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LIFBI STUDY MANAGER:
CURRENT STATUS AND
FUTURE VISION OF
DIGITIZED STUDY
MANAGEMENT IN
THE NEPS

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LifBi *Study Manager*: Current Status and Future Vision of Digitized Study Management in the NEPS

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LifBi *Study Manager*: Current Status and Future Vision of Digitized Study Management in the NEPS

Abstract

Many studies with an often complex design are administered simultaneously in the National Educational Panel Study (NEPS) at the Leibniz Institute for Educational Trajectories (LifBi). Furthermore, the division of labor between different work units is high. Thus, it is challenging to keep an overview of processes, responsibilities and routines. From a management perspective, organizational integration is needed. One way to support this integration is through the implementation of digital tools. The LifBi *Study Manager* was created for this purpose and to improve the survey management in the areas Study Overview, Scheduling and Workflows. The aim of the LifBi *Study Manager* is to introduce a so-called learning system, that is a system that collects data that can be used for future surveys. The current status and future developments of the LifBi *Study Manager* are discussed in this paper.

Keywords

NEPS, digitalization, survey management, learning system, digital tools, panel studies

1. Introduction

At the Leibniz Institute for Educational Trajectories (LifBi), many (panel) studies in several projects, for example the National Educational Panel Study (NEPS), are administered simultaneously. The division of labor is high in these complex studies, that is, there are many different multilocal work units with specialized competencies. Given this complex structure, it is challenging to maintain an overview of tasks, processes, responsibilities and routines. From a management perspective, organizational integration by a central work unit is required (Schreyögg & Koch, 2007). Furthermore, digital technology can support the central and coordinating role of this work unit through digital tools that provide the needed overview for all stakeholders (Nassehi, 2019). The LifBi *Study Manager* is such a digital tool.

The aim of this digital tool is to support tasks and processes that can be categorized into three areas: Study Overview, Scheduling, and Workflows. The Study Overview has the function of continuously keeping all stakeholders informed about the current parameters of the study design. It also documents and archives the final status of studies. Schedules consist of all relevant timelines and milestones of a study. Finally, Workflows have a structuring function to define working steps in a certain order and determine which actors are involved. These tasks and processes are vital for the success of studies conducted at the LifBi and the collaboration between different work units. The introduction of a so-called learning system would assist in managing this situation (Timinger & Seel, 2018). If this digitalization level is reached, then the three areas will interact on a common database and collect data that can be used for future surveys.

The motivation of this paper is to be transparent about which digitalization strategy is pursued to improve specific areas of the survey management of panel studies at a scientific institute. The current and future use of the LifBi *Study Manager*, especially within the NEPS, is discussed. A similar paper could not be found in the literature. This paper will hopefully facilitate exchanges between scientific institutes that administer panel studies.

The paper is structured as follows: In Chapter 2, the study management in the NEPS is described in detail. A definition of digitalization and levels of digitalization is given in Chapter 3. In Chapter 4, for each area, the current status and aims for the digital transformation of the study management in the NEPS are described. A discussion is presented in Chapter 5.

2. Study Management in the NEPS

The NEPS is operated by LifBi on an interdisciplinary and multilocal network. The NEPS collects longitudinal data on educational processes and competence development over the lifespan (Blossfeld & Roßbach, 2019). The observation of the lifespan is divided into seven NEPS starting cohorts ranging from infants to adults. Taking a multi-informant perspective, the data collection covers not only the respective target groups but also context persons if needed (e.g., parents and school staff). In general, the respondents within each starting cohort are surveyed annually. Some panel waves are divided into several substudies in case the survey covers different respondent groups. The full survey life cycle, that is, preparing, conducting, documenting and finalizing a single substudy, can take up to two years. Therefore, several, partly complex substudies must be managed simultaneously. In total, more than 240 substudies were realized between 2009 and 2020 in the NEPS.

To fulfill high-quality standards concerning time, cost and scope (Scott, Jong, & Cibelli Hibben, 2016), a high division of labor was installed. The Center for Study Management (CSM) is an infrastructure unit that holds a key position in managing the generation of longitudinal data at the LfBi. It provides a high-level infrastructure and is for example responsible for planning, preparing, monitoring, evaluating and approving all data collections. Within the CSM, teams from different work units with specialized skills are involved: Survey Coordination, Data Protection in Surveys, Survey Administration and Controlling, Survey Technology and Study Communication. The entire CSM team collaborates closely with the Statistical Survey Methods, Scientific Data Center and content units, which are not only localized at LfBi but spread over the entire multilocal NEPS network. Content units are the given NEPS stages (eight stages from Stage 1 “Newborns and Early Childhood Education” to Stage 8 “Adult Education and Lifelong Learning”, which take care of all phases in the life course in line with the German education system) and NEPS pillars (the aforementioned stages are combined with six theoretical dimensions, e.g., the pillars “Competence Development across the Life Course” and “Returns to education in the Life Course”) (Blossfeld & Roßbach, 2019).¹ All of the mentioned work units work closely together with survey institutes such as the infas Institute for Applied Social Sciences and the International Association for the Evaluation of Educational Achievement (IEA) Hamburg, which are commissioned with the fieldwork of the NEPS surveys. The main focus of the survey institutes is the management of respondents’ recruitment (including status and contact management) and data collection. All of these actors collaborate intensively during the survey preparation. The survey preparation is defined as the phase after the planning phase, which ends with tendering the service specification for the potential survey institutes. The survey preparation begins when the large team, as introduced above, gets together in the kick-off meeting. Preparation consists of a detailed planning process, for example the creation of survey-relevant documents (cover letters, reminders, letters of thank, privacy letters, flyers, etc.), the implementation of survey instruments (paper-based, computer-based or online administered questionnaires and competence tests) or choosing appropriate survey materials (e.g., laptops, test materials, stationery) and incentives.

The given division of labor fosters the centering of responsibilities on single products and processes. As a result, the operative management within the survey preparation is at risk of becoming fragmented and therefore needs to be held together by a central player, who coordinates processes, timelines, tasks, and so forth, from an overall perspective (Schreyögg & Koch, 2007). This central player is the work unit Survey Coordination of the CSM, which integrates the different work aspects within one substudy. The Survey Coordination is responsible for the documentation of the central study design parameters from different perspectives (together with the work unit Survey Administration and Controlling) and for the scheduling and creation of processes for different products (which tasks and processes have to be taken into account at what time to ensure the quality of the products to be utilized in the surveys). To achieve the integrating function, the Survey Coordination invests in structured communication. This includes, among others, the organization and moderation of kick-off meetings, jours fixes and debriefings and setting rules of communication within the projects.

As already mentioned in the Introduction, the work of Survey Coordination, which has an integrating function in the study management, is supported by the digital tool LfBi *Study*

¹ <https://www.neps-data.de/Project-Overview/Structure>.

Manager. Some of the aforementioned tasks of the Survey Coordination are focused on digitalization strategy and categorized into three areas: Study Overview, Scheduling, and Workflows. In Chapter 4, these topics are discussed in more detail together with the digitalization strategies to be pursued. In summary, using software-supported study management with the LfBi *Study Manager* optimizes the implementation of surveys because

- all necessary information and processes are centered in one place,
- repeating tasks are standardized and are done more efficiently,
- person-independent knowledge transfer is ensured across survey waves,
- the need for communication and coordination between stakeholders is reduced and
- the monitoring of studies is facilitated.

In the following chapter, the definition of digitalization in the context of project management is discussed. In particular, a concept for levels of digitalization is introduced, and what has to be fulfilled to implement the level “learning” is explained (Timinger & Seel, 2018).

3. Definition and Levels of Digitalization in Project Management

First, a definition of digitalization or digital transformation is needed. There is no common definition in the literature (Reis, Amorim, Melão, & Matos, 2018; Schallmo & Rusnjak, 2017; Timinger & Seel, 2018). Adapted from a definition of digitized project management, the digitalization of study management is defined as *“the transformation and presentation of project relevant information through software tools”* (Timinger & Seel, 2018, p. 160). A qualitative analysis of the definitions of digital transformation by Reis et al. (2018) shows that the definition consists of three distinctive elements: technological, organizational and social digital transformation. The definition of Timinger and Seel (2018) only takes into account the technological aspect. From an organizational perspective, there are also changes in the operative management or in the qualification structure of the staff (Reis et al., 2018; Schallmo & Rusnjak, 2017). *“Digitization thus affects project management twice. On the one hand, project management is a key competence for shaping the changes associated with digitization. Process and organizational changes take place via projects. (...). On the other hand, project management itself can be digitized”* (GPM, 2019, p. 265). Furthermore, regarding the social component, digitalization changes social relationships. Digitalization fosters the networking of stakeholders (Schallmo & Rusnjak, 2017), but processes of alienation are also possible. Virtual teams and projects or the increased use of digital media restrict interpersonal components such as personal contact and other forms of formal and informal communication (Englert, 2019).

Furthermore, to evaluate the status quo and to define a digitalization strategy, it is helpful to distinguish between different maturity levels of digitalization. A well-known maturity model is the Capability Maturity Model Integration (CMMI).² Many other maturity models in regard to digitalization are based on the CMMI (Große-Schwiep, Bensberg, & Schinnenburg, 2020). All of these models consider the whole business process from a holistic perspective. The focus of the LfBi *Study Manager*, however, is on operative tasks of the survey preparation. The

² <https://cmmiinstitute.com/cmml>.

grades of digitalization (see Table 1) used in this paper are part of the Maturity Model for Digital Integration in Project Management (M2DIP) by Timinger and Seel (2018).

Table 1

Grades of Digitalization (Source: Timinger & Seel, 2018)

Grade of digitalization	Description
0 - incomplete	No systematic use of digital tools
1 - isolated	Digital tools as isolated solution without interconnectedness
2 - integrated	Digital tools are connected and have a common database
3 - learning	Integrated digital tools collect data that can be utilized in future projects
4 - autonomous	Digital tools can produce decision templates or make decisions independently based on the collected data

4. Digital Transformation of Three Areas of Study Management in the NEPS

In Chapter 2, three areas of study management in the NEPS were focused: Study Overview, Scheduling, and Workflows. As mentioned in the Introduction, the tool *LifBi Study Manager* was established to foster a digital transformation in these particular areas of the NEPS study management. Therefore, it is described which study management functions and tasks are subsumed under each area and how these functions and tasks are currently put into practice in the NEPS (see Chapter 4.1). In Chapter 4.2, the *LifBi Study Manager* and its current and future functionalities are introduced. In the previous chapter, different levels of digitalization were defined (see Table 1). The aim of the *LifBi Study Manager* is to introduce a learning system (grade of digitalization: 3), which means that the three areas interact on a common database and collect data that can be used for future surveys. The use of digital technology is an ongoing process, and goals can be adjusted in the future. Currently, the introduction of a learning system appears to be sufficient to support NEPS study management. The implementation of an autonomous system, that is, that digital tools can produce decision templates or make decisions independently based on the collected data, seems, at least for the beginning, too ambitious considering the dynamics of the NEPS study management. Therefore, the current status and planned developments in regard to the implementation of a learning system in the *LifBi Study Manager* are presented in Chapter 4.3.

4.1 Three Areas of Study Management in the NEPS

The documentation of surveys in the NEPS as a process from the planning phase to the closing phase consists of design parameters such as the survey mode, survey duration (field time), survey instruments, survey relevant documents (e.g., cover letters, reminders, letters of thanks and privacy letters), interview duration, samples and sample sizes and interviewer training parameters. The key to assuring high-quality standards are regular updates during the whole survey life cycle. Therefore, the documentation has many functions: study-specific and cross-study knowledge management, information and communication management, internal and external collaboration, management of documents, configuration and change management as well as reporting systems. There are different places and systems for these functions in the NEPS. The initial definition of study parameters is implemented within the description of services (“Leistungsbeschreibung”). Changes in these parameters are

documented as full text in the LifBi *Change Request System*. These change requests are also displayed in the LifBi *Study Manager*. Changed parameters are individually transferred to the LifBi *Study Manager* and thereby overwrite preexisting information. Changed parameters are also documented in schedules, field and methods reports, other documents and emails. The documentation of surveys is ensured over the whole survey life cycle, but currently it is not centralized and in some aspects not systematic, for example some information is documented simultaneously in the description of procedures and in the LifBi *Study Manager*.

Scheduling is also a process that endures from the planning to the closing phase. It consists of information about relevant timelines and milestones, which are important for stakeholders to structure their work. As in the case of the Study Overview, the scheduling should be up to date and fulfill many functions within the survey life cycle. However, the main function is information and communication management as well as internal and external collaboration. The initial definition of central milestones (e.g., kickoff meeting, training timelines, field time, data delivery and reporting) is also implemented within the description of services. These milestones serve as a basis for the detailed scheduling that starts before the kickoff meeting. The first drafts of study-specific schedules are discussed in the kickoff meeting and then adjusted or extended if necessary. In the further course of the survey, the schedules are updated in the monitoring processes.

Workflow management plans, monitors, regulates and analyzes survey processes, encompassing the operative management of a study from planning to closing. The most significant output of a process brought to maturity is the quality of the product, that is, high-quality workflow management is an important pillar of general quality management. These workflows are, for example documented in process descriptions to actively practice knowledge management. This is a way to keep the stakeholders informed about the current status of workflows to be used. In a large team with a high division of labor working in a dynamic multiproject environment, it is important to use an effective strategy to communicate and implement changes in workflows. In addition, process description workflows are described in so-called NEPS master schedules. In both types of documents, workflows are explained in detail, dependences between certain processes and tasks are defined, and responsibilities are presented. These documents are provided on different collaboration platforms.

4.2 LifBi Study Manager

In the following, the current functionalities of the LifBi *Study Manager* concerning the three areas of study management in the NEPS are described. The main goal of the LifBi *Study Manager* is to build a study management tool that bundles documentation functions in a central place and to implement a systematic workflow.

First, the functionalities of the Study Overview of the LifBi *Study Manager* are described. All stakeholders can open the LifBi *Study Manager* via the internal area on the neps.data-website.³ They arrive at the Study Overview with an overview about all past, current and future substudies of different projects (more information about projects at the LifBi can be

³ <https://www.neps-data.de/Mainpage>.

found on the LfBi-website).⁴ Different tabs structure the information within those substudies, for example tabs such as

- Design: general information about project affiliation (NEPS) or field access (institutional or individual context)
- Instruments: information about duration, mode (CAPI, CATI, etc.), target (parents, children, teachers, etc.), a description of how different instruments are combined in the survey phase and detailed information about the modules and items of instruments from the instrument meta database
- Documents: information about type (cover letters, reminders, letters of thanks, privacy letters, flyer, etc.), number of pages, target, dispatch (e.g., by mail or e-mail), language, and more
- Survey materials: information about type (e.g., laptops and fineliners) and more
- Training: training materials (e.g., interviewer manual, practice exercises), training duration and more
- Incentives: information about type (e.g., cash incentives and vouchers) and more
- Target: information about samples and sample sizes
- Contacts: central contact persons of a substudy with their specific function
- Change Requests: adjustments to the description of services carried out via the LfBi *Change Request System* are documented at this tab

Members of the Survey Coordination continuously update the information within these tabs. Every change in the database is saved in a history and can be traced back. After the data collection phase, the survey relevant documents such as cover letters in their final version are provided as downloads at the different tabs. The description of services, kick-off documents and field and methods reports are provided at the Design tab. However, the Study Overview cannot display all information about a survey in a tabular form, that is, all procedures of different tasks within a survey, and so forth. The aim is to provide central parameters and documents that are particularly important for survey preparation. From this perspective, the Study Overview will be extended by further parameters. All current and closed substudies will be constantly updated in regard to the missing information. A database-driven reporting system will be implemented as well so that the needed data can be downloaded for events such as the kick-off meeting or exported into other digital tools, for example tools that are relevant for data users.

From the Study Overview via the Schedule tab, a separate website can be accessed where the schedule of the substudy is visualized. The schedule is already integrated into the database of the LfBi *Study Manager*, and, as in the case of the Study Overview, a history was also implemented. This means that there is a common database for both areas. The scheduling feature in the LfBi *Study Manager* was initially introduced in a new NEPS starting cohort and, moreover, is used in some third-party funded studies. Compared to the nondigitized schedules of the NEPS, some improvements are already visible. The schedule is centrally managed by

⁴ <https://www.lifbi.de/LfBi-Home>.

the Survey Coordination. As a result, the duplication problem or the uncontrolled versioning of schedules is eliminated. It is possible for stakeholders to obtain up-to-date information about the current status of the timelines of a substudy. This means that stakeholders can see whether timelines are overdue or completed. This is highlighted by a color scheme according to the corporate design of the LfBi. In the header of the schedules, there are also relevant metadata about the substudy (study type, project affiliation, project number, etc.), which are derived from the Study Overview of the LfBi *Study Manager*. Both areas not only share a common database but also interact with each other and therefore meet the criteria of digitalization grade 2 (integrated). Changes in timelines are documented in a systematic way. The schedule is provided on the web view of the LfBi *Study Manager* and consists of a tabulated view of the timelines as well as of a visualization with a Gantt chart. Moreover, there is a special feature for stakeholders to monitor their tasks ordered by urgency highlighted by a color scheme. In addition, they can filter their tasks by actors across several substudies, that is, the stakeholders can reduce the substudy schedules according to their relevant timelines. This novelty has not yet been available for stakeholders in the study management of the NEPS. As mentioned in Chapter 2, several studies with complex designs must be managed simultaneously. This functionality allows the Survey Coordination or the stakeholders themselves to plan ahead. Thanks to this overview about their involvement in all the different substudies, they can identify periods where the workload is high or even so high that adjustments of schedules are necessary. Therefore, this development fosters an efficient use of resources. A further extension in the future is to implement a display of the latest update for each timeline in the schedule. Therefore, stakeholders could easily identify and filter for the changed timelines. In addition, a system of automated emails will be introduced, for example to remind the stakeholders of approaching deadlines. In summary, different options are already provided for stakeholders to enable them to have a good overview of their relevant timelines, and more features will follow.

Workflows as the third area have not yet been implemented and are therefore not visible in the Study Overview. To make the study management more efficient, it is planned to digitize workflows similar to a digital submission process in a scientific journal. Stakeholders will be automatically guided through particular workflows. The most important advantage of this is that relevant information is provided to the stakeholders at each step of the whole workflow. As a consequence, there is no need for stakeholders to read extensive process documentations. Nonetheless, the system can also be used to obtain an overview of the entire workflow in advance. This option offers support to inexperienced stakeholders and provides assistance during their preparatory work process. Simultaneously, both aspects help to ensure the quality of the process regardless of the level of experience of actors. In addition, the digitized workflow can support the introduction of process adaptations. Frequently updating process descriptions and ensuring that stakeholders keep updated about changes requires labor and time and cannot always be guaranteed in a timely fashion. As a result, outdated descriptions might be communicated to successors or experienced stakeholders might fail to consult the updated descriptions.

4.3 Implementation of a Learning System

In the previous chapters, the three different areas of the LfBi *Study Manager* (Study Overview, Schedules and Workflows) were introduced. In the following chapter, the vision of how these areas should interact with each other on a common database and how future surveys can

benefit from it is exemplified. Both are needed to implement a learning system, as introduced in Chapter 3.

As shown in Chapter 4.2, the areas Study Overview and Schedules share a common database and interact with each other. This fulfills the requirements of Digitalization Grade 2 (integrated). However, currently, only some design information on the substudies of the Study Overview are integrated into the schedules, for example information on the project name, starting cohort, study number, study type and date when the schedules were last updated (this is information provided by the history). In the future, the common database should increasingly be used to enable interactions between different areas. For example, the Study Overview contains information about survey relevant documents (e.g., cover letters, reminders, letters of thanks and privacy letters), instruments and survey materials (e.g., laptops, test materials and stationery) of the relevant substudies. In the schedules, there are timelines, deadlines and processes for these survey relevant documents, instruments and survey materials. An interaction between both areas can be used to generate the information on which documents are relevant for which timeline in the schedules. This is especially important for stakeholders who are responsible for the creation of the different documents. Some communication designs are extensive and therefore consist of several documents, which are created at different points in time. Linking a specific document to a designated timeline helps stakeholders keep track and facilitates working under time restrictions. An example of the connection between the Study Overview and the Workflows is the archiving of survey relevant documents, instruments and materials. In general, the survey institute delivers the final documents, and so forth, which were implemented in the survey. The work unit Survey Coordination checks the delivery for completeness and gives approval for archiving. In perspective, this process should be transformed into a digital workflow. Fundamental to this workflow should be information depicted in the Study Overview, where survey relevant documents, instruments and survey materials designated for archiving would have to be identified and marked accordingly. This overview should be displayed to the delivering stakeholder (in general, the survey institute), and the complete archiving process could be administered via this common basis. The interaction between both areas structures the archiving process and potentially reduces the communication and time effort of all stakeholders involved.

In addition to the already far advanced integration of the areas on a common database (Digitalization Grade 2), the existing inventory of studies in the database is part of the envisioned introduction of a learning system or how future surveys will benefit from the common database (Digitalization Grade 3). In general, the latest documented updates of the studies in the Study Overview are used to plan future projects. Using several central parameters of the project to be planned, previously implemented or running adequate studies can be found in the database. If the communication strategy in a new school survey must be planned, then researchers can easily access and compare all relevant studies to determine which documents they need to prepare for communication with schools, parents and students. History is a further component of the strategy to introduce a learning system. A common history for the three areas (Study Overview, Schedule and Workflows) is implemented, that is, each change of the data or process is documented and archived in the system. The history data of the Study Overview can be used to indicate repeating difficulties concerning design decisions (e.g., commonly discarded design decisions such as incentive strategies). The data are also useful to indicate design decisions made late (communication

strategy concerning the students' parents) that can have project-endangering or schedule-delaying implications (generation of the relevant documents for which, as a consequence, the dispatch is delayed). These findings can result in optimizing the management structure, for example to discuss important procedures earlier in the survey preparation. The history data of the schedules or workflows in combination with other parameters of the Study Overview can even be used to compute margins of the duration of certain timelines to derive default durations for specific projects. This can be useful to create better initial schedules in the future. For example: A school study must be planned. To be allowed to implement the survey, the authorization of the Federal Ministries of Education and Cultural Affairs in the Federal Republic of Germany is necessary. For this purpose, relevant instruments and documents must be prepared and submitted. The time needed for preparation must be planned. In a first step, relevant and comparable studies can be identified in the Study Overview. The collected data regarding the preparation time in the schedules within those studies (including the history, i.e., adjustments of timelines) can then be used to compute default durations for each working package. With the help of these values, the initial schedule can be created.

5. Discussion

As stated in the Introduction, the areas of project management in the NEPS are digitized. Commonly, digitalization models consider the whole project management of an institute or enterprise. The focus of the LfBi *Study Manager*, in contrast, is on single aspects of project management. Therefore, only different levels of digitalization that address the maturity of digitized tools are taken into account for defining the digitalization strategy. For the digitalization strategy, some of the survey preparation tasks of the work unit Survey Coordination are focused and categorized into three areas: Study Overview, Scheduling, and Workflows. The aim is to introduce a learning system (Digitalization Grade 3) for future studies as defined in the Maturity Model for Digital Integration in Project Management (M2DIP) by Timinger and Seel (2018). The three areas should share a common database and collect data that can be used in future projects.

In summary, much has already been achieved in the areas of Study Overview and Schedules. The Workflow area, however, is still at the beginning of its development. Study Overview and Schedules as well as the respective histories share a common database, and both areas interact with each other. Therefore, the requirements of digitalization grade "integrated" are met (Digitalization Grade 2). The interconnectedness of both areas still has potential for further improvement, as described in Chapter 4.3. The studies already documented in the database are part of the envisioned introduction of a learning system (Digitalization Grade 3) and offer significant benefits for planning new studies. Nevertheless, more must be invested to be able to use the collected data for planning processes and the daily work in the studies. The present focus is on specific areas of project management in the NEPS. At some point in time, the focus should be broadened to integrate further areas of project management.

The Study Overview is used in every substudy of all projects that are administered at the LfBi. The Schedule as a relatively new implementation is used in a new NEPS starting cohort and in some third-party funded studies. In the long run, the Schedule should be utilized in other substudies to expand and diversify the database. The increased use of the LfBi *Study Manager* in the survey preparation depends on how the digital tool proves itself in practice. This requirement must be evaluated continuously. In this context, it must be mentioned that

digitalization is not an all-inclusive solution, that is, it does not replace good management. Good management is the basis of digitalization. Rather, digitalization supports the management processes. For example, only a routinely running workflow where each step is well defined is suitable for programming.

As mentioned in the Introduction, the motivation of this paper is to be transparent about the current and future use of the LIfBi *Study Manager* within the National Educational Panel Study (NEPS) at the LIfBi and to initiate an exchange between scientific institutes that administer panel studies. Future activities to foster this exchange may include the integration of this topic into workshops and conferences.

The LIfBi *Study Manager* is a tool for stakeholders to support survey preparation in particular. When the substudy is archived and closed, the LIfBi *Study Manager* documents the latest status. These data could be interesting for other target groups or stakeholders, for example data users, that is, the scientific community that uses the Scientific Use Files for their research. The documentation for the data user could be enhanced by the data of the LIfBi *Study Manager*. Other projects such as VerbundFDB-Harvester (Harzenetter, Pegelow, & Weisbrod, 2021) collect data similar to those of the LIfBi *Study Manager* and focus explicitly on the provision to data users. An exchange with these projects could foster the understanding of the data users' needs in regard to the documentation of substudies.

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