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Krisztina Károly: Research methods in the study of linguistic mediation
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Research methods in the study of linguistic mediation

This paper offers an overview of the research methods applied in the interdisciplinary field of linguistic mediation. It presents the features of primary and secondary research, highlights the difference between theoretical (conceptual) and empirical studies, and outlines the characteristics, basic principles and quality criteria of quantitative, qualitative and mixed-methods research. It provides guidance not only in formulating adequate aims, research questions and hypotheses, but also in writing up the methodology sections of papers. Translation, used in a broad sense to include various forms of linguistic mediation, is viewed as a complex linguistic, cognitive, social and cultural phenomenon. Therefore, its study involves the target language textual product, the text comprehension and production process, its context and participants. The paper thus ends by presenting the four directions of research on linguistic mediation (product-, process-, participant- and context-oriented investigations) and illustrates these through examples of empirical research conducted in the field.

Keywords: translation, quantitative, qualitative, mixed-methods research, quality criteria

1. Introduction

Translation studies, used in the broad sense, encompasses the scientific investigation of all spoken and written forms of linguistic mediation. This field has undergone a dynamic development in the past 50 years, both in its theoretical underpinnings and research methodologies. This paper¹ focuses on the latter. It has been motivated by the fact that the study of linguistic mediation has developed into a highly competitive, interdisciplinary area of research, where scholars have to meet the highest standards in conducting and reporting on empirical research (in journals, at conferences, etc.) (Curry & Lillis, 2004). A significant prerequisite of this challenge, besides working with a sound theoretical framework, is their ability to design and conduct research that meets the highest quality standards methodologically and ethically. This paper is meant to aid novice researchers, or those experimenting with new methods, in identifying the criteria necessary for meeting these requirements. Without attempting to be fully comprehensive, it reviews the most significant features and standards of research methodologies applicable to the interdisciplinary exploration of linguistic mediation. It primarily builds upon the research paradigms of the social sciences and applied linguistics. It enumerates all those criteria of research that are necessary to find answers to questions in a

¹ This paper is an updated and complemented version of my earlier work on the research methods of applied linguistics (Károly, 2002) and translation studies (Károly, 2022a).

systematic manner and to provide answers that are reliable and credible (Hatch & Lazaraton, 1991, p. 1), or, as Dörnyei (2019) put it, to perform a “disciplined inquiry” (p. 15).

My paper is not without precedents. It has been informed by work done in applied linguistics (e.g. Brown, 1988; Creswell, 2009; Dörnyei, 2019; Hatch & Lazaraton, 1991; Holliday, 2002; Larsen-Freeman & Long, 1991; Tashakkori & Teddlie, 2010) and translation studies (e.g. Bell, 1991; Chesterman, 2000; Göpferich, 2010; Krings, 1987; Marco, 2009; Saldanha & O’Brien, 2014; Tirkkonen-Condit, 2002; Williams & Chesterman, 2002). It first explains the difference between primary and secondary research, shows how theoretical and empirical studies differ, and outlines the basic principles and quality criteria of quantitative, qualitative and mixed-methods research. It ends by presenting and illustrating, with examples, the four avenues of research on linguistic mediation, namely product-, process-, participant- and context-oriented investigations.

2. Empirical research: paradigmatic approaches and methods of inquiry

2.1. Research questions, aims, hypotheses

Scientific inquiry may fundamentally be of two kinds: theoretical (dealing with a conceptual problem) or empirical (data-based). Either way, the work of the researcher is inspired by questions that have disciplinary significance, that is, by issues that are interesting or relevant for other researchers too. These **research questions** may originate from various sources: one’s own professional interest, “fashionable” topics, other researchers’ completed or incomplete studies, or they may also be inspired by themes that deserve to be investigated again. When formulating the research questions, three criteria are especially important, as the success of the undertaking is assessed based on the extent to which the researcher manages to answer them. Therefore, research questions need to be:

- conceptually and paradigmatically adequate (aligned with the theoretical and methodological underpinnings of the study);
- sufficiently concise (clear and unambiguous, containing properly defined and used words that all “count”): unnecessary or misused words may mislead readers and produce false expectations, preventing the text from meeting reader expectations (e.g. will not be recommended for publication);
- goal-oriented (harmonise with the aims of the research).

A piece of research may either aim at gathering new information and thus create new knowledge, or reinforce or contradict already existing knowledge. However, it is important to note that the methods of inquiry are determined by the aim of the research and not vice versa. Therefore, the **statement of the aim**, similarly to that of the research question, has to be not only conceptually and paradigmatically adequate, but also sufficiently concise. It is best if it takes the form of a strong, explicit statement that covers, like an “umbrella”, all of the aspects of inquiry and information specified in the research question.

Related to particular research questions, based on previous research or the experiences of the researcher, it is possible to formulate preliminary assumptions, namely, **hypotheses**. A hypothesis is a statement that can be tested about the connection of two or more concepts or phenomena (Matthews & Ross, 2010, p. 58). So, it is testable or measurable phenomena that we formulate hypotheses about (e.g. in quantitative investigations). In other cases (e.g. in qualitative research aiming to understand phenomena in depth), we need to be careful about formulating hypotheses, because they may delimit the scope of our exploration. They might influence the thinking of the researcher to such an extent that they prevent them from noticing certain aspects of the phenomenon under scrutiny. In relation to the study of translation, Chesterman (2007a, pp. 11–12) distinguished four types of hypotheses:

- (1) descriptive hypotheses, focusing on the characteristics or the classification of features: “all Xs have feature F / belong to class Y” (p. 4) (e.g. corpus studies on translation universals);
- (2) explanatory hypotheses, referring to cause and effect relationships: “X is caused by / made possible by Y; Y explains X” (p. 4) (e.g. individual case studies showing that given features appear because of certain factors);
- (3) predictive hypotheses, forecasting the occurrence of something under particular circumstances: “in conditions ABC, X will (tend to) occur” (p. 4) (e.g. experimental studies indicating that if something happens, translation quality will become better or worse);
- (4) interpretive hypotheses, showing that a particular concept or phenomenon can be interpreted as something else that is more familiar, already known, or simpler to understand: “X can be (usefully) interpreted as Y” (p. 4) (e.g. translation can be interpreted as creative production, i.e. art, rather than text reproduction).

The first three are empirical hypotheses, so they are tested against empirical evidence. Predictive hypotheses test particular explanatory ones (pp. 4–5). The fourth hypothesis, on the other hand, appears mostly in theoretical research, where the aim is not to test it against empirical data to see whether the data would justify it or not, but to test it “against pragmatic criteria (are they conceptually useful, insightful?)” (p. 4). However, in the latter case, explicit

statements of hypotheses are not common. Furthermore, quantitative studies aiming to test hypotheses, using statistical methods, generally start out from the assumption that between the two (or more) variables investigated there is *no* relationship (Saldanha & O'Brien, 2014, p. 19): they formulate a negative hypothesis (X and Y are *not* related), which is called a null hypothesis (H₀).

2.2. Research paradigms

In empirical research, new/original data is collected about a phenomenon, based on which the researcher can answer the research questions. Empirical research is thus data-based. The data gathered may be:

- linguistic (e.g. interpreted discourse);
- quantitative (based on numbers that are quantifiable; e.g. how many translation and interpreting MA graduates work as professional translators/interpreters), or;
- qualitative (based on “the words” of people, e.g. interviews).

The type of data influences the methods of data collection and analysis. Consequently, in empirical research, we distinguish between three approaches, also referred to as research paradigms, namely **quantitative, qualitative and mixed-methods research** (Figure 1), where the latter makes use of the potential of the previous two paradigms² (Creswell, 2009; Tashakkori & Teddlie, 2010). So, we may argue that in research everything is connected with everything else. Therefore, to plan a successful investigation, it is important to make sure that the statement of the aim, the research question, the instrument used to elicit data to answer the question and the method applied to analyse data are all neatly harmonised.

2.3. Types of research: conceptual issues, distinctive features

When thinking about research in a broad sense, we need to bear in mind that there is a difference between research whose aim is to generate original, new findings or create new theories, and research that works with or synthesises already existing findings or theories. Along these lines, Brown (1988) distinguishes between primary and secondary research. **Primary research** is based on analysing data directly to generate new results (e.g. case studies, statistical studies). **Secondary research**, on the other hand, synthesises the findings and theories of research conducted by others, using carefully selected criteria (e.g. the seminar paper, annotated bibliography, review article genres).

² There is no unanimous consensus in the literature regarding the extent to which the notion of “mixed-methods research” is identical with “multimethods research” and other similar formulations (e.g. multitrait-multimethod research, mixed model studies). Some use them as synonyms (Creswell, 2009; Dörnyei, 2019), others make a distinction between the two (Király et al., 2004, p. 95).

However, secondary research is not to be confused with the embedded, **literature review** section of research papers. Literature review sections do not constitute a separate genre, but form *part of* research genres to present the theoretical and/or empirical background of the study and demonstrate the research gap the study fills. According to Efrat Efron and Ravid's (2019) definition, a literature review is:

a systematic examination of the scholarly literature about one's topic. It critically analyzes, evaluates, and synthesizes research findings, theories, and practices by scholars and researchers that are related to an area of focus. In reviewing the literature, the writer should present a comprehensive, critical, and accurate understanding of the current state of knowledge; compare different research studies and theories; reveal gaps in current literature; and indicate what needs to be done to advance what is already known about the topic of choice. (p. 2)

Secondary research also needs to be distinguished from theoretical research. The purpose of **theoretical research** is, as its name implies, to carry out an in-depth investigation and/or a critical analysis of one or more theories or conceptual issues, based on the literature, in order to take a position against or in favour of one of them, or to propose a new theory that the author has developed. Consequently, from a rhetorical perspective, theoretical studies are argumentative, problem-solving texts (Swales & Feak, 1994). They have four main objectives (Lester & Lester, 2015, p. 308). They:

- identify or hypothesise a problem with historical implications for the scientific community;
- describe the setting up and historical development of the hypothesis;
- systematically analyse previous sources that have investigated the problem;
- present and evaluate the supported or newly proposed theory.

The organisation of theoretical papers is topic-dependent, but they have typical structural constituents: Introduction, Literature review, Analysis (aimed at solving the problem), Conclusions, References, Appendices (Swales & Feak, 1994). Depending on the topic, the titles of the sections may differ from these³. Note here that papers on translation theory also tend to contain linguistic "data". However, unlike in empirical work, these merely serve as examples to illustrate a claim or argument, and not as the empirical basis for their formulation.

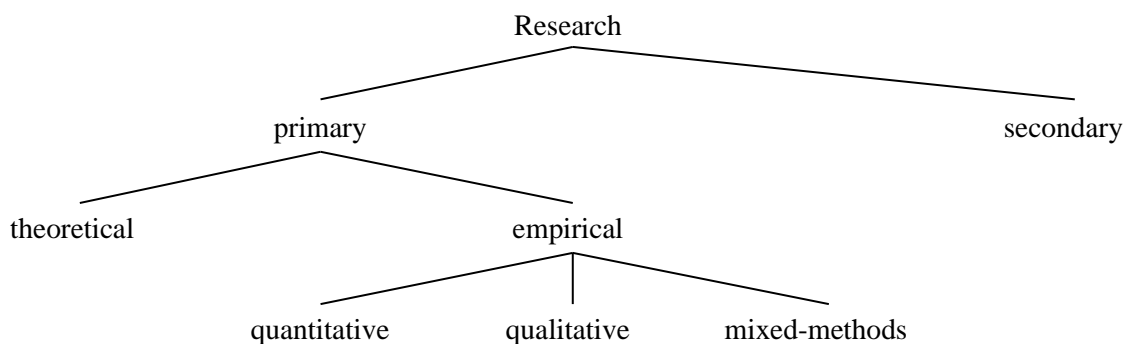
³ See, for instance, Glynn's (2021) theoretical study entitled *Outline of a theory of non-translation*.

Empirical studies fulfil the following four aims (Lester & Lester, 2015, p.308), they:

- highlight a problem bearing relevance for the scientific community, or formulate hypotheses, and propose research to investigate these;
- present the research methods;
- describe the findings;
- discuss and interpret the implications of the results.

Empirical research papers are structured according to these focuses and are typically organised into the following sections: Introduction, Theoretical background (or Review of the literature), Methods, Results and discussion, Conclusions (or Summary), References and Appendices. To summarise, the different types of research and their relationship to each other can be schematically illustrated as shown in Figure 1.

Figure 1. Types of scientific research



3. Traditional quality standards of empirical research

The two traditional quality standards of empirical research are reliability and validity. Although these were originally conceived in relation to quantitative research, in a certain sense and with some refinements, they are applicable to both major paradigms and consequently to mixed-methods studies too (see section 4).

3.1. Reliability

The reliability of research indicates the extent to which the measuring instruments and procedures produce the same results in different circumstances with a given population (Dörnyei, 2019, p. 50). Reliability, i.e. consistency and transparency, should be sought in both data collection and analysis. One way to do so is by training those involved in data collection/analysis to have a consistent understanding of terminology, to apply data collection/analysis

criteria consistently and with sufficient experience, so that they deal with the problems that arise during analysis/coding in a similar way.

In the case of observation, for instance, when using an observation sheet (e.g. to observe an interpreting situation), it is advisable to bear in mind the following: involve as few data collectors as possible to ensure reliable data collection and avoid errors; clarify the meaning of the criteria on the observation sheet; test the sheet beforehand so that by the time it is used for data collection the researchers have sufficient experience in working with it and have a chance to agree in advance on the way in which they deal with any potential problems that may arise during the process.

A similar approach is needed for data analysis. In the case of corpus analysis, the process needs to be complemented by involving a co-analyst. To ensure reliability of analysis, at least two people analyse the texts independently, according to the criteria specified, and then they compare their results (= inter-coder reliability checking). In case of disagreement in coding, they try to reach an agreement, or ask a third analyst to settle the dispute. If the analysis is conducted on a large corpus, it is enough for the second analyst to analyse only part of it and then compare the results with those of the researcher (first analyst) obtained for the same part. If their results are the same, no further checking is needed. If it is not possible to work with a second analyst, the researcher may carry out a control analysis by reanalysing the corpus or part of it after a certain period of time and then comparing the outcomes of the control analysis with the results of the first analysis (= intra-coder reliability checking).

Reliability of coding can also be measured using statistical methods. In this case, a so-called reliability coefficient is calculated (e.g. Pearson's correlation coefficient). The reliability coefficient should be interpreted similarly to correlation coefficients (its maximum value is +1.0, indicating complete agreement, perfect reliability). If we take the example above, the reliability coefficient is calculated based on the correlation between the results obtained by the first and the second analyst. The acceptable value depends on the discourse variables under scrutiny: (1) how automatic/objective the identification of the variable is (e.g. lexical repetition, reference) or (2) how much interpretation is needed for its identification (e.g. logical relations, topical progression in discourse). The former is expected to be close to the maximum value (between .90 and 1.0), while in the case of the latter, a slightly lower level of agreement (e.g. .80) is also acceptable. The procedure is illustrated, for instance, in Klaudy and Károly's (2000, p. 148) research, which investigated the text-organising function of lexical repetition in the translations of trained translators and students of translation and interpreting.

The quality of reliability is also referred to in the literature as **replicability** or **reproducibility**. These are particularly useful terms for research writing, as reliability should also be sought in the dissemination of results. A study fulfils the condition of replicability if it presents all the information about the research

in so much detail as is necessary to make it transparent and therefore reproducible (by someone else). Here, we should not only think about information concerning research methodology (research aims, questions, context, participants, instruments⁴, data collection and analysis, etc.), but also about the theoretical background of the research (what theory it is based on, what is its theoretical stance), and its terminological basis (what key terms it uses and how it defines them). Silverman (2006, p. 282) calls this condition “**theoretical transparency**”. In order to ensure transparency and reproducibility, in the case of textual or corpus data, it is advisable to also include a short sample analysis in the methodology section of the study, to demonstrate the method and steps of analysis (Károly, 2010).

3.2. Validity

There are several types and forms of validity, depending on the methodological paradigm of the study (to be discussed in section 4). Here, I will present the two that are relevant for all kinds of empirical research, namely internal and external validity. According to Hatch and Lazaraton (1991), **internal validity** refers to the interpretation of research findings within the context of the study. In qualitative research, this type of validity is called **credibility** (see section 4.2). To this end, particular attention should be paid to the following:

- (1) the selection of the participants (e.g. their characteristics, relevance, potential for attrition);
- (2) the natural maturation of the participants (e.g. in longitudinal studies, participants may change over time, which may affect their performance);
- (3) other influencing events or factors (e.g. in a case study on the development of translation skills as a result of a translation assignment);
- (4) the design of measuring instruments (to ensure their validity/credibility and reliability);
- (5) task instructions (precise formulation, piloting/pre-testing);
- (6) the creation of an appropriate database (e.g. how many items in a tool measure a variable, or the frequency of a variable in a text);
- (7) the impact of measurement (e.g. pre-testing may change the participant’s performance when the actual measurement is taken).

Hatch and Lazaraton (1991) use **external validity** to refer to the interpretation of research findings and their generalisability *beyond* the scope of the investigation. Internal validity is a necessary condition for external validity. In quantitative research, generalisability is ensured by the appropriate selection of participants. It is important to have a representative sample, to select them

⁴ To ensure the replicability of the study, it is useful to include the measuring instrument (the questionnaire, the interview questions, etc.) or, in the case of a corpus-based investigation, a few sample texts taken from the corpus/corpora in the appendix of the paper for illustration.

randomly, and to be descriptive and inferential in the interpretation of statistical analyses, since it is on the basis of this description that the reader is able to interpret the findings. In qualitative research, in the absence of a representative sample, external validity can only be achieved if the context and participants are selected according to predefined criteria and the analysis is exhaustive. The aim of such research is not to generalise from the results, but to make them applicable/transferrable to other contexts. For this reason, the external validity of qualitative research is referred to as **transferability** (see section 4.2).

4. Quantitative, qualitative and mixed-methods research

Relating to the quality standards of research, there is no unanimous consensus in the literature on what is expected of the different paradigms.⁵ As the methodology of research in applied linguistics and translation studies has developed greatly over the past few decades, these expectations have also become more nuanced and adapted to the distinct methodological paradigms. I will therefore concentrate below on those standards where there is relative agreement. Within each paradigm, I will review their typical methods (e.g. survey, ethnography) and tools (e.g. questionnaire, interview). To highlight their distinctive features, Table 1 summarises the most significant characteristics of the quantitative and the qualitative research paradigms.

Table 1. The distinctive features of quantitative and qualitative research (partly based on Larsen-Freeman & Long (1991) and Lincoln & Guba (1985))

	Quantitative research	Qualitative research
Methods, data:	quantitative;	qualitative;
Aim:	explore the factual aspects of social phenomena;	understand human behaviour;
Investigation:	in-depth, controlled measurement;	natural, uncontrolled observation;
Nature:	objective (based on reality);	subjective (based on the perception of the researcher);
Perspective:	detached from data, ‘outsider’ perspective;	close to data, ‘insider’ perspective;
Basis:	evidence-based, starting out from hypothesis	discovery-oriented, descriptive stance
Hypothesis:	aims to test hypothesis;	aims to generate hypothesis;
Orientation:	outcome-oriented;	process-oriented;
Data type:	factual and reproducible data;	rich, deep data;
Conclusions:	generalisable, because it is based on a large number of participants / great amount of data (representative sampling);	no generalisable conclusions, but transferability, because it is case-based;
Approach:	analytical.	holistic.

⁵ For a detailed analysis of the different research methods, see Dörnyei (2019, pp.25-30).

The separation of the two paradigms as shown in Table 1 may appear too categorical and simplistic, but the comparison illustrates the differences in approach. Nevertheless, research experience has shown that it is more useful to think of the qualitative–quantitative dichotomy as a continuum (Table 2) rather than as two extremes. The natural and useful combination of particular elements of the two have given rise to the so-called mixed-method approaches that are becoming increasingly common. When choosing research methods, we should not forget that no method is good for everything; each has its advantages and disadvantages. It is therefore important to choose the method that is best suited to the research aims and questions.

Table 2. Continuum of research methods
(based on Larsen-Freeman & Long (1991) and Mahboob et al. (2016))

Qualitative research ←						→ Quantitative research					
Introspection	Participant observation	Non-participant observation	Ethnography	Case study	Discourse analysis	Practitioner research	Focused description	Pre-experiment	Quasi-experiment	(True) experiment	Survey research

At the leftmost end of the qualitative–quantitative continuum appears the **introspection** method of the qualitative paradigm. It originates from psychological research and means that the researcher tries to gain insights into the mental processes that accompany the translation or interpreting task (e.g. Krings, 1987; Tirkkonen-Condit & Jääskeläinen, 2000). A close variant of introspection is **retrospection**, when the researcher explores the mental processes taking place during the translation/interpreting task *afterwards*, by “looking back” at the task.

A dominantly qualitative approach characterises the various types of **observations** too. Observation can take place with or without the participation of the researcher. If it is done with the participation of the researcher (participant observation), he/she is involved in the activity under scrutiny. It is not based on a specific hypothesis, but on what the researcher observes or experiences, therefore its aim is to generate hypotheses. This method is characterised by prolonged observation and a small number of participants. As the researcher is also involved in the activity, the data are recorded, for example, in the form of post hoc note-taking or a diary (Károly, 2002). If the observation is conducted without the researcher’s participation (non-participant observation), he/she does not take part in the activity, but merely observes it.

Moving towards the middle of the continuum, the methods of ethnography, case study, discourse analysis and practitioner research appear, and are closely related to each other in nature. **Ethnography** is a direct, holistic investigation of a culture's/community's behaviour in its own social and communicative context ("field" research; Hubscher-Davidson, 2011; Koskinen, 2008, p. 37). It reveals social reality (the identity of community members, their characteristic patterns of text construction, their wider social context) through the perspective of its participants (Mahboob et al., 2016, p. 54; see section 5.1).

A **case study** explores *the* phenomenon (= *the* case: e.g. a person, a text) in its natural, real-life context (e.g. through observation, interview; see section 5.4). Case study and ethnography are closely related, but their traditions differ. Traditionally, ethnography meant the holistic study of a culture/community with the aim of revealing the characteristics and wider social context of everyday text production (Koskinen, 2008, p. 37). It also involved the direct observation of writing and human behaviour in a given cultural "field" to interpret social reality from the perspective of those who live in that culture. Nowadays, this approach seems to be changing (Saldanha & O'Brien, 2014, pp. 208–209): there is less emphasis on participant observation, and more attention paid to studying written documents and conducting interviews, or just to working with multiple data sources and data analysis techniques. In this way, ethnography has become more of a methodological approach than a research method. It has a lot in common with case studies, because both take a holistic approach, examining human behaviour in its own social context and drawing on rich data collected in authentic settings. Their difference lies in the fact that in ethnographic studies, the participation and lived experience of the researcher in a given context still plays a crucial role, whereas in a case study, reliability, validity and objectivity are the most important requirements.

Discourse analysis reveals the structural and functional characteristics of natural texts or interactions in a given social or institutional context (Mahboob et al., 2016, p. 51; see section 5.1). Using the theories and analytical methods of the discipline (also called discourse analysis), it investigates phenomena above the sentence level, such as topical progression or ideology in text, or turn-taking mechanisms in spontaneous dialogues.

The social and institutional context also plays an important role in **practitioner research**. Practitioner research investigates the person's own institutional, professional environment (work) in order to understand it more thoroughly and reflect critically on it, to make changes (e.g. improvements) where necessary (Mahboob et al., 2016, p. 51; see section 5.3). Here, therefore, the researcher is both the researcher and the participant, not an "external" researcher or "outsider". Practitioner research has much in common with case studies and ethnographies, and thus in this kind of research, a combination of both quantitative and qualitative data collection and analysis procedures can be observed (Mahboob et al., 2016, pp. 51–52; Zeichner & Noffke, 2010).

Moving further along the quantitative direction of the continuum, the method of **focused description** can be found. In focused description, a specific phenomenon/variable is observed (e.g. the impact of the mother tongue on translation). It aims to classify and organise the data to identify relationships and correlations (e.g. with an observation sheet). Such research can be conducted with a large number of participants and is thus typically based on quantitative analyses.

In the various types of experiments (true, quasi- and pre-experiment), quantitative investigations dominate. The aim of a **true experiment** is to explore a cause-and-effect relationship between one or more independent variables and one or more dependent variables (e.g. in a focused intervention designed to develop the use of post-editing strategies, investigate the effect of the intervention based on readers' perceptions of the post-edited translations) (Mahboob, 2016, p. 46). In such studies, it is essential to have a large number of participants to be able to draw generalisable conclusions from the results. True experiments, however, are rare, because they have to fulfil three conditions:

- (1) all but one factor is to be held constant: one independent variable is manipulated, the others are controlled (ensuring that they remain constant) and the dependent variable is observed to see if it changes or not;
- (2) experimental and control groups are to be used: they only differ in that the former has the intervention, the latter does not, so that the difference between them may be claimed to be caused by the intervention;
- (3) group assignment should be randomised: participants are to be randomly assigned to groups to ensure comparability.

If only the first two conditions are met, we can only speak of a **quasi-experiment**. It is not a true experiment, because the allocation of participants to groups is not random. A typical way of collecting data in such cases can be pre- and post-intervention observation. If, however, neither of the latter two conditions is met (no control group and no random allocation of participants to groups), the study is called a **pre-experiment**. A pre-experiment is intended to predict or explain human behaviour, but due to its methodological limitations, it cannot establish a cause and effect relationship between variables; thus it is more suitable for generating hypotheses. For example, a typical form of data collection is using a pre- and a post-test.

The most common and dominantly quantitative type of method belonging to the quantitative paradigm is **survey research**. A survey is a systematic, large-sample (representative) collection of information (Mahboob et al., 2016, p. 49). Its typical data collection instrument is the questionnaire. In the field of translation studies, it is used to analyse strategy use or attitudes.

4.1. The quality criteria of quantitative research methods

Quantitative research, as its name also suggests, is quantitative in nature: it uses statistical analysis to take measurements and discover patterns. Its advantage is that it is systematic, precise, rigorously controlled, based on accurate measurement, and provides reliable and reproducible data and results, which can be used to draw generalisable conclusions (Dörnyei, 2019, p. 34). Its typical data collection tools include questionnaires and corpora, and in data analysis, it generally uses statistical methods. The disadvantage of quantitative research is, by nature, that it shows the typical, general/average characteristics of groups and corpora, which does not reveal individual or stereotypical features, the depth of phenomena, or the processes, causes, etc. behind them. The following 14 **methodological principles** (partly based on Dörnyei's (2019) and Mahboob et al.'s (2016) work) need to be considered when planning quantitative research:

- (1) the focus of research is on the common characteristics of groups of people/texts, and not on individual/stereotypical features (work is done with variables and not cases);
- (2) to ensure the replicability of the research, the research process is presented in detail (including the criteria of selecting participants, random or purposive sampling, instrument design, methods of data analysis, etc.);
- (3) research questions and hypotheses are precisely formulated to make the subject and purpose of the research clear and avoid flaws of interpretation;
- (4) measurement reliability⁶ and validity⁷ are checked;
- (5) to evaluate the results correctly and to ensure replicability, the measuring instruments and the intervention are described in detail;
- (6) to maximise objectivity, standardised procedures are used for both participants/objects of inquiry and investigators;
- (7) numerical variables are explicitly specified;
- (8) statistical terminology is used professionally;
- (9) to enable the reader to evaluate the results, descriptive statistics (e.g. mean, standard deviation, sample size) are provided;
- (10) the interpretation of statistical significance is included;
- (11) results are presented visually, in simple and clear tables, graphs, charts, diagrams for illustration (with their explanations appearing in the text);
- (12) results are communicated and interpreted clearly, and alternative interpretations are also explored;
- (13) generalisable conclusions for a given population are drawn with care so as not to overstep the boundaries of the research;
- (14) the research method is evaluated to inform the methodological planning of further research on the topic.

⁶ e.g. by testing agreement between independent assessors using correlation analysis.

⁷ e.g. by piloting instruments using statistics.

Quantitative research has its dangers: one is that we may “get lost” in the calculations and not get meaningful, interpretable results; the other is that we overgeneralise because of the large database/corpus. Neither of these is a desired practice and thus need to be avoided. Attention has to be paid to individual differences among participants (Dörnyei, 2005), to stereotypical features (e.g. of certain texts, genres or people), and to the contextualisation and interpretation of figures. In the dissemination of the results, it needs to be made clear what exactly the numbers refer to, what values they may have and, if necessary, to provide readers with a basis for comparison.

Quantitative research has the longest history of **quality criteria** and is thus perhaps the least criticised or controversial type of research approach from the point of view of the methodological principles that define it. It has a considerable overlap with the quality standards I have already mentioned in relation to empirical research in general (reliability and validity); below, therefore, I will discuss these in the context of quantitative research. Based on an analysis of the relevant literature, Dörnyei (2019, pp. 50–54) has identified three criteria that quantitative research must meet: reliability, measurement validity and research validity.

The degree of **reliability** depends on the extent to which the measurement tools and procedures used in the research yield consistent results across different conditions within a population (Dörnyei, 2019, p. 50). The degree of reliability can be measured by statistical methods (e.g. Bachman, 2004; or for the use of Pearson’s correlation in translation analysis, see Károly, 2010), but not all research studies apply these.

Measurement validity exists if the interpretation of the results of the various test results or other measurement/evaluation procedures used in the research makes sense and is correct (Dörnyei, 2019, p. 50). Measurement validity is based on three pillars:

- (1) the construct validity of the phenomenon measured, which shows the extent to which the test results are consistent with the theory of which the construct is a part;
- (2) criterion validity, which indicates the extent to which the testing procedure correlates with other measuring instruments;
- (3) content validity, which is the expert judgement of the testing method.

It is important to note that validity does not relate to the measuring instrument or the outcomes of measurement, but to the interpretation of the results gained for the given population or texts.

Research validity, as its name suggests, is a broader concept than measurement validity because it applies to the whole of the research. Research validity depends both on the extent to which findings (and their interpretations) make sense, and on the extent to which they can be generalised beyond the

framework of the research. This is the same quality as the ones I referred to earlier in the discussion of the standards of empirical research as internal and external validity, so its risk factors are the same too (see section 2.2).

4.2. The quality criteria of qualitative research methods

Qualitative research allows for the identification, exploration and deeper understanding of complex phenomena that have not been studied before. The qualitative researcher takes an essentially constructivist approach. This perspective enables the researcher to explore and interpret reality through their own “filter”, based on data and following an inductive logic (moving from the specific to the general). The qualitative researcher does not believe that reality is independent of time and context, and that cause and effect are always separable (Lincoln & Guba, 1985). Thus, the disadvantages of qualitative research lie in its advantages: because of its open-minded and detailed analyses, involving the researcher’s subjective/intuitive interpretation, qualitative research projects typically work with a small number of participants and their outcomes can only be applied to the given participants and context (and cannot be generalised).

Its data collection methods include structured or semi-structured interviews, diaries, note-taking, document analysis, the creation of text databases (corpora), the use of images, audio or video recordings. For data analysis, whatever is possible is transformed into textual/verbal data (e.g. interview transcripts are prepared) since, as pointed out in section 2.2, analysis is based on “the words” of people. Due to its exploratory nature, it is more difficult to describe the characteristics of the qualitative research paradigm than those of quantitative research. Nevertheless, there are some **guidelines** (following Dörnyei, 2019; Mahboob et al., 2016) that are helpful when planning this type of research:

- (1) allow the research methods to be modified or supplemented as the research progresses, so that the methodological apparatus can “emerge” during the process – this is why the literature refers to it as “*emergent*” research design; the right approach is if the researcher remains open and flexible throughout to allow for any phenomena to arise (related to instruments, participants, texts, research questions, etc.);
- (2) work with only a few carefully selected participants or texts;
- (3) build on the insights, feelings, perceptions, experiences of the research participants, that is, on the way *they* interpret behaviours, events, situations, texts, etc. (to elicit these, formulations such as *Tell me how you see...; Tell me what you were thinking when you were editing the translation...* may be particularly useful);

- (4) collect data in the natural environment of the respondents, with prolonged and persistent observation over time and triangulation⁸ (i.e. work with multi-perspective analysis, simultaneously using e.g. observation, interview and particular documentation methods);
- (5) make data abundant and information-rich to allow for a sufficiently in-depth, detailed analysis covering all relevant aspects;
- (6) base data analysis on the interpretation of the researcher;
- (7) conduct cyclical data analysis: data collection → data analysis → another phase of data collection, if necessary → hypothesis generation based on the results obtained → validation of hypothesis based on new data;
- (8) provide thick descriptions of all the components of the research (theoretical basis, research questions, role of the researcher, context, participants, research procedures, results, etc.);
- (9) take a holistic approach: seek to get to know and understand the phenomenon *as a whole*;
- (10) draw conclusions based on an in-depth analysis of the situation and look for connections with other relevant theories.

The **quality criteria** of qualitative research are harder to define than those for quantitative research. Since we see everything through the eyes of the researcher who works with a small number of participants or texts, the findings seem more subjective and particularistic. Because of its exploratory, discovery-oriented nature, it may appear to be less systematically planned and thus less scientific than quantitative research. Nevertheless, research practice over the past decades has made it possible to formulate criteria by which scientific rigour and quality can be guaranteed in qualitative studies. These criteria are referred to as reliability and trustworthiness. The names of these standards overlap with some others presented earlier, but their use in this context is adapted to the interpretative nature of qualitative research.

In qualitative research, the degree of **reliability** depends on the extent to which the phenomena identified in data analysis are consistently classified by analysts (by other or by the same analyst) into the same category as by the first analyst (Silverman, 2005, p. 224). Consistency is therefore crucial in analysis, be it coding texts or interview data. Reliability in such analyses can also be checked by co-coding or by recoding part of the data and then checking whether the results from the two coding procedures match.

⁸ The term has been borrowed from navigation and surveying; triangulation is when the position of an unknown point is determined by measuring through two known points (Dörnyei, 2019, p.43).

Trustworthiness is the qualitative counterpart of the validity criterion of quantitative research. According to Lincoln and Guba (1985), four conditions must be present in research for it to be trustworthy:

- (1) credibility: the research must have a truth value (= internal validity in quantitative research);
- (2) transferability: the results must be applicable in other contexts (= external validity);
- (3) dependability: the analysis and its results should be consistent (= reliability);
- (4) confirmability: the results should be unbiased (= objectivity).

4.3. The quality criteria of mixed-methods research

Mixed-methods research means the combination and integration of quantitative and qualitative data in data collection and analysis, approaches, concepts and terminology in a single research project (Dörnyei, 2019, p. 44, p. 163; Johnson & Onwuegbuzie, 2004, p. 17). The researcher takes a pragmatic approach to the object of study and works from the data collected, using both induction (identifying patterns, forming hypotheses and theories), deduction (testing hypotheses and theories: confirming or disproving them) and abduction (finding and applying the best explanations that lead to understanding the results) (Johnson & Onwuegbuzie, 2004, p. 17).

The positive research experience gained from triangulation has played an important role in the development and spread of mixed-methods research. Although triangulation was first applied within the qualitative paradigm, it has soon become apparent that the limitations and weaknesses of some methods can be overcome by the advantages of others, thus increasing the internal and external validity, or generalisability of the research (Creswell, 2009). For example, the lack of representativeness resulting from the context dependence and small number of cases in qualitative studies can be remedied by selecting the participant (or text) of a qualitative study on the basis of the results of a preliminary survey of a representative sample (e.g. Rátkainé Jablonkai (2010, p. 138) used a large sample survey to select the EU text genres that formed the bases of her corpus building criteria). A mixed-methods approach is also beneficial for understanding complex phenomena: for example, in the study of translational text production, statistical analyses can be used to identify typical phenomena in a corpus, and then an in-depth qualitative analysis can be conducted to reveal the stereotypical features of the phenomena (e.g. Götz's 2019 study examined in detail the translation of "*vajon*" (lit.: "*I wonder*") patterns identified through quantitative corpus analysis).

Dörnyei (2019, pp.164-166) considers the combination of different kinds of methods for three reasons: (1) we can better understand complex or multi-level phenomena by getting a more comprehensive, complete picture of them; (2)

triangulation can validate and confirm research findings; (3) our work may be of wider interest, as single-paradigm research may receive less attention or credibility from those who work with a different paradigm. Further advantages and disadvantages of mixed-methods research may be summarised as shown in Table 3 (based on Creswell & Plano Clark, 2011; Johnson & Onwuenbuze, 2004, p.21).

Table 3. Main advantages and disadvantages of mixed-methods research

Mixed-methods research	
Advantages	Disadvantages
<ul style="list-style-type: none"> • eliminates the limited horizons of single-paradigm research (the limitations of one paradigm is compensated by the advantages of the other); • numerical results are supplemented with verbal data, narratives, pictures (or vice versa); • suitable for building and testing Grounded Theory⁹; • answers a range of research questions; • the results obtained by different methods confirm and validate each other, thus providing a better basis for conclusions; • contributes to the generalisability of results. 	<ul style="list-style-type: none"> • due to its complex nature, it may be difficult to implement if the researcher works alone; • can be more costly and time-consuming than single-paradigm research; • requires a deep understanding of a number of methods and their possible combinations; • not all of its aspects are equally well developed yet (e.g. problems arising from the combination of paradigms; methods of analysing quantitative data qualitatively; strategies of dealing with and interpreting conflicting results).

As the lists in Table 3 suggest, the paradigms cannot be combined in any way; there are some basic **principles** to follow to be able to combine them adequately. There is abundant literature on describing, categorising the possible combinations of methods and examples illustrating their uses (e.g. Creswell, 2009; Creswell & Plano Clark, 2011; Dörnyei, 2019; Király et al., 2014; Tashakkori & Teddlie, 2010), so I will not discuss these in detail here. Instead, I will briefly present two sources, Creswell and Plano Clark's (2011) and Dörnyei's (2019) taxonomies of design patterns, which reflect the structural and the pragmatic nature of the different approaches and are also used in language mediation research.

Creswell and Plano Clark (2011) distinguish six typical patterns of design from a **structural point of view**:

- (1) concurrent convergent or parallel design: quantitative and qualitative data are collected and analysed simultaneously, and the results are compared and combined to produce an interpretation;
- (2) explanatory sequential design: first quantitative, then qualitative data are collected and analysed, and this is followed by the interpretation of the results (the quantitative results are explained by the qualitative results);

⁹ For more on this, see Sallay and Martos's (2018) analysis.

- (3) exploratory sequential design: first a qualitative, then a quantitative research phase is designed (e.g. a questionnaire designed based on the outcomes of interviews), which is followed by the interpretation of findings;
- (4) embedded/nested design: first either quantitative or qualitative research is conducted, which is complemented by other methods of data collection and analysis, the results of which are added to the results of the original methodology;
- (5) transformative design: methods are used within a transformative theoretical framework that serves the needs of a particular population and bring about some change;
- (6) multiphase design: longitudinal, overlapping and simultaneous qualitative and quantitative research phases are designed within a larger (comprehensive) research project.

Dörnyei (2019, pp. 170–173) and Johnson and Onwuegbuzie (2004, pp. 21–22) propose a taxonomy of design types that approaches them from a **pragmatic perspective**, showcasing the possible combinations of methods from the point of view of the instruments they apply (the type and the order of the combined paradigms are indicated in brackets):

- (1) questionnaire survey followed by an interview or retrospection (quantitative → qualitative; as the explanatory sequential structure above in Creswell and Plano Clark's (2011) taxonomy);
- (2) questionnaire survey based on interview data (qualitative → quantitative);
- (3) interview study followed by a questionnaire survey (qualitative → quantitative);
- (4) interview study based on the results of a questionnaire survey (quantitative → qualitative);
- (5) parallel qualitative and quantitative studies (qualitative/qualitative + quantitative/quantitative);
- (6) experiment(s) and interview(s) conducted simultaneously (quantitative + qualitative);
- (7) longitudinal research with mixed-methods elements (quantitative + qualitative);
- (8) combination of self-report (participants' own narratives) and observational data (qualitative + quantitative).

Since mixed-methods research combines qualitative and quantitative methods, its reliability and validity depend on the qualities of its constituent methods. Mixed-methods research is therefore also subject to the quality criteria described above. Tashakkori and Teddlie (2010), however, add a further criterion related to the internal validity of mixed-methods research, namely “**design validity**”,

which depends on the extent to which the legitimacy of using methods pertaining to different research paradigms in the light of the purpose(s) of the research is justified. The criterion of design validity is met if the researcher justifies why and how the methods are combined, and demonstrates that the combination of methods results in a higher degree of validity in the research than opting for the use of a single paradigm.

5. Research trends in the study of linguistic mediation

In my earlier work (Károly 2007, 2017, 2022b, 2022c), I argued that **translation**, similarly to original discourse production, **is a communicative event¹⁰ and a social practice¹¹**. Consequently, it is a complex linguistic, cognitive, social and cultural phenomenon that needs to be explored both as product and process. Thus, the research methodological apparatus of the study of language mediation does not only explore and describe the features of the target language textual product, but is also intended to enable an understanding of the process of text creation and interpretation, the participants of the processes and the social-cultural context.

Consequently, empirical research in the area forms four main trends¹²: (1) product-oriented research on translation/interpreting texts; (2) process-oriented research on the translation/interpreting process; (3) participant-oriented research on those commissioning, producing, receiving, teaching/training, learning translation/interpreting; (4) context-oriented research on social, cultural, ideological, institutional, etc. contexts and circumstances. This of course does not mean that this is the only sensible way of classifying research in the field; other groupings would also be possible, for instance, in line with the research methodologies presented in the previous sections (e.g. categorising by research paradigm, data types, measuring instruments, types of hypotheses). My choice fell on the four orientations listed above, since this is the classification that best fits, from a theoretical perspective, the objects/subjects of inquiry in language mediation. Below I will review the most frequent methods applied by different research trends and illustrate their use by examples from published research.

5.1. Product-oriented research

The object of inquiry in product-oriented research is primarily the target language text produced as a result of translation (broadly understood), but it can also include other translation-related discourses (paratexts), such as translators' prefaces or transcripts of interviews conducted in the context of translation (Saldanha & O'Brien, 2014, p. 51). It focuses, similarly to discourse analysis and text linguistics, on exploring and understanding the structural and functional

¹⁰ For more on this, see de Beaugrande (1980, 1997), Fawcett (1997/2003) and Nord (1997).

¹¹ See also Chesterman (2007b) and Hermans (1997).

¹² This is also the classification used in Saldanha and O'Brien's (2014) work, even if from a different perspective.

properties of natural, spoken or written texts/interactions used in different social, cultural or institutional contexts. In addition to the external context, it also explores the impact of the textual context. Furthermore, it is intended to enable a better understanding of the translation process through the product (for more on this, see Bell, 1991), therefore product- and process-oriented research are often combined.

Product-oriented studies aim to describe, explain and evaluate particular discourse features (Saldanha & O'Brien, 2014, p. 50), and they therefore pursue a descriptive, explanatory or evaluative approach. To this end, they draw primarily (but not exclusively) on the theories and methodological apparatus of corpus linguistics, text linguistics and discourse analysis, and within the latter on critical discourse analysis, mediated and multimodal discourse analysis, genre analysis and conversation analysis. Their analyses focus on the discourse-level phenomena of translations (e.g. Károly 2007, 2017; Pisanski Peterlin, 2008a, 2008b), but there are also studies that explore units within the boundaries of the sentence (words, phrases, clauses, etc.) (e.g. Williams, 2007). The themes of such research are related to linguistic phenomena such as register and genre (López-Arroyo & Roberts, 2017), style (Pietrzak 2015), rhetoric (Bánhegyi, 2009; Mauranten, 1993), text coherence and cohesion (Károly, 2017), text quality (Schäffner & Adab, 2001), translation operations (Klaudy, 2003) and translation strategies (Chesterman, 1993).

The analysis of texts is conducted manually or automatically by computer. Researchers work with both qualitative and quantitative methods, so mixed-methods research has become very common, especially in the last 10-20 years. For example, qualitative (hypothesis-generating) analyses, usually carried out manually on a small database, are a natural follow-up to quantitative (hypothesis-testing) studies carried out on a large corpus with computer support, but text analysis can also be complemented by retrospective interviews to explore the underlying causes of text phenomena.

5.2. Process-oriented research

The object of inquiry in process-oriented research is the individual's mental/cognitive and behavioural, social and cultural processes that accompany language mediation. Researchers aim to explore and describe these processes and to examine how they affect different language mediation activities. This research trend started to proliferate in the 1980s, so there are many reviews available on the methods and results of investigations (Göpferich, 2010; Sun, 2011; Tirkkonen-Condit & Jääskeläinen, 2000; Tirkkonen-Condit, 2002). In early studies, researchers worked mainly with retrospective and introspective methods, as well as with verbal reports (diary writing, retrospective interviews or using the TAP/think-aloud protocol; Krings, 1987; Kussmaul & Tirkkonen-Condit, 1995). More recently, technological developments (screen recording,

keystroke logging¹³, eye-tracking software¹⁴ and machine translation) have opened up new avenues and contributed significantly to the increase not only in the number of studies but also in their quality. The problem with verbal reports is that they require dual processing (Cohen, 1987), as one has to concentrate on the task and reflect upon its completion (sometimes even in another language) at the same time, which may affect the time, manner, quality, etc. of task performance and thus distort the results of the research.

Researchers are interested in a wide variety of topics: translation competence (Brøgger, 2017), metacognition (translators' views of the translation process; Hubscher-Davidson, 2009), the cognitive effort required for the translation task (Lacruz, 2017) and working memory (Li, 2020).

As their aim is to explore the process of mediation and the impacts of accompanying phenomena, in their methods they typically use triangulation and work with a qualitative or mixed-methods paradigm. The use of software tools is often complemented by other methods that provide qualitative or quantitative data on the natural context of the text-production process and/or on the lives, personalities, etc. of the participants: for example, ethnographic research tools (e.g. observation, interview), questionnaires (e.g. psychometric tests, pre- and post-task questionnaires), or even physiological measurements (e.g. electroencephalography, EEG¹⁵; for more on this, see Saldanha & O'Brien, 2014, p. 148).

5.3. Participant-oriented research

The subjects of inquiry in participant-oriented research are the agents of the language mediation process: primarily the translator and the interpreter, but also the client, the editor, the target language recipient and, in the case of translator and interpreter training, the trainer or the trainee. Their approach is sociological in nature, and their aim is to explore and describe the social, cultural and sociological specificities of the participants of the process of language mediation. According to Saldanha and O'Brien (2014, p. 151), there are two complementary ways of exploring and understanding these characteristics: (1) through a focused study of the participants in the translation process or (2) by involving human help in the research process.

Scientific research in this area is thus based on a collaborative, recontextualisation activity between the researcher and the participants (translators, respondents, information providers, etc.). It is therefore important that the measuring instruments are produced and data collection is carried out in a language that the participants (data collectors and providers) use with a high

¹³ The keystroke logging software records keystrokes of the keyboard, pauses between each keystroke (their time and frequency), mouse movements, the time taken to complete the task, etc.

¹⁴ The eye-tracking software tracks and records the movements of the eye, as well as when (and for how long) the eye focuses on a particular point on the screen.

¹⁵ Electroencephalography makes it possible to investigate the physiological background of psychic functioning (the instrument registers the electrical activity of nerve cells).

level of confidence (preferably as their mother tongue), so that insufficient language competence does not distort the data and, consequently, the result of the research.

The topics of participant-oriented research are diverse: experiences and perceptions of students in translator training (Pisanski Peterlin, 2014), the characteristics of the interpreting/translating profession (Katan, 2009), translator expertise and attitudes (Muñoz-Miquel, 2018; Pavlovič, 2007), the use of technology (Vieira, 2017), etc.

In terms of methodologies, the combination of paradigms is also typical in these studies (e.g. combining questionnaire surveys and individual or focus group interviews). Action research, a type of practitioner research, particularly in education, is also a popular method, because through the notion of “learning by doing” (Campbell & McNamara, 2010), it allows the “doer” (e.g. the translator) to investigate how their “action” (e.g. an intervention to apply a new training method or technology in translator training) can change/improve their work. Focus group interviews are also used in action research, because they can reveal the opinions and perceptions of the participants of the intervention. In mixed-methods studies, as we have seen in section 4.3, the different methods are combined in various ways: quantitative method first, followed by qualitative method; qualitative method first, followed by quantitative method; quantitative and qualitative methods applied simultaneously at the same time (e.g. when a questionnaire contains both closed and open-ended questions).

Regarding data analysis, in questionnaire surveys with a sufficiently large number of respondents, statistical methods are expected to be used in the case of closed questions (yes-no questions, rank lists, questions about age/sex/ethnicity/etc. or interval scales such as numbers of years spent abroad) and for Likert scales¹⁶. For open-ended, long-answer questions and in the case of interview research, analysis is conducted using qualitative methods, such as content or thematic analysis.

5.4. Context-oriented research

Context-oriented research, in its objects of inquiry, focuses on the environment and circumstances of linguistic mediation, so the term does not primarily refer to the context. Its approach is sociological and cultural (socio-cultural) in nature. It aims to explore and describe the social, economic, political, ideological or other factors that influence (possibly motivate) the work of the translator/interpreter, the context in which language mediation takes place and the impact of translation/interpreting on the target culture (Saldanha & O’Brien, 2014, p. 205).

¹⁶ Likert scales are used in quantitative research to measure quality between two extremes (e.g. attitudes towards a certain activity). It usually ranges from 1 to 5, 1 to 7 or 1 to 10 (1: “strongly disagree”; highest: “strongly agree”; middle: neutral attitude or “can’t decide”). The scale can also consist of an even number of scores (e.g. 1 to 4) if the respondent is asked to make a decision (there is no middle score for a neutral response).

Consequently, this research trend is characterised by both descriptive and explanatory studies.

As for topical focuses, research in the field covers the above-mentioned themes in different institutional contexts (the EU, courtroom, higher education, etc.; Koskinen, 2008), political-economic contexts (Sánchez, 2011), disciplinary contexts (Krein-Khüle, 2011), cultural contexts (Hamdan & Natour, 2014).

Since the focus of these investigations is on the influences of context, the most typical research paradigm is qualitative research, and, within that, case studies. The case study is a popular method because, unlike experiments which study phenomena under controlled conditions, it explores the phenomenon (= the case) in its natural, real-life context (e.g. using observation or interviews). It is therefore an important condition in such studies that the basic unit of analysis (the “case” investigated) be a “real” phenomenon with its own context (i.e. contextualised) and not an abstract phenomenon (such as a theme, argument or hypothesis; Yin, 2009, p. 32). A “real case” can be:

- a person (translator or interpreter);
- a piece of discourse (source/target language text, draft/final version of a document, as long as it is complete and not just a part of a larger piece, because parts do not fulfil the condition of contextualisation);
- an institution (e.g. a training centre, translation agency);
- an event (outbreak of war, presidential elections, etc. which motivate substantial translation activity), or;
- a process (e.g. a training programme, from enrolment to entering the job market) (Saldanha & O’Bien, 2014, pp. 207–208).

It is important to note here that, if necessary, a case study can also have a quantitative element (e.g. if a particular aspect of the case is also interesting from a quantitative perspective; see section 4.3). However, the statistical results obtained in this way can only be applied to the specific case (the given person, text, etc.) and cannot be generalised.

6. Conclusion and recommendations

This paper reviewed the principles, characteristics and quality criteria of the research methods applied to the empirical study of linguistic mediation, to then be able to present the principal directions of research in the field according to their objects of inquiry, aims, approaches, thematic focuses and methods.

As the discussion has shown, translation studies have made enormous progress over the past half century in terms of the methodological apparatus and sophistication of its research background. Still, similarly to other disciplines, not all investigations follow all of the important quality standards. I have already referred to some of the typical shortcomings and dangers, but for ease of

reference, I will offer below a set of guidelines that may be used when finalising one's research plan or paper to make sure that its research methodological background meets the relevant quality criteria. Due to the disciplinary focus of this paper (the study of linguistic mediation) and the interdisciplinary nature of the field, special attention is paid in this "checklist" to include the quality standards of research that involves text analysis as well.

- (1) Are the research aims, questions and, if relevant, the hypotheses stated explicitly, clearly and unambiguously?
- (2) Are the research aims, questions, hypotheses and the chosen methods fully consistent with each other?
- (3) Do the research questions (and, if relevant, the hypotheses) fit the methodological paradigm chosen?
- (4) Has the choice of the research paradigm and the research methods been justified?
- (5) Is information provided about the reliability of the (whole) research and/or of its constituents (e.g. about the reliability of the analysis of corpus data)?
- (6) Is a control analysts/co-coder involved to ensure the reliability of textual data analysis?
- (7) Is a sample text analysis included (in the methods section or the appendix) to provide information about the methodology and the steps of the analysis in order to ensure the replicability of the research?
- (8) In the case of qualitative research:
 - are the selection criteria for the choice of context, participants or texts listed, and;
 - is it justified why the given context/participant/text may be considered as the most appropriate data source from the point of view of the aims of the study?
- (9) In quantitative research:
 - are statistical methods used for data analysis when dealing with a sufficiently large number of respondents/texts/etc. (instead of merely mean values and percentages), and;
 - is the level of significance specified and interpreted in the statistical analysis, and;
 - are the findings also visually represented (in tables, figures, charts or diagrams)?
- (10) When designing a new measuring instrument, is information provided:
 - regarding its reliability and validity, and;
 - about its validation?
- (11) Is the presentation and the discussion of the findings in line with the research paradigm chosen?
- (12) Do the conclusions drawn based on the data meet the quality criteria of the chosen research paradigm (in terms of generalisability or transferability)?

- (13) Is the summary of the findings coherent with the research aims and questions?
- (14) Is the chosen methodology evaluated to inform future research on the topic?

In order to ensure the disciplinary competitiveness and the further development of translation studies, it is important to design sound studies that meet the strictest quality criteria of empirical research (and thus, for instance, get published over the long run). This of course does not only apply to research in translation studies, but also to other disciplines. A general difficulty is that there are still many theoretical and practical questions relating to mixed-methods research, since despite its relative frequency, it does not yet have a very long tradition (like single-paradigm studies do). Therefore, an important avenue for further research is to evaluate research conducted using mixed methods, collect and synthesise the outcomes of such analyses, to then be able to address the theoretical and practical questions that cannot yet be answered.

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