10 Instruments for gathering data

Laia Canals[1]

Key concepts: data types, learning tasks, classroom observation, focus groups, debates, narratives and interviews, questionnaires and surveys.

1. Introduction

This chapter sets out various methods for gathering important data on the language uses of participants in a research project. These methods imply interaction between students, teachers and researchers. They are used in the design of research projects based on action research, ethnography or conversational analysis, this being the case with the studies presented in the first section of this handbook. Gathering research data following these methodologies often implies preparing situations, tasks or activities that engage participants to interact around a specific theme or to mobilize certain communication skills.

The methods used to gather data, as explained in other chapters, are determined to a large extent by the research questions and objectives, although in qualitative research it should be borne in mind that these will change during the process. Generally speaking, data collection in the field of language education is done in situations that try to reproduce real-life communication scenarios in which the participants make oral or written contributions that are useful for research purposes and, at the same time, beneficial for their learning process.

As we shall see in the following pages, there is a broad spectrum of methods, including more traditional ones such as surveys, questionnaires and interviews,

1. Universitat Oberta de Catalunya, Barcelona, Catalonia/Spain; ecanalsf@uoc.edu

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through to more innovative ones such as projects, tasks and other classroom-based activities or focus groups about a particular topic. As explained by Nussbaum (this volume), it is advisable that the researcher also takes on an active role as a committed participant in the learning and teaching processes, and includes educational innovation when planning his or her research.

2. Types of data to be collected

The research questions and objectives of a particular study will determine whether the aim is to obtain purely interactional data or data that also inform us about the interactional behavior of the participants in the context under study or in other contexts. At the same time, we might be interested in obtaining data that allow us to explore in greater depth the linguistic identities, learning pathways, attitudes towards different languages, and other aspects that may not be strictly language-related but are often essential to studying language learning in plurilingual situations.

Thus in the following sections we will examine what kinds of data we can gather in each case to subsequently clarify which methods will be the most appropriate. The distinctions suggested further on between purely linguistic or interactional data and those that reflect attitudes, identities and behavior are not exclusive categories, but rather are intended as ways of addressing the data. This distinction could be particularly useful when planning the tools or the types of questions and tasks that will enable us to obtain one type of data or another.

The data collection methods described in this chapter usually refer to oral data. These data are gathered by either audio or video recordings so they can be transcribed and analyzed later on (see Moore & Llompart, this volume). It is also worth mentioning that many of the methods presented herein can make use of the digital tools and data processing methods described in Antoniadou's chapter in the second part of this handbook.

2.1. Data that reveal how plurilingual people define their language use

Data on language knowledge, attitudes, linguistic identities and interactional uses of the informants in a non-observable context (with friends, at home, etc.), amongst other aspects, can often be deduced from an analysis of their interactions in the classroom, from open interviews, focus groups and other kinds of more naturalistic data. However, they can also be elicited from questionnaires or surveys that ask for personal details through closed-ended or semi-closed questions, which may include information on language knowledge, uses, affiliations and attitudes of the participants.

For example, asking participants what language they use with different members of their family or friends, or in which situations they tend to use one language over another, helps us to analyze interactional behavior or the scope of use of their languages. This information can be obtained with questionnaires and surveys using closed questions, but it should be taken into account that there may be multiple answers or a need to convey subtle nuances in certain cases. It should be borne in mind that languages are not always used in compartmentalized ways, in different surroundings or for different purposes. It is therefore important to consider whether the instrument for gathering data also allows more hybrid language usage to be described (see Nussbaum, this volume, for a discussion on plurilingualism).

It may be interesting, especially if questionnaires or surveys are used, to do a test run to check the suitability of the questions. When we ask closed-ended questions in a questionnaire, we often find out later on that the response options we gave do not help describe real language use. For example, in a study that aims to determine the choice of language by bilingual people in a family setting, when respondents are asked about what language they use with their siblings, it should be taken into account that only answering language A or language B does not allow the complex linguistic situations we can observe in bilingual or multilingual settings to be fully described. It would need to include options with distinctions such as: I speak more of language A than B, I use both A and B, I use language B more than A, and so on.

2.2. Data that reveal plurilingual people's language use

This kind of data can be obtained by projects (see Nussbaum, this volume; Unamuno & Patiño, this volume), tasks (see Masats, this volume), or other activities that facilitate certain types of interaction. The participants need to feel free to express themselves in a relaxed atmosphere. It is difficult to obtain true data in a laboratory setting, where the speakers see these kinds of activities as extremely formal situations in which they are expected to speak in ways that have little to do with their real-life use. Nerves can also affect the way people speak or can make them express themselves in shorter sentences out of fear of making mistakes.

North-American sociolinguist William Labov (1972a) showed that if we wish to obtain data on how the informants speak in informal situations, we need to recreate those same situations. Labov, who used the interview method, only managed to get relevant linguistic data on young speakers of African American Vernacular English when he was able to recreate the optimum sociolinguistic situations with the right interlocutors. He arranged an informal setting for the interviews (everyone sat on the floor with a bag of potato chips) that were conducted by interlocutors of a similar ethnicity and age as the informants.

If we want to obtain data from everyday situations of language use, such as language classes in school, we need to think of ways of overcoming the natural inhibitions of students in front of a camera or recording device, the fear of speaking and making mistakes, and take into account the personalities of the informants when planning the design of our research.

The following section presents some of the methods that have proved useful in classroom research. Later on, we describe other methods such as focus groups, debates and interviews, which can be used as a classroom task or as an independent instrument. Finally, we look at questionnaires and surveys as another way of obtaining data in mixed-methods research studies (see, for example, the chapter by Pascual, this volume).

3. Learning tasks

Mackey and Gass (2005) describe a good number of learning tasks divided into one-way tasks, where information is passed from one person to another, and two-way tasks, where there is an exchange of information between the participants who need to cooperate to complete the task. The first type of task could be, for instance, the description of a drawing, and the second type of task could be an information gap exercise, where each of the students has a piece of essential information that they need to share with the others in order to complete the exercise.

Another way of classifying tasks is based on the type of outcome expected from them. There are closed tasks, from which a correct or incorrect solution is expected, and open tasks, where participants have to reach a common agreement or extract conclusions after a discussion or debate.

Each one of the following tasks elicits different types of data which will be determined by our interests, objectives and research questions. When recording natural interactions it is worth remembering that the tasks should be chosen based on the type of language the research is set to obtain.

3.1. Descriptions of photos or images

This task takes as its starting point an image that might spark off a story or a descriptive narrative: for example, a comical situation. When it comes to choosing the images, the researcher needs to consider whether the image would motivate people to say something. If one cannot find anything interesting or appealing to talk about in the picture, it is highly unlikely that it will be effective for eliciting data from research participants.

3.2. Finding the differences

This activity, designed to be done in pairs or groups of three, elicits comparative linguistic data. While it is a closed task, whereby all the informants have the same type of information, it does facilitate the recording of a lot of speech, although not necessarily extensive interactions between the different participants.

3.3. Exercises in which each student has a piece of information missing

In these tasks, usually done in pairs or groups of three, the participants have to collaborate and interact verbally to solve the task. The task might consist of a city map on which each person has to position different shops or buildings and deduce where the other ones are. This helps to obtain data on interaction and also data on specific linguistic elements (the use of location adverbs in this particular case). For the task to be completed successfully, it is important that the participants do not show their drawings to one another.

3.4. Retelling stories

This task can be done using comic stories, short videos (cartoons, for example), or by verbally telling a story to groups or individuals. Students are given time to read, watch or listen to the story and then asked to give a detailed explanation of what they have read, seen or heard. Depending on the type of data elicited in each case, the researcher can ask for clarifications or more detailed descriptions of the elements on which the researcher would like to focus.

3.5. Deducing rules

This task can be done in groups or individually and can be combined with sheets or cards containing partial information on the final solution. In other cases, you might give the students correct and incorrect sentences and ask them to work out the rules. This task elicits metalinguistic data and interactions among participants when they formulate different hypotheses. In language classes, at the early stages, it might be difficult for students to use the target language to solve these tasks. In this case, it might be worth reflecting or focusing on linguistic and metalinguistic knowledge, regardless of the language actually used during the task.

4. Observation in the classroom

Observations in classrooms where the researcher is also the teacher, or a participant in a project, are one of the most widely-used methods for research in language education. Researchers can make use of observation guides that will help them focus on what they need to know (see the chapter by Pascual, this volume). This is highly recommended when more than one researcher is involved in gathering data as it ensures that everyone follows the same procedure.

5. Focus groups, debates, narratives and interviews

The following methods have been placed in a new section because although they can certainly be carried out as learning tasks in lessons, they are also often used outside the classroom.

5.1. Focus groups

In focus groups the participants are invited to talk about their views, attitudes and beliefs in relation to a particular subject, concept or idea. This might include questions to guide the informants on talking about certain aspects to be considered for each subject or sub-topic. The type of data that can be obtained in this way include opinions, assertions about beliefs, expressions of agreement or disagreement with other participants, and processes in which individual or group identities are built.

5.2. Debates

During a debate, each person is asked to take a stance either for or against a certain topic or idea. This can be done at random or by assigning different roles to the participants. For example, someone might be the city mayor, another a mother with two teenage children, a third might be the chief of police, a fourth a teenager, and someone else a beer hawker. Everyone needs to discuss the new draft law banning the consumption of alcoholic drinks in public spaces. These tasks help to elicit data such as the expression of opinions, arguments, rebuttals of arguments, and discussions that can often get out of control. It is advisable for there to be a moderator in charge (teacher, researcher or another participant who is charged with controlling the others if the task gives rise to disputes).

5.3. Personal narratives

These tasks enable us to obtain long interventions from the participants. The narratives tend to be explanations of past events as researchers ask the participants to look back on their personal life and remember special moments. Labov (1972b) suggests asking about a time when the informants felt in danger, while Tannen (1984) asks them to retell a strange or funny experience. In both cases, the idea is for the informant to feel comfortable and get completely involved in telling the story, arousing feelings and emotions that will make them forget they are being interviewed and elicit more natural speech.

There is also the possibility of getting the participants to write down these experiences instead of explaining them orally in order to reduce anxiety or stress, but this will depend on the type of data you want to obtain. Tannen (1984) suggests some topics that might generate good narratives: explaining their first day at a new school, their first impressions of a foreign country or a different city. Salaberry and Comajoan (2013) suggest letting the informants choose from a range of topics, or showing them different cards or photos that portray emotions. They can then be asked to explain a specific time when they felt particularly happy, sad, angry, etc.

5.4. Interviews

Interviews can be conducted in the classroom by the students themselves, and at the same time can be used as research and educational material for subsequent tasks. These interviews can be structured or semi-structured. The former follow a very specific pattern in which the questions posed to participants are exactly the same, or where the interview conditions are the same to minimize differences between interviews, which will make them comparable. This type of interview can also provide quantitative data, or data that can be better quantified.

In semi-structured interviews the interviewer has more flexibility when it comes to adding questions or asking for clarifications. Generally speaking, they facilitate the collection of personal data, given that the participant feels more comfortable and relaxed, making the interview more of a conversation than a calculated interrogation of questions and answers. These interviews tend to be used to gather qualitative data, usually last a little longer, and allow the interviewers to explore questions in greater depth (see the chapter by Corona, this volume).

6. Questionnaires and surveys

Data can also be collected using questionnaires and surveys which, at the same time, can become part of more extensive interviews. As in interviews and other similar methods, the type of questions we include in questionnaires should make the participants feel comfortable. They should also be posed in a non-intrusive way so participants do not get the feeling we are judging their lifestyle, beliefs about different languages or linguistic behavior. Given that questions about attitudes towards languages and the way people identify themselves linguistically are usually quite sensitive issues, it is advisable to pose them indirectly or include them in more extensive conversations.

In addition to data on attitudes, there are all kinds of other information such as age, educational level, family situation, country of origin, place of residence, school attended and many other additional details that might be relevant when it comes to the data analysis. This can be particularly important in defining the context of the research with a group of speakers or learners.

7. Information to be given to the informants

The issue of protecting participants' private data in research projects is very important, especially when working with children and young people in disadvantaged or socioeconomically complex situations. Provision needs to be made to obtain consent from all the participants and their legal guardians.

This can be done by sending an explanatory letter outlining the objectives of the research project and the type of data that will be collected from the participants. It is also important to explain how the data will be processed and the scope of their public disclosure (see the chapter by Dooly, Moore, & Vallejo, this volume).

8. Other considerations

Many of the possible obstacles when it comes to gathering data can be avoided by running a pilot with the data collection tools you intend to use with a small number of informants before you start the actual data collection process. This will help to quickly identify any unforeseen problems, and it will allow changing any questions or tasks that are unproductive. The test run can be included in the research report as an element that allows drawing conclusions on potential problems with the instruments or data collection methods.

It is important to be aware of the age group you are working with in order to find out what motivates your participants and what might encourage them to talk. It might also be important to put yourself on their level physically to avoid being regarded as an authoritative figure and to contribute to being regarded as another participant instead. In social science studies, we often talk about the paradox of the researcher or observer, which states that when it comes to observing a type of behavior or interaction, the presence of the observer influences the attitude and behavior of whoever is being observed. It is important to be aware of this paradox and address it explicitly when analyzing the data (see Moore & Llompart, this volume; Nussbaum, this volume).

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Recommended reading

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Nussbaum, L., & Unamuno, V. (Eds). (2006). *Usos i competències multilingües entre escolars d'origen immigrant.* Bellaterra: UAB Publication Service.

Websites with resources mentioned

Data collection and learning tasks

'Biographies' material, giving examples of how to conduct narratives: http://biografiesgreip.blogspot.co.uk/

'Language pair' material, featuring various types of tasks: http://parellesling.blogspot.co.uk/

'Living history, life stories' material, in which students have to interview other people as part of a project: http://grupsderecerca.uab.cat/greip/sites/grupsderecerca.uab.cat.greip/files/index_0.html

Material from the project 'Plurilingual, audiovisual and digital competence as a vehicle for constructing knowledge in multicultural and multilingual communities (PADS)', giving examples of role play, amongst other tasks: http://pagines.uab.cat/pads/

'Tasks in pairs' material, featuring tasks for doing as a pair: http://tasquesparelles.blogspot.co.uk/

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