. The Social Insurance Institution of Finland steers the implementation of the vocational rehabilitation assessment with a service description, the aim of which is to guarantee good quality, correctly timed rehabilitation and to ensure service participants' rights. The service description is also connected to wider ideals and concepts concerning rehabilitation (e.g., good rehabilitation practice and person-centered rehabilitation model). Therefore, the researchers also included the concept of person-centeredness in the thematization phase, during which the borders of different data sets were crossed. All in all, both the practical context knowledge and the theoretical concept of person-centeredness worked as a unifying element between the qualitative and quantitative data sets. It is noteworthy that these elements were not part of the initial study design but that their relevance and usefulness emerged as the analysis progressed.

Research Case 3: Legislative Reform. In the third case (legislative reform), researchers similarly tried to achieve a broad picture of the legislative reform using the mixed methods setting. Of the multiple research questions, the main one concerned the application of renewed access criteria in decision-making practices. Answering the research questions required a unifying research task—one which also took into account the context related to the legislative reform and the conceptual understandings of the implementation of the reform as an entity. The qualitative and quantitative data sets included the questionnaire for the applicants and interviews with the decision makers and specialist doctors. The research design was convergent (see Creswell & Plano Clark, 2018; Fetters et al., 2013). Data sets were collected concurrently, and their value was considered equal. The analyses were performed separately, but during the same time period. Analyses could be carried forward and refocused by using preliminary findings from either the quantitative or the qualitative data set. In practice, if a specific, very interesting result emerged from one of the data sets, the researchers pondered whether it could be possible to discover something connected to the same theme in the other data set. Thus, applying the typologization by Moseholm and Fetters (2017), the analytic framework was *simultaneous bidirectional*. The interactive, dynamic relationship between the research questions and methods was characteristic of this study. Using an analysis that integrated the different data sets helped revise the unifying research task. Conducting this research required conceptualizations and understandings of both the mixed methods data and the context of the legislative reform during the research process.

The connection between the data and the context was especially important in the analysis. The relevant contexts were the environments related to decision making and the history of the legislative reforms. Because the data were not nested (e.g., interviewees were not selected from among the respondents), and the task of the research was related to a political reform, the researchers regarded the role of contextual knowledge in the integration as essential. The aim of the study was to produce an overall picture of the implementation of the legislative reform and the new assessment practice. Although the results based on the data gave hints about the

reform, the overall picture was constructed in relation to the contextual knowledge. This information (e.g., legislative drafting of documents and public information on decision-making practices) also contained traces related to legislative drafting.

In addition, accomplishing the research task required reflection on the results in relation to the theoretical interpretative framework as the process progressed. During the research process, it became clear that the case required that we consider discretion as an analytical tool. This tool helped us understand and conceptualize the implementation of the renewed access criteria for the rehabilitation services and the actual practices. These practices included assessments of the service applicants' situations in grassroot-level decision making. Renewed legislation, institutional guidelines, and descriptions by decision makers and involved specialist doctors were sometimes in dissonance. Considering the combination of results (e.g., perceived dissonance), the implementation of the new policy was associated with both the organizational/institutional dimensions of discretion and the grassroots/professional dimensions of discretion. Thus, on the level of practices, renewed policy was seen as formed through these discretion dimensions. The contextual knowledge concerning the legislative reform and the theoretical conceptualization (discretion-related interpretation) played a different role to that of the empirical data in producing the overall picture. The way in which the knowledge of the context supported the interpretation of the empirical results and in which the results were reflected on in relation to "discretion" was central. Producing an overall picture thus required developing a synthesis of (1) data-based findings, (2) contextual knowledge, and (3) theoretical conceptualization.

Step 2. Cross-Case Analysis: Identifying Integrative Strategies

The mixed methods research process and integration practices in each case are summarized in Figure 1.

By comparing the study-specific practices, it was possible to identify the particular integrative strategy each case represented. We identified types of integrative strategies by comparing cases on the basis of the purpose and the object of the study; the mixed methods rationale; the relationship between different methods, data sets, and findings; and the role of theory. Table 2 shows the basis of the research, integrative practices, and integrative strategies that can be referred to in each case.

In all the cases, the researchers' understanding of both the aims of the study and the research phenomenon affected the justifications of the mixed methods approach and the practices of integration. The aim in all the cases was to produce a holistic, novel understanding that takes into account the context and the complexity of the research phenomenon. In practice, taking the diversity and context of the phenomenon into account required a multiperspective approach (Case 1), contextualization of the findings based on the data (Case 2), or both contextualization and conceptualization (Case 3).

The study purpose partly determined the way in which the different types of data were handled and brought together in the studied cases and, thus, what kind of integrative strategy was present. Cases 1 and 2 (work-related vocational rehabilitation and rehabilitation assessment) represented practical evaluation research. In both studies, the purpose was to produce knowledge that can be utilized for developing the rehabilitation models and rehabilitation services. In Case 1, the data were interpreted primarily through multiperspective thinking, and the integrative strategy can be described as an *analytical integration strategy based on the multiperspective standpoint*. Both the study design and the practices of integrating the data sets were determined by the understanding of the multifaceted nature of the research phenomenon. In Case 2, the institutional and normative frame of the rehabilitation service appeared essential and was used in interpreting and understanding the data-based findings. This flexible and

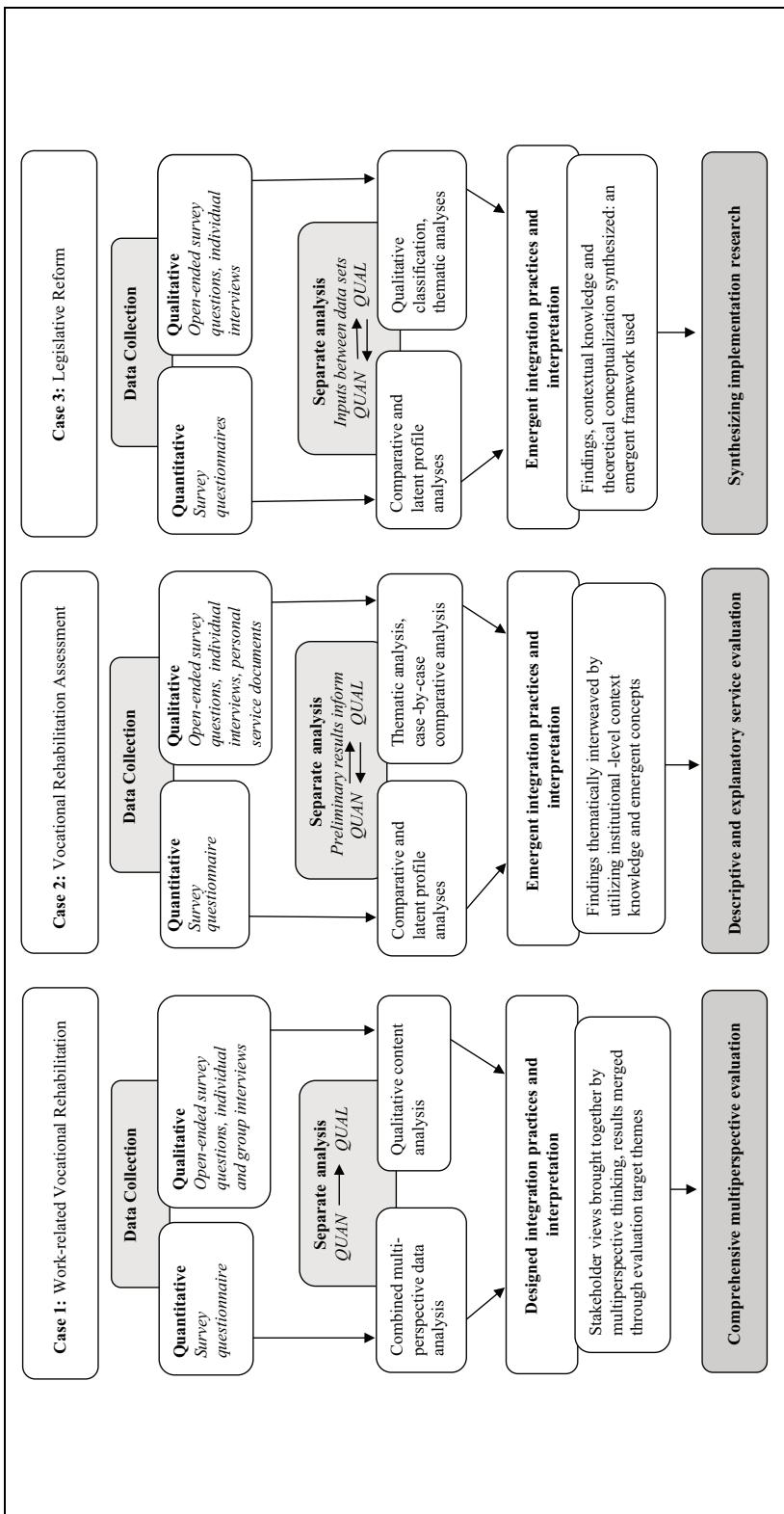


Figure 1. Research process and integration practices in the cases.

Table 2. Integrative Strategies in the Cases.

Case	Basis of the research	Integrative practices during the research: Building the relationship between data sets and approaches	Integrative strategy and the purpose for the strategy
Case 1: Work-related vocational rehabilitation	Practice-oriented evaluation research, multagency of rehabilitation (stakeholder perspective)	Study included both qualitative and quantitative data sets and data collected from different stakeholders. Different data sets and stakeholder views were brought together through multiperspective data analysis. Findings were interwoven under the study's evaluation target themes (e.g., necessity and individuality of rehabilitation).	Analytical strategy based on multiperspective stakeholder approach. The strategy was used to produce a comprehensive evaluation of a complex intervention.
Case 2: Vocational rehabilitation assessment	Practice-oriented evaluation study, institutionally structured rehabilitation service	Qualitative and quantitative data sets were analyzed separately using data-specific methods. Findings were thematically interwoven using institutional-level context knowledge and theoretical concepts (e.g., person-centered theory) emerging as relevant during the data analysis.	Theory-bound analytical strategy. The strategy was used to produce a multileveled, both a participant-driven and a context-aware service evaluation.
Case 3: Legislative reform	Implementation study, theoretical conceptualizations of implementation and the backgrounds of the reform	Analysis of qualitative and quantitative data sets progressed in parallel from initial analyses to further analyses using inputs between different data sets. Interpretation required combining and synthesizing the empirical findings and the contexts-specific knowledge (e.g., legislative drafting documents and reform ideas), and theoretical conceptualizations (taking into account the concept of discretion during the research).	Theory-oriented synthesizing strategy. The strategy was used to produce a synthesized conceptualization of the complex phenomenon of legislative reform.

practical frame emerged during the interpretation phase, and thus, the analysis was more theory bound than theory oriented. The integrative strategy can be illustrated as *theory-bound analytical strategy*.

In Case 3, the focus was on the conceptualization of the findings. From the perspective of the research task, the essential themes, such as “implementation and frame of the legislative reform” and “assessment,” were understood as phenomena that could not be explained by leaning on only the data and empirical findings. Thus, clarifying concepts such as “discretion” were needed. In this case, completion of the research task also required the conceptual rethinking of the specific research questions—the relationship between the methods and the research questions was reciprocal and dynamic. Overall, the integrative strategy was depicted as *theory-oriented synthesizing strategy*. Our cross-case analysis indicated that theory-bound and theory-oriented strategies can be roughly separated from each other by taking into consideration the role of conceptualizations and the use of concepts in the study. In the theory-oriented strategy, the emphasis was on producing a joint conceptualization. To accomplish the research task, there was a need to build a study-specific theoretical framework. In the theory-bound strategy, practical context knowledge and emergent concepts were used as methodological tools when thematizing data-based findings.

Our preliminary assumption in this study was that the concept of integrative strategy enables us to take into account both the foundations and justifications of integration and the research practices and processes related to it. In our analysis, we explored practical decisions concerning the relationship building between qualitative and quantitative data sets, methods, data-based findings, and perspectives. In all the analyzed cases, the integration involved reflections on the practical aims of the research, understandings concerning the research phenomenon, and theoretical insights. In this way, integrative strategy was intertwined with the foundations and purpose of the research. Based on our analysis, implementing an integrative strategy is simultaneously a methodological and practical process as well as a creative and transformative one, which encompasses the whole research process.

Based on our observations, integrative strategy is a process that comprises all the efforts that researchers make to carry out a mixed methods research where they are aware of and explicate the choices concerning the relationship between methodological, philosophical, and conceptual groundings (foundations and justifications) and actual doing (praxis) in a study. Thus, we define integrative strategy as a process in which the system of relations within the study is explicated and justified in accordance with the research purpose and phenomenon. This implies that researchers and research teams first need to break up the ground (like gardeners or construction workers do) in order to explore and thoroughly discuss their philosophical-methodological positions, the fundamental purpose of the study, and the nature of the research phenomenon. The term *strategy* refers to preplanning and forethought concerning the study-specific justifications and practices of integration. From this viewpoint, in all analyzed cases, more detailed planning and forethought regarding integration would have been useful. However, we perceive integrative strategy as flexible and open to change according to the purpose of “knowing more” characteristic of mixed methods research.

Discussion

In this article, we examined the study-specific practices and integrative strategies in three rehabilitation-related research cases. According to our analysis, cases represented the following integrative strategies: analytical strategy based on multiperspective stakeholder approach, theory-bound analytical strategy, and theory-oriented synthesizing strategy. Our case analysis implies that integration involves the entire research process from study design to interpretations

and contains relations that become more accurate in research praxis. Thus, according to our analysis, conceptualizations of integration that address the dimensions of integration rather than the stages of it (see, e.g., Fetters & Molina-Azorin, 2017) seem to capture crucial features of the methodological character of integration. If the community of mixed methods research were to apply the term *integrative strategy* in methodological discussions, the different meanings of the concept of integration could become more accurate. Researchers and writers could use the term *integrative strategy* instead of *integration* especially when the intention is to refer to integration involving the entire research process. This application could facilitate methodological discussions that are conceptually more exact and help researchers design and explain the integration conducted in mixed methods studies.

Designing a study-specific integrative strategy seems to require reflection on how the nature of the research problem and phenomenon is understood and to what degree and in which phases of the process theoretical conceptualizations are needed. In addition, it seems to require reflection on how reciprocal the relationship between methods and research questions is perceived to be. Mertens, Bazeley, Bowleg, Fielding, Maxwell, Mason, et al. (2016) state that there have been varying understandings concerning the relationship between research questions and methods. From one perspective, they can be seen as interacting and integrated with the other interrelated components, such as methods (see Maxwell & Loomis, 2003). Thus, research questions shape and are shaped by methods; the relationship is reciprocal (Mertens, Bazeley, Bowleg, Fielding, Maxwell, Mason, et al., 2016). According to our analysis, this potential reciprocity concerns the initial rationale for a mixed methods approach, but in addition, it also relates to the degree of flexibility of integrative strategies and practices within this approach. When integrative strategy is perceived to be flexible in nature, research questions can be molded and new questions raised according to the emerging data- and context-related observations.

For this reason, we consider the extent to which integrative strategies can be planned in a study design phase and the extent to which decisions evolve during the research process and, for example, after being immersed in the data and the context of the research. Mixed methods research that strives for holistic interpretation requires researchers to be open-minded and continuously reflect on the relationships between different elements of the study. Our case-based findings are in line with the notion that mixed methods research always contains certain unpredictability due to the extent and multifaceted nature and even “messiness” of the mixed data (see Bryman, 2006, 2007; Sanscartier, 2020). Thus, a preplanned integrative strategy may (and can) also change and become more focused as a study progresses. Understanding of the object of the research and contextual factors may also change during the research process, which creates a “design-related mess” in mixed methods settings (see Sanscartier, 2020). The empirical world, problems related to it, and the compatibility of mixed methods research practices can thus be clarified during the research process. In addition, the different uncertainty factors that inevitably arise from people’s actions mean that a practically oriented mixed methods research process must retain a certain flexibility and openness (Feilzer, 2010; Onwuegbuzie & Leech, 2005; see also Johnson & Onwuegbuzie, 2004).

Findings from different data sets may sometimes contradict each other (Uprichard & Dawney, 2019). In our research cases, these contradictions were triggered especially by the multiperspective design. Multiperspective data created peculiar challenges in conducting integration by producing varying interpretations of reality by different stakeholder groups. In addition, some tension was observed between the data and contextual factors, which required theoretical clarification (theory-oriented/theory-bound integrative strategy). This implies that it is important to understand integration as not only concerning, for example, the use of qualitative and quantitative data but also concerning the presence of varying perspectives and theoretical lenses in the same study. When integration is seen as building a relationship between these

study-specific features—rather than an effort to unify them—contradictions and fractures become a source of valuable information to be explored further. Yet our analysis shows that integrative strategy should not be used to generate forced integration and, by extension, not to oversimplify the complexity of the empirical world and mask the diversity of opinions, data sets, or the social-world phenomenon itself.

Limitations and Future Studies

The present study was based on the retrospective, theoretical–empirical reflection of three cases in a specific research context (vocational rehabilitation in Finland). It was conducted along with the ideas of intrinsic case study, the strength of which is in particularization rather than in generalization (Stake, 1995). If this study is evaluated according to the principles of sampling research or a variable-oriented cross-case comparison (see Ragin, 1997), its generalizability could be considered a limitation. Our aim, however, was to produce conceptual generalization. In addition, the limitation of the study was the very nature of the analysis process: The quality of the analysis was profoundly dependent on our capability to understand the studied cases and to derive new knowledge through interpretation and reasoning. Because the analysis was mainly retrospective, it was based on recollection, which might create a source of bias. Therefore, the discussions concerning integrative strategies could benefit from the systematic collection of related material prior and during the research process. We argue that a further challenge for methodological development is to elaborate the various uses of integrative strategies in empirical research and, on that basis, develop the concept of integrative strategy further.

Conclusions and Contribution to the Field of Mixed Methods

The methodological purpose of this article was to test and develop the concept of integrative strategy in order to bring the conceptual discussions about integration and the study-specific practices closer together. Our analysis shows that in mixed methods research it could be useful to speak of integrative strategies that can help researchers make coherent and proactive decisions concerning integration. Designing a study-specific integrative strategy could help researchers identify and explicate central relationships in a study: how different kinds of data, methods, data-based findings, and theoretical perspectives will be brought together and for what purpose. Thus, researchers could better avoid the dissonance between what “was supposed to happen” and “what actually happened.” As Fetters and Molina-Azorin (2019) suggest, analysis of mixed data would benefit from forethought and articulation of the researchers’ intent already during the study design phase. In addition, it is relevant to pay attention to the foundations and rationales of the integrative strategy. As Moran-Ellis et al. (2006) state, the integrated relationship does not in itself imply anything about what can be claimed, but claims are made on the basis of the researchers’ theoretical perspectives and positions.

However, integrative strategy does not need to be completely fixed in a study design phase but rather kept flexible in order to embrace the richness of the data and empirical and contextual diversity characteristic to mixed methods settings (see, e.g., Sanscartier, 2020). Typologies and definitions related to mixed methods research and integration—such as integrative strategy—can help researchers structure their understandings and make deliberate decisions. On the other hand, when applied analytically and critically, they can also help acknowledge and even embrace the “messiness” of doing mixed methods research. Therefore, flexible definitions can open up a space for mixed methods researchers to practice “informed creativity” (see also Mertens, Bazeley, Bowleg, Fielding, Maxwell, Mason, et al., 2016).

This article contributes to conceptualizations of integration in mixed methods research by developing the novel concept of integrative strategy. We suggest that by applying this concept to methodological discussions the meaning of integration would be clarified, especially when referring to integration concerning the entire research process. When carrying out fully integrated mixed methods research, integration is executed at every phase of the study as an iterative exchange between quantitative and qualitative strands (Creamer, 2018). However, designing and carrying out an integrative strategy is intrinsically a proactive process that involves more than bringing together qualitative and quantitative components in different phases of the study. It challenges mixed methods researchers to acknowledge integration as active and reflective relationship building, which encompasses the whole research process and involves a variety of relations and interrelations. We suggest that under particular circumstances mixed methods researchers could, instead of integration, use the more specific and proactive term *integrative strategy*.

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Note

1. We notify that “integrating” is a verb that has slightly different connotations than the noun “integration” or the proposed concept of “integrative strategy” in this article.

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