

# TRANSCREATION OF LEAFLETS AS A TOOL FOR INCLUSION AND HEALTH EDUCATION: A DIACHRONIC STUDY

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## Abstract

The affluence of migrant communities to Spain, with its linguistic and cultural particularities, has caused, among other phenomena, the rise of new communication needs. Social groups not speaking the majority language of a country need to have access to certain contents and information. So, it is necessary to promote the multilingual dissemination of that information. This is especially relevant in such a sensitive area as healthcare. Translation and interpreting, as disciplines and as professional practices, play a leading role in meeting the communication needs between healthcare professionals and migrant communities.

In this regard, an interesting trend known as transcreation has been observed in recent years in the field of translation. Transcreation is a process by which some parts of a text are translated and others are creatively reinterpreted. Within the healthcare sector, it focuses on adapting materials designed for health information and health education to facilitate their better understanding by people of other cultures or ethnicities. Several studies have explored the capacity of transcreation of healthcare materials (from information leaflets to IT tools) as a means of including and reaching out to linguistic minorities. This reduces the disparity in access to the healthcare system and promotes the inclusion of migrants.

According to the INE (Spanish National Institute of Statistics) data (2020), the country from which more immigrants come to Spain is Morocco. Considering the population originating from other countries where French is an official language (France, Algeria, Belgium, Switzerland, Mali, Senegal and Canada), the French-speaking population resident in Spain is considerable.

The main objective of this work is to identify the strategies of linguistic and cultural adaptation that have been carried out in Spain in recent years to facilitate access to health information and education for the French-speaking migrant population through the use of informative leaflets. Specifically, the aim is to determine the extent to which transcreation processes are being applied in the translation of this type of text. This objective is divided into three specific objectives: SO1) to design a set of indicators of the presence of transcreation strategies in information leaflets, SO2) to apply these indicators to a sample of leaflets and their translations into French in the healthcare field produced in Spain in recent years and SO3) to validate that set of indicators.

The methodology consisted in a two-phase process. First, the indicators were designed according to a bibliographical revision of the scientific literature on the matter. These indicators were built on a numeric scale to facilitate the later processing of the data. Second, the set of indicators was applied to a sample of leaflets and data were collected and treated with the SPSS statistical package.

The validation of the data determined which indicators were not relevant for evaluating transcreation in the sample, resulting in a final validated set of indicators. The statistical analysis of frequencies made it possible to quantitatively measure the values of each indicators, providing knowledge of the state of transcreation in the healthcare sector in Spain in the last decade. The study concluded that there has not been a clear evolution in this respect over time and that transcreation processes are not yet applied to translate and culturally adapt this type of material.

Keywords: health education, translation, transcreation, information access.

## 1 INTRODUCTION

The affluence of migrant communities to Spain, with its linguistic and cultural particularities, has caused, among other phenomena, the rise of new communication needs [1]. When social groups that do not speak the majority language of a country need to access certain contents, it is necessary to promote the multilingual dissemination of that information. This is especially relevant in such a sensitive area as healthcare. Translation and interpreting, as disciplines and as professional practices, play a leading role in meeting the communication needs between healthcare professionals and migrant communities [1].

In this regard, an interesting trend which focuses on the use of a set of strategies known as transcreation has been observed in recent years in the field of translation. Transcreation is a process by which some parts of the text are translated and others are creatively reinterpreted [2]–[4]. It is an adaptation of the linguistic message, but also of the form in which it is presented [5] and any socio-cultural element that has an impact on the transmission of the message (taking into consideration the target audience). It is noteworthy that transcreation has been more widely accepted in the fields of marketing and advertising [3], since in these cases creativity and persuasion of the message are highly valued in order to attract customers.

Within the healthcare sector, transcreation focuses on adapting materials designed for health information and education to facilitate their better understanding by people of other cultures or ethnicities. Several studies have explored the capacity of transcreation of healthcare materials (especially leaflets, but also other materials such as IT tools) as a means of including and reaching out to linguistic minorities [6]–[11]. This reduces the disparity in access to the healthcare system and promotes the inclusion of migrants [12].

In the case of Spain, according to the INE (Spanish National Institute of Statistics) data [13], in the first semester of 2019 there were 348,625 migrations coming from abroad. The majority of this foreign population was recorded as coming from Morocco. If compared with previous years, the figure has grown progressively, except for a significant peak in 2008, when there were 599,074 immigrants. Regarding the last figures of 2019, the number of French residents in Spain has increased (114,384), while the number of Moroccans does not go down from 700,000. This is in addition to the population of other countries where French is an official language (Belgium, Switzerland, Algeria, Mali, Senegal and Canada), whose migrant population in Spain exceeded 22,000 in 2019. These data show that, over the years, as well as today, there is a large number of French-speaking population residing in Spain. It is therefore appropriate to carry out a study assessing the characteristics of the translation and cultural adaptation of health information leaflets in Spain for the French-speaking population.

The main objective of this work is to identify the strategies of linguistic and cultural adaptation that have been carried out in Spain in recent years to facilitate access to health information and education for the French-speaking migrant population through the use of informative leaflets. Specifically, the aim is to determine the extent to which transcreation processes are being applied in the translation of this type of text. This objective is divided into three specific objectives: SO1) to design a set of indicators of the presence of transcreation strategies in information leaflets, SO2) to apply these indicators to a sample of leaflets and their translations into French in the healthcare field produced in Spain in recent years and SO3) to validate that set of indicators through a statistical analysis.

## **2 METHODOLOGY**

### **2.1 Samples selection and description**

For this study, materials from two databases that provided information resources on reproductive health and sexually transmitted diseases in both Spanish and French were used. The topic of sexually transmitted diseases was chosen because the databases offered a greater volume of leaflets than other subjects. In addition, it was decided to add the leaflets on reproductive health to further broaden the focus, as these subjects are closely related.

Two study samples were collected: 110 leaflets published between 2006 and 2010, and 20 leaflets dating from 2019. In total, 130 brochures were analyzed. The two samples were therefore compared in terms of the transcreation strategies used to adapt the leaflets.

The first sample of brochures was extracted from the database of the IEC Resource Center for the immigrant population, which has been developed by the Andalusian School of Public Health. It is endorsed by the Spanish Government and the Regional Government of Andalusia. This sample consists of one bilingual leaflet, one multilingual leaflet, 54 leaflets in Spanish and their corresponding translations into French. The materials in the first sample (110 leaflets) are mostly aimed at the general public, although four of them specifically target young people. These resources come from different Regional Governments in Spain: Comunidad de Madrid, Región de Murcia, Andalusia and Castilla-La Mancha. The average length of the leaflets is 1-2 pages, with the exception of one leaflet which is 28 pages long in Spanish, and its corresponding bilingual Spanish-French version, which is 56 pages long.

The second sample was taken from the resource repository of the NGO 'HIV Treatment Working Group' (gTt-VIH). This is a non-profit association born in Barcelona in 1997. It has been declared an

organization of public utility and produces information on treatments for HIV and AIDS. It also carries out work to defend and promote human rights. This sample is made up of 10 leaflets in Spanish and their respective translations into French published in 2019. All the leaflets in this sample are one-page long.

## 2.2 Design and application of indicators

To evaluate the presence of transcreation strategies in the leaflets, a set of indicators was developed from a review of scientific literature. Since there is still a lack of studies on the development of transcreation indicators, work on the development of localization indicators was taken as a reference [14]–[17], since localization consists on the adaptation of a multimedia product to different levels so that it can be used by an audience with linguistic and/or cultural differences from the one for which it was originally intended [18]. On the other hand, reference was also made to well-known works in the field of Translation and Interpreting [19] and language policy [20] which proposed indicators and definitions to evaluate translation quality from a linguistic and inclusive language point of view. Finally, in order to design appropriate indicators for the subject matter and format of the texts in the sample, works that specifically analyzed the translation and cultural adaptation of health information leaflets were consulted [21], [22].

After reviewing these studies, a set of indicators was compiled, which was divided into two dimensions. First, a dimension measuring the presence of transcreation in the formal aspects of the leaflet, in its structure and design. The indicators included in this dimension would measure aspects such as the structure, colors, number of images and their positioning, the positioning of the text and the positioning of graphics or tables if any.

*Table 1. Indicators evaluating formal aspects.*

Institution logo		Visual aspect (size, colors, etc.) of the organization's logo
Logo placement		Position in the leaflet in which the logo appears
Frequency of logos		Frequency of the logos
Leaflet structure	Top right half	Distribution of the sections that compose the leaflet
	Bottom right half	
	Top left half	
	Bottom left half	
Colors in	Top right half	Colors in the leaflet
	Bottom right half	
	Top left half	
	Bottom left half	
Major copy placement		Position in the leaflet in which the major copy appears
Number of images		Number of images in the leaflet
Major images placement		Position in the leaflet in which the major images appear
Major chart of graph placement		If any, position in the leaflet in which the major chart or graph appears

On the other hand, a second dimension of indicators was defined to evaluate aspects related to the content, both linguistic and non-linguistic, of the leaflets. This dimension would include indicators to assess the extent of the translated content, the quality of the target language, the treatment of headings and subheadings, issues of pragmatics, style, register and suprasegmental elements, aspects referring to the use of acronyms, the presence of inclusive language and other indicators related to the content of the images in the leaflets.

Table 2. Indicators evaluating content aspects.

Content Depth		Extent of the content made available to the users of the leaflet in the target language
Target language quality		Quality of language defined in terms of correct use of syntax, lexicon, style, spelling, and pragmatics
Headings and subheadings		Elements that organize the linguistic content of the leaflet on the macro level
Pragmatics	Textual genre	Set of conventions that define and categorize a text
	Linguistic functions	The communicative function (or combination of communicative functions) of a text in a given situation, constituted by the specific constellation of extra-textual factors (role of the sender and sending intention, receiver and receiving expectation, medium, place, time and motive)
Style		Set of conventions and rules that condition the expression choices made by the issuer of the text
Inclusive language		Language that addresses men, women, and those who do not conform to the binary gender system as persons of equal value, dignity, integrity and respect
Register		Relation between the receiver and the issuer that motivates the choice of certain forms of expression
Use of acronyms		Use of acronyms in the leaflet
Font size and type		Visual elements, such as italics, wide, bold, quotation marks, dashes, parentheses, etc.
Images	Real photograph	Content of the major images: real photograph, drawing or human models
	Drawing	
	Human model	

To measure these indicators, a Likert scale with values of 1-5 was developed to evaluate the degree of transcreation present in the leaflets. Some indicators were evaluated with a Likert scale of 0-2 due to their specific characteristics. In general, the higher the value on the Likert scale of an indicator, the greater the presence of transcreation. Table 3 shows what each scale value indicates for each indicator.

Table 3. Likert's scale values.

<i>Content depth</i>	<i>Target language quality</i>	<i>Register and Inclusive language</i>	<i>Other indicators</i>
1 = Only basic information translated	1 = Very poor	0 = Not evaluable	1 = Standardized
2 = Only a short part of content translated	2 = Poor	1 = Standardized	2 = Slightly Different
3 = Half of the content translated	3 = Neutral	2 = Different	3 = Different
4 = Almost all content translated	4 = Good		4 = Very Different
5 = All content translated	5 = Very good		5 = Unique

## 2.3 Data processing

The data were processed with the SPSS statistical package through a descriptive statistical analysis. To measure the transcreation indicators, data validation formulae were applied to exclude indicators that did not provide relevant information. The remaining indicators and their scores on the Likert scales described above were then evaluated through frequency analysis. Thus, the presence of transcreation strategies would be identified.

### 3 RESULTS

After applying the indicators to the study samples, the first step was to validate the data to determine which indicators had not been relevant for assessing transcreation in the sample. It was decided to exclude from the preliminary analysis those indicators that could not have been applied to a large percentage of leaflets, thus excluding those indicators which recorded more than 70% of cases missing [23].

For sample 1, of brochures produced between 2006 and 2010, the indicators in table 4 were excluded. All of them were indicators relating to the content and position of the images, graphs or tables.

*Table 4. Cases Missing >70 for sample 1.*

Variable Checks		
Categorical	Cases Missing > 70	Real photograph Drawing Human model Number of images Major images placement Major chart of graph placement
Each variable is reported with every check it fails.		

For sample 2, of leaflets produced in 2019, only one indicator registered more than 70% of cases missing: Real photograph, an indicator that had already been excluded from sample 1. This variation in the number of excluded indicators is explained by the different characteristics of both samples in terms of place and time of production.

*Table 5. Cases Missing > 70 for sample 2.*

Variable Checks		
Categorical	Cases Missing > 70	Real photograph
Each variable is reported with every check it fails.		

Statistical frequency analysis was then applied to quantitatively measure the values of each indicator.

In the first dimension of indicators (those that evaluated the structure, design and formal aspects of the leaflets) the results indicated that the presence of transcreation strategies was quite low. All indicators in this dimension were measured with a Likert scale of 1-5.

For sample 1, for all indicators the median and mode value was 1, suggesting that most leaflets presented the value "1 = Standardized". The highest mean was presented by the indicator "Colors in top right half", with a value of 1.32, which indicates that, generally, the original Spanish leaflets and their versions in French presented a very high level of similarity in their formal aspects and that, therefore, no transcreation strategies have been detected.

Similar data were obtained for sample 2. This second sample had the particularity that all the leaflets had been produced by the same issuer in the same year, which resulted in no disparity between the original Spanish leaflets and the versions in French. Thus, the mean, median and mode of all indicators was 1.

In the second dimension of indicators, those which evaluated both the linguistic and non-linguistic content of the leaflets, no significant presence of transcreation strategies was found either. For the indicators of this dimension that were evaluated with a Likert scale of 1-5, in sample 1, the highest mean value was presented by the indicator "Human model", with a value of 1.44. This, together with the median and mode of the other indicators being 1, indicates that the Spanish leaflets and their versions in French were very similar.

These same indicators gave very similar results for sample 2. In this one, all of them presented on mean the value 1, except for the indicator "Title and subheadings", which presented a value of 1.1. These data are not surprising considering that all the leaflets in the sample were produced by the same organization.

### 3.1 Outstanding indicators

On another note, the indicators of the second dimension (linguistic and non-linguistic content) that were evaluated with a scale of 0-2 presented other types of results. For the "Register" indicator, which measured the similarity in the use of the forms of respect and proximity in second-person pronouns in both languages (*tú y usted* in Spanish, *tu* and *vous* in French), it was observed that only 28.6% of the texts in sample 1 used a similar system in both texts. That is, in 71.4% of the texts, differences were observed in the register used in French and the one employed in Spanish. This same indicator for sample 2 showed that 80% of the leaflets had differences in the use of second-person pronouns in Spanish and French. Thus, there is a tendency to apply different systems in both languages, changing slightly the register of proximity from the original texts to a politer register in the translated texts. This would indicate that certain cultural aspects are being taken into account when adapting this type of material into French.

The indicator "Inclusive language", which measured the similarity of the use of inclusive language between the original texts in Spanish and the versions in French, showed that 75% of the leaflets analyzed in sample 1 did not present characteristics of inclusive language in either Spanish or French. Of those that did present these characteristics, 8.9% did so similarly in both languages, while 16.1% presented differences between the original texts and the translations. As for this same indicator in sample 2, there was no presence of inclusive language in any of the leaflets, neither in Spanish nor in French. This may be due, among other reasons, to the limited size of the sample.

Finally, two indicators that deserve separate consideration are "Content Depth" and "Target language quality", since these two indicators assessed very specific aspects of the target texts.

"Content Depth" is an indicator that measured the extent of linguistic content translated into the target text. That is, it evaluated how much of the translated leaflet was actually in the target language (French), and how much was left in a supposedly translated version (text left in Spanish). For this indicator, on the Likert scale, "1" indicated that only basic information had been translated, while "5" indicated that all content had been translated. In sample 1, only 8.9% of leaflets in French had all their content available in this language while 89.3% had "almost all content translated". Only one brochure (1.8%) had "half of the content translated". In sample 2, 100% of the texts offered were "almost all content translated". This indicates that leaflets have often ignored certain parts of the original text in the translation, and left it in the original language (Spanish). These are information such as contact details, opening hours or slogans. Sometimes, not translating a text completely, and in particular such sensitive texts, can lead to serious comprehension problems.

"Target language quality" is an indicator that evaluates the quality of French in translated leaflets on a Likert scale where 1 indicates very poor language quality, and 5 indicates very good quality. For sample 1, only 48.2% of the texts were of very good linguistic quality (27 leaflets); 41.1% were of good linguistic quality (23 leaflets); 7.1% were of neutral quality (4 leaflets); 1.8% were of poor linguistic quality (1 leaflet) and another 1.8% was considered to have very poor linguistic quality (see details in Fig. 1). Although almost half of the leaflets had a very good linguistic quality, this data indicates that more than half of the leaflets presented a linguistic quality that could be improved. This may indicate that the translation of these texts has often not been done by professional translators, or that no time or resources have been invested in a thorough revision process.

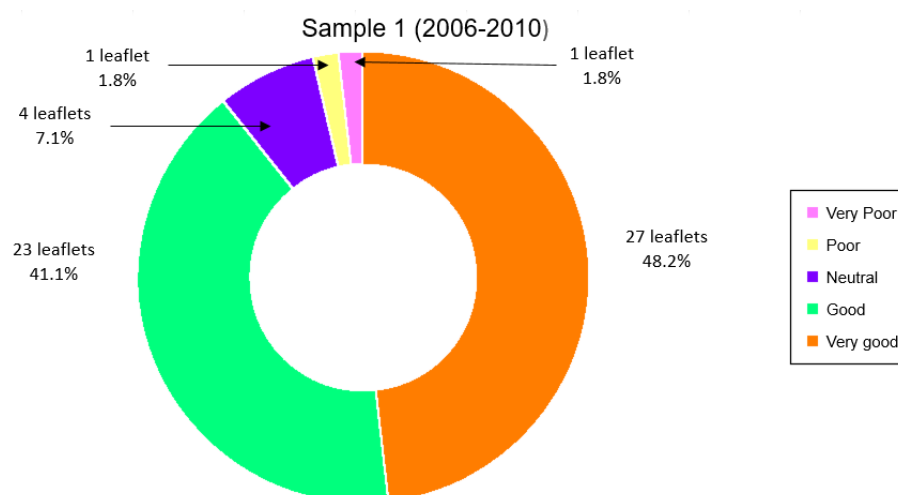


Figure 1. Values for “Target language quality” in sample 1

For sample 2, the results show the opposite. In 80% (8 leaflets) of the cases, the linguistic quality was considered very good. In the remaining 20% (2 leaflets), the quality was considered to be good. This seems to indicate a certain evolution towards a greater investment of time and resources in the translation processes of these leaflets, at least by the organization that produces the leaflets of the second sample.

## 4 CONCLUSIONS

The main objective of this work was to identify the efforts and strategies of linguistic and cultural adaptation that have been carried out in Spain in recent years to facilitate access to health information and health education for the French-speaking immigrant population through the use of informative leaflets. In order to achieve this objective, a set of indicators that evaluated the strategies of transcreation of information leaflets has been designed and applied. Specifically, these indicators have been applied to a set of health information leaflets produced in Spain in recent years and to their translations into French. These indicators have quantitatively evaluated the degree of presence of transcreation strategies.

After excluding the indicators that were not relevant for the sample, these have allowed for the conclusion that no clear evidence has been found that transcreation strategies are being applied in Spain in the processes of translation and cultural adaptation of these leaflets aimed at the French-speaking immigrant population.

However, it is a positive sign that some aspects of cultural adaptation are present in the sample of leaflets produced between 2006 and 2010 and in the leaflets produced in 2019. In particular, the different use of second-person pronouns in Spanish and French. It was observed that in the French leaflets the use of the courtesy pronoun (*vous*) is preferred over the proximity pronoun (*tu*), while in the Spanish texts the forms of proximity (use of *tú* vs use of *usted*) are preferred. This denotes at least some culture awareness in the translation process.

Another positive aspect is the level of linguistic quality of translations into French. While the first sample (2006-2010) already showed that a high percentage of the translated leaflets had good or very good linguistic quality, this percentage was even higher in the second sample (2019). This shows a trend towards improving the linguistic quality of the translated leaflets.

However, the general conclusion is that cultural issues are not sufficiently taken into consideration in the processes of adaptation of the health information leaflets for the French-speaking migrant population in the sample. Logically, given the limited size of the sample, this information should be interpreted very cautiously.

New possible lines of research are then opened up on the basis of this work. For example, the design and application of indicators of transcreation strategies that can be applied to other types of materials in the healthcare field and that are susceptible to being transcreated. For example, websites containing health information. After all, transcreation plays an indisputable role in the multilingual dissemination of information that should not be disregarded.

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