

ORIGINAL ARTICLE

Using a hybrid data collection tool: Analysis of youth labour market trajectories integrating quantitative, qualitative and social network data

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Abstract

This article explains the factors that led to the use of a hybrid data collection tool—i.e., a single questionnaire designed to collect both quantitative and qualitative data—in two different research projects that focused on the relation between the labour market trajectories of young people and the use and accumulation of network social capital in these trajectories. The article describes the characteristics of this tool and the methodological challenges posed by its use. The advantages and disadvantages of this specific type of data collection are also addressed. Among the main advantages, the improvement of data quality and the overarching picture obtained of the career path and use of personal networks are highlighted. The most important downside found is the amount of time needed in the interview, which shows the need to pay attention to the balance between quantitative and qualitative elements in the structure of the questionnaire.

KEYWORDS

hybrid methods, job seeking, labour market trajectories, mixed methods data collection, personal networks, sequential data, Spain, youth

INTRODUCTION

The concurrent production of quantitative, qualitative and network data by means of a single “hybrid” data collection tool (a mixed data collection tool in which qualitative and quantitative characteristics are combined) and the challenges posed by this methodological decision constitute the focus of this article. More specifically, the article presents and discusses the use of a hybrid data collection tool implemented in two different research projects examining the relationship between the labour market trajectories of young people and

the use and accumulation (or loss) of network social capital in these trajectories. The methodological issue addressed in this article is twofold: (1) the rationale for building and using one single tool to collect different types of data, and (2) the advantages and disadvantages of using this type of tool in regard to the fieldwork and characteristics of the data obtained. The article argues that the use of a hybrid data collection tool is useful to produce quality data to address complex, multifaceted and interrelated processes, such as those mentioned above. However, the design and use of this kind of tool involves certain complexities and difficulties, which are also described and

Abbreviations: REDEMAS, Social networks as a mechanism for job search and labour market insertion in young people; CAPSINES, The accumulation and use of social capital among young people with unstable labour market trajectories.

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discussed. Although this article presents the characteristics of the data produced and the findings, it does not elaborate on how the quantitative and qualitative data simultaneously obtained were used during the data analysis stage. The article focuses on the data collection stage and does not discuss data integration issues, which have been widely discussed in many well-known mixed methods manuals (e.g., Creswell & Plano Clark, 2018; Morgan, 2014; Morse & Niehaus, 2009) and in empirical research (e.g., Harrits & Møller, 2021; Kerrigan, 2014). Thus, the article concentrates on a topic not sufficiently discussed in the mixed methods literature and helps readers to avoid in their future research some of the difficulties derived from the use of a hybrid data collection tool.

As shown by Creswell and Plano-Clark (2011; 2018), little has been written about mixed methods data collection procedures, with the exception of discussions on sampling strategies. The mixed methods methodology literature has concentrated on the combination of quantitative and qualitative components in the stages of research design and data analysis and usually assumes that quantitative and qualitative data are collected separately by using two different tools, one quantitative and the other qualitative (see, for instance, Creswell & Plano Clark, 2018; Morgan, 2014; Morse & Niehaus, 2009). However, the collection of quantitative and qualitative data using one single tool (and a single data source) is also possible (Axinn & Pearce, 2006; Creswell & Plano Clark, 2018). Axinn and Pearce (2006) use the term *hybrid* to label a data collection procedure that produces both quantitative and qualitative data, while Creswell and Plano-Clark (2018) prefer using the term “one form data collection”, in contrast to “different form data collection” when different quantitative and qualitative methods are used (Creswell & Plano Clark, 2018, p. 189). For the sake of simplicity, the term *hybrid* is used in this article. This adjective is not unknown in the mixed methods literature, as it has also been used to describe data analysis methods that combine both quantitative and qualitative characteristics in a single procedure (Bazeley, 2010, 2018; Fielding, 2012).

The collection of different types of data using the same tool is usually carried out in research conducted through surveys (Creswell & Plano Clark, 2018; Morgan, 2014): qualitative data obtained from open-ended questions within a survey are used for further exploration of the quantitative data or quantified to add further details to the closed-ended questions of a survey. However, some authors have gone beyond the collection of qualitative information embedded in survey questionnaires and have explicitly conceived hybrid tools to obtain qualitative data that are not just complementary to quantitative survey data. This is the case for researchers such as Axinn and Pearce (2006) and Gobo and Mauceri (2014).

Axinn and Pearce's (2006) methodological design is part of their research focusing on changes in resources and institutions that occurred over 42 years (1954–1996) in various

areas of the Chitwan Valley in Nepal. They adapted the *life history calendar* (Freedman et al., 1988) to their research question and the population they wanted to study. What was initially a survey questionnaire with a timeline to *anchor* memories—for example, by placing events that were collectively remembered, such as national elections, floods or the resignation of the king—became a new, single data collection tool with characteristics of both structured methods, such as surveys, and less structured methods, such as unstructured interviewing (Axinn & Pearce, 2006, pp. 106–112). This new hybrid questionnaire was often answered collectively, in the frame of an open conversation.

For their part, Gobo and Mauceri's (2014) proposal develops the basic idea of the conversational interview (Schober & Conrad, 1997) to propose a new type of survey, which they call *inter-vey*, in which both qualitative and quantitative elements are merged in a single instrument. As in a conversational interview, one of the objectives of an *inter-vey* is to clarify the concepts mentioned in the questions, but this clarification is framed as a verbal interaction that is similar to a chat between an interviewer and interviewee in qualitative interviews (Gobo & Mauceri, 2014). Gobo classifies this type of interview as what he more generically calls *merged methods*, highlighting that they combine “both qualitative and quantitative approaches in a single instrument, squeezing the advantages of both in a single technique” (Gobo, 2015, p. 331).

In the following sections, different aspects of the building and use of a hybrid data collection tool applied to the study of the relationship between youth labour market trajectories and social capital are presented and discussed. First, the characteristics of the two research projects where the hybrid tool was used and the characteristics of the tool are discussed, beginning with a short theoretical section presenting the complexity and multiple directions of causality in the relationship between labour market trajectories and social capital. Second, the advantages and downsides of the use of this type of hybrid method for research are evaluated and discussed. Finally, in the concluding section, the findings and knowledge resulting from the use of this hybrid tool are summarised, and a general reflection on the use of this kind of method is presented.

STUDYING YOUTH LABOUR MARKET TRAJECTORIES AND SOCIAL CAPITAL USING A HYBRID DATA COLLECTION TOOL

The relationship between youth labour market trajectories and social capital

The literature has highlighted the process of feedback and reinforcement of the initial unequal endowments of

social capital in labour market integration (Lin, 2000; Moerbeek & Flap, 2008): a high endowment of social capital facilitates labour market integration and career stability, which eventually provides access to better information on job vacancies and opportunities for professional achievement; a reverse process occurs for people with a low endowment of social capital. These unequal endowments of social capital are linked to individual characteristics such as gender, age and social background, as access to resources embedded in personal networks is strongly associated with the web of (unequal) social relations individuals are a part of (Granovetter, 1985). The present-day context, where young people face non-standard and particularly difficult labour market transitions, adds extra layers of complexity to this relationship. The uncertainty of youth career paths and the multifaceted relationship between variables, marked by the time dimension, shows the importance of using sequential data for the analysis of the link between labour market positions and network social capital. Both from an aggregate (macro) point of view and from an individual (micro) point of view, a cross-sectional snapshot of the labour market situation and the personal network of contacts at a certain point in time may feature a different picture if taken a few years before or a few years later.

The existing literature has already addressed the time dimension in the analysis of the role of personal networks in the labour market integration and advancement of young people (e.g., Ryan et al., 2019; Verhaeghe et al., 2015); but this literature, to the best of our knowledge, has not addressed sequentially the two-way relationship between the composition and structure of young people's personal networks (contacts among their personal contacts) and their trajectory in the labour market. This is because existing sequential databases, as well as surveys developed in specific research projects, are usually limited to the characteristics of personal contacts and do not consider the structure of connections among these contacts, which requires much more time to obtain. A third type of information could be added to the previous ones in order to obtain the most complete and comprehensive view possible of the relationship between labour market trajectories and the accumulation of network social capital: biographical-narrative data. This kind of data is useful for understanding individual decision making in trajectories (Hollstein, 2019) and identifying those events and transitions that constitute key moments of biographical rupture (Verd & López, 2011). For example, it is at such turning points that the (potentially crucial) role played by specific personal or institutional support in the redirection of a career path can be best assessed.

The projects carried out

According to Creswell and Plano-Clark (2018, p. 189), the use of a single data collection tool “may be preferred if the researcher’s interest is to capture multiple facets of a phenomenon from each participant”. This was, indeed, one of our interests. The objective of obtaining the above mentioned three types of data—quantitative career data, quantitative network data and qualitative biographical-narrative data—in an integrated and articulated way was an essential aspect of the two research projects described next. The reasons for building and using a hybrid data collection tool, the fieldwork carried out, the data obtained in these projects and the findings are addressed in the subsequent sections.

Table 1 presents the objectives and characteristics of the fieldwork for the two projects¹ in which a very similar hybrid data collection tool was used. The main objective of the first project was to find out to what extent personal contacts that offered useful support along the labour market trajectory overlapped or not with those who offered other types of support (economic, expressive, emotional, etc.). The age range of the population considered was 20 to 34 years. In the second project, the main objective was to understand the extent to which spells of precarious employment or unemployment along the labour market trajectory influenced the characteristics of network social capital and the way this social capital was used in subsequent transitions in the labour market. In this project, the population under study was young people between 29 and 34 years of age whose working trajectory had periods of contractual instability or unemployment.

In both projects, the complexity and the multiple directions of causality required a comprehensive and holistic perspective and a careful and detailed data collection procedure, very much in the style of the qualitative biographical approach (Wengraf, 2001). Thus, the use of a hybrid data collection tool provided the wealth of information offered by a qualitative approach while at the same time offering the possibility of producing different standard quantitative data matrices, useful, for example, to apply sequence analysis methods. The use of a single tool combining quantitative and qualitative characteristics was risky, as it involved methodological difficulties, but after weighing the pros and cons, this methodological route was explored. The characteristics of the hybrid tool and

¹These projects were called REDEMÁS (Social networks as a mechanism for job search and labour market insertion in young people) and CAPSINES (The accumulation and use of social capital among young people with unstable labour market trajectories). The fieldwork for both projects was carried out in the metropolitan area of Barcelona, Spain.

TABLE 1 Projects where a hybrid data collection tool was used. Objectives and characteristics of the fieldwork

	Project 1 (REDEMÁS)	Project 2 (CAPSINES)
Objectives	Finding out the extent to which personal contacts who offered useful support in finding employment along the labour market trajectory overlapped with those who offered other types of support (economic, expressive, emotional, etc.)	Finding out the extent to which spells of precarious employment or unemployment along the labour market trajectory influenced the characteristics of social capital and the way this social capital was used in subsequent transitions in the labour market
Characteristics of the population considered	Young people between 20 and 34 years of age residing in Barcelona metropolitan area who had at least one employment experience	Young people between 29 and 34 years of age residing in Barcelona metropolitan area who had been unemployed for at least six months or with a temporary contract for at least 12 months
Sampling strategy	Quota sampling	Quota sampling
Sample size	250	150
Data collection tool	Hybrid questionnaire	Hybrid questionnaire
Year of fieldwork	2014	2018

the way it was built are described below, while the pros and cons of the tool are discussed further down.

The characteristics of the hybrid tool

In both projects, the point of departure for the design of the data collection tool was a quantitative questionnaire aimed at recording all the events related to employment or training done after or in parallel with the first job that an individual had after reaching the age of 16 (Vacchiano et al., 2018). Additionally, in both projects, the quantitative (closed-ended) questions in the survey were organised into three main blocks. First, information about the interviewee's sociodemographic characteristics and his/her most recent position in the labour market was obtained; second, the interviewee's career was reconstructed retrospectively together with the characteristics of the contacts that helped throughout this career; and third, the characteristics of the network of supportive contacts was explored. The content of this third block of the questionnaire was slightly different in the two projects; in the first project, a closed list of 20 active contacts at the time of the interview was requested, while in the second project, this list of personal contacts was constructed only of people who were helpful in the job seeking process, without setting a minimum or maximum number. As accessing and storing the names of these contacts raises ethical issues, the interviewees were asked to provide a first name or a nickname so that only the interviewee could recognise these people.

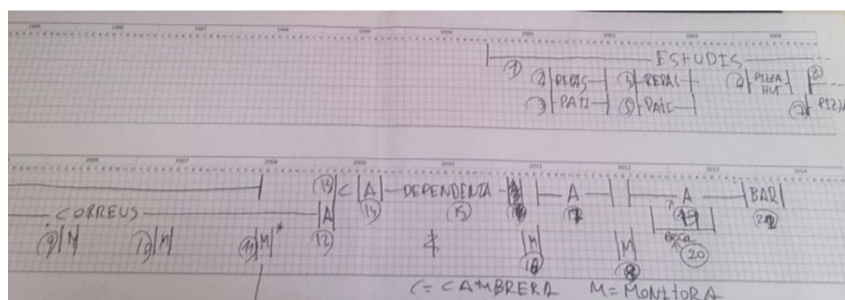
Several qualitative blocks were incorporated into this initial quantitative framework, resulting in a new single

tool with both quantitative and qualitative characteristics, in line with the proposal of Axinn and Pearce (2006). These changes also involved the reordering of the blocks and questions, as presented in Table 2 for the two projects. It should be noted that the final configuration of this new tool was the result of multiple pilot tests carried out during the first project and its subsequent use in the fieldwork in that project. The knowledge obtained will be discussed in the discussion section.

The first qualitative element that was included in the questionnaire was a life grid (Nico, 2016; Parry et al., 1999). In its most basic format, this instrument consists of a timeline in the form of a grid, normally organised in months or years, on which the interviewee can retrospectively locate personal or collective events so that it is easy to recall and record the start date, end date and duration of the events narrated. Sometimes, to facilitate recall, important events anchored in the collective or individual memory are placed on the baseline timeline so that the person interviewed can link their personal memories with those events. This instrument was used in both projects. Although the literature points to the use of life grids as both a quantitative template and a qualitative tool (Parry et al., 1999; Wilson et al., 2007), in our case, a life grid was used only as a qualitative tool to facilitate and order the recall of events. Once the sketching of these events on the grid was completed (see Figure 1 for an example of the life grid used), they were reviewed in detail and then recorded using the software used to collect the data.

The second qualitative element embedded in the survey was a block of biographical open-ended questions, which could be extended with new questions raised during the conversation, in the style of a short semi-structured

Project 1 (REDEMÁS)	Project 2 (CAPSINES)
<i>1st block of questions</i>	<i>1st block of questions</i>
Interviewer asks close-ended questions about sociodemographic characteristics and most recent labour market status of interviewees	Interviewer asks close-ended questions about sociodemographic characteristics and most recent labour market status of interviewees
<i>2nd block of questions</i>	<i>2nd block of questions</i>
Interviewee represents his/her labour market trajectory on a life grid and interviewer asks open-ended questions about the events on this representation	Interviewee represents his/her labour market trajectory on a life grid and interviewer asks open-ended questions about the events on this representation
<i>3rd block of questions</i>	<i>3rd block of questions</i>
Interviewer asks close-ended questions about all the employment or training events along the trajectory and characteristics of the social capital mobilised (when applicable)	Delving into the information on the life grid, interviewer asks open-ended biographical questions to explore the objectives of interviewee along the trajectory (if any), his/her degree of agency, and the subjective turning points along the trajectory
<i>4th block of questions</i>	<i>4th block of questions</i>
Interviewer asks close-ended questions about a closed list of 20 active personal contacts who offered different kinds of support (economic, expressive, emotional, etc.) along his/her trajectory	Interviewer asks close-ended questions about all the employment or training events along the trajectory and characteristics of the social capital mobilised (when applicable).
<i>5th block of questions</i>	<i>5th block of questions</i>
Interviewer asks interviewee to visualise and comment on the network representation of his/her personal contacts.	Interviewer asks close-ended questions about an open list of personal contacts who were helpful in any job seeking process along the labour market trajectory
<i>6th block of questions</i>	
Interviewer asks open-ended biographical questions to explore the objectives of interviewee along his/her trajectory (if any), his/her degree of agency, and the subjective turning points along the trajectory	



interview (it took approximately 15 min). In the first project, this qualitative interview was conducted at the end of the questionnaire, with the objective of capturing interviewees' views on their careers and the labour market-related decisions they had made. In the second project, this short qualitative interview was developed simultaneously with the use of the life grid, since we realised that this positioning improved both the use of the life grid and the development of the interaction with interviewees. Qualitative interviews helped to better recall the events represented in the life grid, and the life grid worked

The third qualitative element that was incorporated into the questionnaire was used only in the first research project. It consisted of the visualisation of the network representation of contacts reported by the interviewee; this representation was obtained by means of the software programme used to collect the data (EgoNet), and was presented to the interviewee before the qualitative biographical questions. Although the visualisation of the network could potentially produce uncomfortable representations

of the interviewees' relationships (see Tubaro et al., 2021), our experience was highly satisfactory and similar to that reported by McCarty et al. (2007), in which network visualisation worked as a cue to develop further reflection on the interviewee's network of supports and to check the accuracy of the information obtained. In addition, the graphic representation of the contacts made it possible to deepen the importance of the different spheres of sociability where interviewees had acquired these contacts.

Sample and fieldwork

The sample and fieldwork for both projects also combined quantitative and qualitative characteristics. First, Project 1 (REDEMÁS) included 250 individuals and Project 2 (CAPSINES), 150. These relatively small sample sizes were justified by the characteristics of the data collection tool and the volume of information collected in the survey. Given the dilemma of choosing either a greater number of respondents or higher quality—reliability and internal validity—of the information collected, the second option was chosen. Moreover, this sample size is common in social network analysis, as the final number of individuals analysed is the result of multiplying the interviewees' sample size (called *egos*) by the number of contacts (called *alters*) mentioned by every interviewee (Crossley et al., 2015). In addition, a non-probabilistic quota sampling based on sex, age, neighbourhood, country of birth and education level was used to guarantee that the most relevant social structuring variables were present in the sample in the same proportion as found in the population of the metropolitan area of Barcelona. Keeping these proportions allowed a statistical descriptive analysis of the sample to be carried out, avoiding a possible bias regarding these variables.

The sample size of the projects made it possible for members of the research team to conduct all the interviews, so outsourcing of questionnaire administration was not necessary; as a result, the impersonal and de-contextualised form of interaction typical of fieldwork in survey studies was avoided. As stated by Seale (2004), historically, with the standardisation of information for the purposes of statistical analysis and the development of large-scale surveys, the recruitment of "hired hand" interviewers has been required, resulting in interviewers being simple "stimulus deliverers" that "would not know much about the purpose of the investigation" (p. 104). In contrast, in our case, all interviewers were members of the research team, participated in the meetings held about the projects and understood the objectives and theoretical framework of the research. Moreover, all the interviewers participated in training meetings aimed

at instructing them to use the questionnaire and survey software used in the fieldwork, as well as in briefings held during the projects to share fieldwork experiences and to harmonise the coding of certain difficult responses—in the sense of knowing what category to assign to them—offered by interviewees.

Indeed, by not using "hired hands" the interviewers' interest in the information provided by interviewees was more evident and the interaction between interviewers and interviewees was open and flexible, easing communication and facilitating rapport between them. In other words, the style of interaction was that of a qualitative interview. This conception of the whole interview as a conversation-like interaction and the attention to details also implied that there were no problems to add or modify events on the timeline initially represented in the life grid during the conversation; sometimes, an event in the life grid was only recalled after some time by interviewees. In both research projects, the software used did not require a chronological ordering of events as the primary focus was on recording the start and end dates of each event. Later, in the quantitative treatment of the data, these events were ordered chronologically. The last qualitative trait of the interaction between interviewer and interviewee was the audio recording of the whole conversation.

Data and analysis

The fieldwork developed in the two studies yielded interesting quantitative and qualitative data. On the one hand, three different quantitative matrices with three kinds of units of analysis (cases) were produced: (1) interviewees (*egos*) and their sociodemographic characteristics and trajectories, (2) the separate events of each trajectory, and (3) the personal contacts mentioned in the interview (*alters*) and their sociodemographic characteristics. On the other hand, qualitative information was obtained that contained the narrative of participants' trajectories and reflections in relation to those trajectories.

These two types of data could be analysed independently using the corresponding quantitative or qualitative data analysis methods, or integrated, giving priority to either the qualitative or quantitative data (see Morgan, 2014; Morse & Niehaus, 2009). Regarding qualitative data, all or a subset of the narratives obtained could be directly analysed following a purely qualitative strategy, which would result in a qualitative approach to the study and findings. This strategy was followed by Vacchiano (2021). Data analysis could also follow the rationale of a sequential *quant* → *QUAL* design (see Morgan, 2014), in which a quantitative analysis of the close-ended questions is first carried out, and then, the qualitative information

belonging to the cases that were particularly outstanding in the quantitative results in regard to specific research questions was selected for a detailed qualitative analysis of their narratives. The difference with the most common *quant* → *QUAL* design is that only one tool (and one source) was used to collect the quantitative and qualitative data. This was the strategy followed by Vacchiano et al. (2021). However, other types of integrated analyses in which either qualitative or quantitative information takes priority in the analysis are possible. For instance, quantitative information about the characteristics of personal contacts and network structure, which could be analysed with standard Social Network Analysis quantitative methods, is helpful to provide (relational) context to the qualitative information on the strategies used to mobilise contacts and find a job (Muntanyola et al., 2019). This kind of use of quantitative and qualitative data adopts the logic of a *QUAL* + *quant* design (Morgan, 2014).

Findings

As mentioned above, the findings derived from the projects sometimes relied mostly on the qualitative data, as in Muntanyola et al. (2019) or Vacchiano (2021), sometimes relied mostly on the quantitative data, as in Vacchiano et al. (2018) or Bolívar et al. (2019), and sometimes combined both kinds of data, as in Vacchiano et al. (2021). Each publication focused on specific aspects of the research, but some of the main findings are briefly and generically mentioned in what follows.

An initial interesting finding of this research was that, unlike the canonical hypothesis about the *strength of weak ties* (Granovetter, 1973, 1974), family ties (i.e., strong ties) were the main source of useful support for labour market integration among young people. However, it should be added that the importance of family depends on different elements: (1) it was more important at the beginning of the working career than later on; (2) it was more important after the 2008 recession than before; (3) it was more important among young people with a low family socioeconomic background than among those with a middle and high socioeconomic background. These findings, which were obtained from the analysis of the quantitative sequential data on employment and social contacts, coincide in part with findings reported in previous literature (see a review in Kramarz & Skans, 2014). However, the multiple facets from the same phenomenon obtained thanks to the quantitative and qualitative data gathered simultaneously from the same individuals provided us with a broader and more nuanced picture of the importance of family ties in labour market integration. In this sense, it was found that the support offered by family ties was of a different nature

for young people with a low family socioeconomic background than for those with a middle and high socioeconomic background. Family ties among the former provide contact with persons of higher status and/or belonging to the labour market sphere (for example, employers or co-workers of family members); therefore, family members (strong ties) serve as intermediaries with helpful contacts outside the family sphere (weak ties). In contrast, young people from middle and high socioeconomic backgrounds obtained more direct support within the family network. In addition, in terms of agency, the findings show that young people from higher socioeconomic backgrounds and with stable occupational paths were able to mobilise fewer contacts more efficiently, obtaining better outcomes. This can be explained by the learning process that young people with this profile undergo in job-seeking, as well as by the fact that having “quality contacts” in a personal network reduces the number of jobs individuals apply for before successfully finding employment. These additional findings should always be placed in the context of the differences in the use of family contacts highlighted above.

DISCUSSION: ADVANTAGES AND DISADVANTAGES OF USING A HYBRID DATA COLLECTION TOOL

In this section, the advantages of using the above-described hybrid data collection tool are first presented, followed by the disadvantages.

First, regarding the data collection process, the interaction between interviewer and interviewee was far from the impersonal and distant relationship typically found in the administration of a survey questionnaire. Given the characteristics of the tool used, this interaction was close to the (usually) flexible and enjoyable interaction present in qualitative interviews. This conversation-like exchange included questions about the social, family and work context in which the labour market trajectory was developed, as well as requests for clarification and details (probing) with the aim of facilitating the recall of the events described and the collection of all information with maximum accuracy. The exchange also allowed for good rapport between the interviewer and interviewee, and therefore, had a positive effect on the quality of the data obtained.

Regarding the reliability and internal validity of the data—or credibility and consistency, using the terms proposed by Lincoln and Guba (1985)—different advantages were identified. First, the possibility of recording qualitative information and the depth and richness associated with it provided a good context for deepening and probing the responses to the most standard quantitative closed-ended questions in the questionnaire. This advantage is

directly connected to the capacity of hybrid tools to help researchers clarify and better understand how interviewees interpret question categories, as highlighted by Gobo and Mauceri (2014). Additionally, the use of a qualitative life grid gave researchers confidence about the accuracy of the sequence of events collected and the findings obtained through their analysis, knowing the potential recall bias of retrospective sequential data (Parry et al., 1999). Second, the qualitative information obtained provided important insight into the agency, objectives and representations of the interviewees, i.e., it provided the interviewees' perspectives in connection with their actions. In this way, interpretation of the data was improved, as the motives or reasoning behind the observed actions was known. Third, the collecting of quantitative, qualitative and network data together, and as part of an individual narrative, provided a comprehensive view of the life of interviewees; their labour market trajectory and personal network were parts of a single overarching picture, which included other information regarding social background, educational level and other relevant variables associated with their labour market status and network social capital. Finally, the richness and dimensions of the information and the internal connections revealed in the data allowed for an articulated approach to the complexity and multiple dimensions of the research object. A good example of the outcomes obtained from this articulated approach is the broader and nuanced picture of the use of family ties for labour market integration and its relationship to the individual's socioeconomic background, as reported above.

The most important limitation was the amount of time the tool, as initially designed, required. The objective of collecting different types of data with a single tool in one research encounter resulted in a lengthy interview process. We realised in the pilot tests during the first research project that the initial questionnaire was too ambitious regarding information on the network of contacts. Therefore, in the final version of the questionnaire, the part on the network of contacts was trimmed down. This decision was made after identifying a sort of trade-off between the details of sequential information and those of personal network information, and after considering that the detailed information on labour market trajectories was more important for the objectives of the project. However, even after reducing the number of questions about contacts, and given that the number of events in some labour market trajectories was very high—reflecting unstable and precarious careers—some interviews were still quite long, lasting up to 3 h. This length could potentially result in a decrease in reliability towards the end of the interview caused by interviewee fatigue. This problem was solved by ensuring that the interaction between the interviewer and interviewee was loose and flexible, in the style of a casual conversation,

which provided a qualitative framing to the administration of the questionnaire. In addition, care was taken to avoid the potential ethical problems of these lengthy interviews. First, the persons interviewed were warned about the length of the interview and were advised to have a look at their curriculum vitae before the research encounter or to even bring it to the interview. Second, interviewees were selected based on their willingness to participate in the survey, their time availability was respected, and interview sessions were adapted to their convenience.²

The learning process just mentioned regarding the use of our tool was taken into account in the second project, in which a better balance between quantitative and qualitative elements was sought so that the quantitative part was shorter, even if it continued to have more weight than the qualitative part. Thus, in the second research project, the presence of the quantitative and qualitative elements in the questionnaire was more similar, and the overall interaction between interviewer and interviewee was shorter (between 90 and 120 min). Moreover, in the second research project, qualitative biographical questions were placed earlier in the questionnaire, just after the block where the life grid was used (see Table 2). This produced a synergy between these two blocks and proves that the sequence of the blocks is very relevant in the design of a hybrid questionnaire. Biographical questions were sometimes taken up throughout the conversation between the interviewer and the interviewee, too. This increased the flexibility of the questionnaire and enhanced the rapport between interviewer and interviewee.

CONCLUSIONS

This article describes the use of a hybrid data collection tool applied in two research projects that examined the relationship between the labour market trajectories of young people and the use and accumulation (or loss) of network social capital along these trajectories. First, the rationale for using this kind of tool was presented. The research questions of the projects were multifaceted and had many levels and dimensions, and causality among the variables could develop in multiple directions. The use of a single data collection tool allowed these multiple

²Although a statistical generalization of the results was not sought—given the sample sizes and the non-probabilistic character of the sampling strategy—the potential bias this willingness to participate could introduce in the sample was controlled by means of a close and strict monitoring of the interviewees' fit to the established sample quotas, which were based on the variables considered as having the most relevant influence on labour market trajectories and social capital characteristics.

levels, dimensions and variables to be gathered from every interviewee, while at the same time maintaining a comprehensive and overarching view of the interrelationship between labour market trajectories and changes in personal networks.

Of course, using a single tool producing different data types was not the only possible option, as data could be produced separately with different tools and later combined. However, synergy was gained (see Fetters & Freshwater, 2015) by the combination of both qualitative and quantitative characteristics in a single data collection tool. Axinn and Pearce (2006) and Gobo and Mauceri (2014) have already highlighted some of the advantages of this kind of data collection tool, although the tools they designed were different from ours and were not applied to the broad field of the relationship between young people and the labour market. This article emphasises the advantages regarding the characteristics and quality of the data obtained, although the downsides have also been addressed.

One of the main advantages that should be mentioned is that the data obtained permitted us to address simultaneously the different aspects of the research questions posed. Although some questions in the questionnaire had the usual closed-ended format of a standard survey, offering the possibility of producing different quantitative data matrices, the introduction of various qualitative blocks in the questionnaire produced qualitative data that could be easily integrated with the quantitative data.³

It can be argued that the comprehensive character of the data collection process is, in a certain way, a return to the characteristics that, until the 1940s, were widespread in survey research. Until then, survey research was not synonymous with quantitative research since, in many cases, both quantitative and qualitative data were collected in interviews (Fontana & Frey, 2000). This more artisanal, less impersonal way of obtaining data was lost due to the standardisation of information for statistical analysis and the development of large-scale surveys (Seale, 2004). In the case of the two research projects reviewed, this impersonal way of obtaining data was avoided because the sample sizes allowed the research team to be involved in the data collection process. A return to this type of research approach would make great sense for addressing certain complex research topics, such as those mentioned here.

The downside of the hybrid tool was that the increased insight gained was at the expense of a lengthy interview. This could lead to interviewee fatigue and has ethical

implications. Two solutions were applied in the second project to overcome this drawback. The most obvious and straightforward solution was to reduce the number of questions so that the interview duration was two hours at most. Even with this length limitation, a second strategy was applied: interviewers tried to turn the survey into a conversation-like interaction, introducing more open-ended (qualitative) questions throughout the interview process and playing a role far from a simple “stimulus deliverer”. This produced a more pleasant and enjoyable dialogue, reducing fatigue and the research burden on interviewees.

This leads to a more general reflection on the use of hybrid data collection tools and the need to balance their qualitative and quantitative elements. The collection of different types of data—quantitative, qualitative and network in our case—with the same tool is a less flexible strategy than is the use of two different forms of data collection, as in more common mixed methods designs. When using different forms, the design and application of each data collection tool is developed separately, which allows for multiple options, regarding, for instance, just to name a few, the ordering and timing of fieldwork, the size of the sample to which data collection tools will be applied and the kind of interaction between interviewer and interviewee. When using a hybrid data collection tool, there is only one single moment of data collection, only one sample and only one kind of interaction possible. Therefore, a “commitment decision” must be made to avoid jeopardising the essence and quality of the different kinds of data that are simultaneously obtained. In return, the above mentioned advantages are obtained. Therefore, the use of a hybrid tool should be given serious consideration if the research objectives and research object justify its use.

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CONFLICT OF INTEREST

The author declares that he has no competing interests.

DATA AVAILABILITY STATEMENT

The data bases mentioned in the article are available upon request to the author.

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³The way this information was integrated during the data analysis stage is not discussed in the article.

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