Factors explaining informal linguistic usage among Catalan schoolchildren: initial language, social networks, competence and vehicular language for teaching

Mireia Galindo i F. Xavier Vila i Moreno

Abstract

The linguistic model of joint teaching in Catalan generally implemented in the school system since 1993 establishes that Catalan is the vehicular language for teaching in Catalonia and seeks to promote the use of Catalan among pupils. However, in contrast to the hopes of some sectors, the adoption of this model has had much less of an effect than expected on interpersonal use among pupils.

This article assesses the impact of the adoption of Catalan as the main teaching language on the informal linguistic usages of Catalan school pupils using materials collected in the School and Usage project, which includes declared and experimental data and observations of the linguistic beliefs and behaviour of pupils in the sixth year at primary school in Catalonia. The importance of different variables – the pupils' initial language, the composition of their social networks, the importance of the linguistic environment, their competence in Catalan and Spanish and the school linguistic model – for the configuration of these practices is then analysed.

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1. The model of joint teaching in Catalan and the impact of the vehicular language for teaching

Between the 1980s and 1990s, Catalonia transformed its school linguistic model to the point where, in the majority of cases, it implemented the model of joint teaching in Catalan, based on teaching all pupils together, regardless of their first language, and on the adoption of Catalan as the normal vehicular language for teaching (Vila 2000, in press). In general terms, the educational and social agents involved in the project predicted that this school linguistic model would increase knowledge of the Catalan language among pupils and, as a side effect, would increase the use of this language in the informal linguistic practices of the new generations.

The current level of implementation of the model of joint teaching in Catalan is a controversial issue, but in general terms it can be stated that, more or less since the beginning of the millennium, this model has been strongly predominant in primary education and is present in the majority of compulsory and post-compulsory secondary education, although with many exceptions (Vila [coord.] 2006). In this context, various studies make it possible to assess the impact of the adoption of Catalan as the teaching language on knowledge in use. The results, although by no means negligible, show significant black spots in terms of the expectations generated in relation to the role of the vehicular language for teaching.
On one hand, it can be stated that knowledge of Catalan among young people and teenagers has increased significantly compared with previous generations in the four skills of comprehension, knowing how to speak, knowing how to read and knowing how to write (Vila 2005). However, despite this increase, mastery of Catalan in the new generations continues to be more fragile than mastery of Spanish and, above all, shows a greater variation than in the case of the latter language. This is particularly related to the initial language, as Catalan-speakers tend to show greater mastery of Spanish than Spanish-speakers do of Catalan (see Arnau 2004). In this sense, several recent studies coincide in pointing out considerable gaps in the linguistic competence of the Catalan school population. So, for example, the assessment of the basic competences of pupils in the 4th year of primary school in Catalonia has shown rather negative results in terms of the linguistic capabilities of children who have gone to school in Catalonia (Education System Higher Assessment Council 2007a). According to these tests, the percentage of infants achieving the established levels of competence in listening and reading comprehension in Catalan was around 80%; in written expression, the results fell away dramatically, standing at just over 50%.

Another study that has warned of poor results in linguistic competences in Catalan is the PISA 2006 report (Education System Higher Assessment Council 2007b, Jaume Bofill Foundation 2008). According to this edition of the report, the levels of reading comprehension of 15-year-old pupils in Catalonia stood below those of pupils in the European Union in general and in the OECD, below those of several Spanish autonomous communities and only slightly above the Spanish average. The information in this report particularly indicates the effect of new immigration on the educational scene in Catalonia. In this case, the report makes it clear that the efforts made to address the linguistic incorporation of the new population are not providing the desired results, as the reading comprehension score for the non-native population in Catalonia is, comparatively, the lowest for all the countries in the sample.¹

Finally, another recent study of the linguistic competences of Catalan pupils is the Socio-demographic and Linguistic Survey (2006) by the Higher Assessment Council of Catalonia (2008). This survey makes clear, among other things, that in terms of stated competence, secondary school pupils in Catalonia feel more competent in Spanish than in Catalan, even though, for a good proportion of them, Catalan has been the predominant language in their schooling.

Concerning the use of Catalan among the school population, the picture is also a complex one, and it is not necessarily positive for the Catalan language. On one hand, in demolinguistic terms, various studies indicate that, in Catalonia, the number of children who have Catalan as their initial language is slowly but continuously growing in absolute terms, and there are increasing numbers of linguistically mixed couples who transmit Catalan to their children, even in the Barcelona Metropolitan Region (Galindo and Rosselló 2003, Torres 2003, 2005, Education System Higher Assessment Council 2008). However, this increase in absolute terms is not seen translated into an effective growth in the use of Catalan outside the home. This is both because the arrival of new speakers of Spanish and foreign languages puts Catalan in a demographic minority and because of the fact that unwritten rules continue to discourage its use in interactions between Catalan-speakers and non-Catalan-speakers. In this sense, the informal linguistic practices of children and young people have been the subject of various pieces of research (see a summary in Vila and Galindo 2006, Vila and Gomàriz (eds.) 2008). Unfortunately, little of this research was carried out throughout Catalonia as a whole. We might highlight the School and Usage project, focusing on the last year of primary education (Vila and Vial 2003, Galindo 2006, Vila and Galindo 2006, Galindo and Vila 2008), the study by Vial and Canal (2002), carried out among pupils aged 9 and 10, and the Socio-demographic and Linguistic Survey 2006, by the Higher Assessment Council of Catalonia (2008), applied at the end of compulsory secondary education. In the following sections, we will go into greater depth, particularly on the most important results than can

¹ It must be borne in mind that Catalonia is one of the countries in the sample with the greatest relative presence of recently incorporated pupils (32% of arrivals have been there for under 3 years). However, there are countries including higher percentages of newcomers (as is the case, for example, of Spain or Italy, with 38% and 35% of non-native pupils respectively) and which obtained better results.
be extracted from the School and Usage project, the only one of the three based on observed linguistic behaviour.

## 2. Languages in primary school playgrounds

### 2.1. The school and usage project

The School and Usage project began with the intention of analysing the impact of the use of Catalan as the vehicular language for teaching on language use by pupils who were finishing primary education. The study, the fieldwork for which was done at the end of the '90s, collected declared, observed and experimental data in 52 schools throughout Catalonia, except for the Vall d’Aran, which was left out because of its specific linguistic characteristics.

The selection of the 52 schools followed three criteria. Firstly, 5 categories of school were differentiated according to the environmental linguistic conditions, or the declared knowledge of Catalan in the area where the school was located according to the last available language census, which amounts to the same thing (table 1).

### TABLE 1. Environmental conditions

<table>
<thead>
<tr>
<th>Area coding</th>
<th>% of people declaring that they understand Catalan</th>
<th>% of people declaring that they know how to speak Catalan</th>
<th>Population aged 2 and over</th>
<th>Schools located there</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>85%</td>
<td>43%</td>
<td>1.062.361</td>
<td>18%</td>
</tr>
<tr>
<td>2</td>
<td>92%</td>
<td>61%</td>
<td>1.513.219</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>96%</td>
<td>73%</td>
<td>1.402.279</td>
<td>24%</td>
</tr>
<tr>
<td>4</td>
<td>98%</td>
<td>85%</td>
<td>1.535.483</td>
<td>26%</td>
</tr>
<tr>
<td>5</td>
<td>100%</td>
<td>94%</td>
<td>435.835</td>
<td>7%</td>
</tr>
<tr>
<td>CAT. AVERAGE</td>
<td>93%</td>
<td>68%</td>
<td>5.949.177</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: 1991 census, IDESCAT and SEDEC

And, finally, whether the schools taught entirely or almost entirely in Catalan or taught some lessons in Catalan and some in Spanish was taken into account (table 3).

### TABLE 2. Linguistic situation in teaching

<table>
<thead>
<tr>
<th>Type of centre</th>
<th>Teaching language or languages</th>
<th>Schools of each type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>schools using both Catalan and Spanish (according to different types of bilingualism)</td>
<td>439 20%</td>
</tr>
<tr>
<td>2</td>
<td>schools teaching subjects in Catalan (either partially – one subject in Spanish - or totally)</td>
<td>1.757 80%</td>
</tr>
<tr>
<td>TOTAL CATALONIA</td>
<td></td>
<td>2.196 100%</td>
</tr>
</tbody>
</table>

Source: IDESCAT and SEDEC, academic year 1992-93

Meanwhile, the schools were classified into three groups depending on the demo-linguistic composition of the group of pupils there; that is, the percentage of Catalan- and Spanish-speakers attending the school (table 2).

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2 The project, directed by F. X. Vila i Moreno, benefited from grants PB98-1175 from the Ministry of Education and Culture and 1998SGR-0041 from the Government of Catalonia, and it enjoyed the support of the Catalan Education Service (SEDEC).
TABLE 3. Linguistic situation at school

<table>
<thead>
<tr>
<th>Type of centre</th>
<th>Percentage of pupils from Catalan-speaking families</th>
<th>Centres of each type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Up to 30% (p ≤ 30)</td>
<td>813</td>
</tr>
<tr>
<td>2</td>
<td>Over 30% and under 70% (30 &lt; p ≥ 70)</td>
<td>687</td>
</tr>
<tr>
<td>3</td>
<td>More than 70% (p &gt; 70)</td>
<td>696</td>
</tr>
<tr>
<td>TOTAL CATALONIA</td>
<td></td>
<td>2,196</td>
</tr>
</tbody>
</table>

Source: IDESCAT and SEDEC

The combination of these three categories gave rise to 30 possible types of school. The final sample included 14 types, as some combinations were very difficult to find for operational and budgetary reasons. This is why it cannot be considered a representative sample in statistical terms, and the results must be read simply as broad trends among the school population in the 6th year of primary school.

Three types of data were collected at the 52 schools: in the first place, declared data on the language used by pupils to relate to their families and their social networks, through the administration of questionnaires; secondly, observed data through the recording of children’s conversations in unmonitored situations at break times and, finally, experimental data on oral knowledge of Catalan and Spanish, with the SEDEC’s standard tests for assessing linguistic competences.

The data from declared and experimental sources was tabulated. The recordings were digitalised using the SoundForge sound treatment program and they were transcribed following the transcription criteria of the Department of Catalan Philology at the University of Barcelona. All the materials were analysed using the SPSS statistical processing program, based on qualitative and quantitative techniques and, among other variables, those included in table 4 were taken into account.

TABLE 4. Variables taken into account in the analysis

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family language of the interlocutors</td>
</tr>
<tr>
<td>1.1. Family linguistic situation of the speaker</td>
</tr>
<tr>
<td>1.2. Family linguistic situation of the listener</td>
</tr>
<tr>
<td>2. Language of the interlocutors’ social networks</td>
</tr>
<tr>
<td>2.1. Language of the speaker’s social networks</td>
</tr>
<tr>
<td>2.2. Language of the listener’s social networks</td>
</tr>
<tr>
<td>3. Oral linguistic competence of the interlocutors</td>
</tr>
<tr>
<td>3.1. Linguistic competence of the speaker</td>
</tr>
<tr>
<td>3.1.1. Oral comprehension in Catalan</td>
</tr>
<tr>
<td>3.1.2. Oral comprehension in Spanish</td>
</tr>
<tr>
<td>3.2. Linguistic competence of the listener</td>
</tr>
<tr>
<td>3.2.1 Oral comprehension in Catalan</td>
</tr>
<tr>
<td>3.2.2. Oral comprehension in Spanish</td>
</tr>
<tr>
<td>4. Family language of the school’s pupils</td>
</tr>
<tr>
<td>5. Oral linguistic competence in the area where the school is located</td>
</tr>
<tr>
<td>6. Language lessons are taught in</td>
</tr>
</tbody>
</table>
2.2. Linguistic choices at break time

When it came to doing the fieldwork for this study, the two languages heard most during break times in the 52 schools analysed as a whole were Catalan and Spanish, in quite unequal proportions: while slightly over a third of the recorded speaking turns were in Catalan, almost two thirds were in Spanish, and only 1.6% showed alternating languages (graph 1). The presence of other languages must be considered as isolated occurrences (0.2%). In the body of data collected, children use English and French to sing, Arabic to play a language game and German to read a short text in that language (table 5).  

![Graph 1. Language of children's speaking turns](http://www.gencat.cat/llengua/noves)

Source: Vila, Vial and Galindo body of data

<table>
<thead>
<tr>
<th>Other languages</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (A)</td>
<td>52</td>
<td>0.179%</td>
</tr>
<tr>
<td>French (F)</td>
<td>5</td>
<td>0.017%</td>
</tr>
<tr>
<td>Arabic (AR)</td>
<td>1</td>
<td>0.003%</td>
</tr>
<tr>
<td>German (G)</td>
<td>1</td>
<td>0.003%</td>
</tr>
<tr>
<td>Total other languages</td>
<td>59</td>
<td>0.203%</td>
</tr>
</tbody>
</table>

Source: Vila and Galindo body of data

Concerning the scarce presence of the languages of new immigrants, it must be borne in mind that the research was carried out between 1996 and 1998, years when the percentage of foreign pupils in primary education was around 2%, a percentage far removed from the 12% of the 2006-2007 school year ([www.gencat.cat/education](http://www.gencat.cat/education)). In fact, the sample of schools did not include centres with a high proportion of newcomer pupils. Despite this, 2.4% of children in the sample declared that they used a language other than Catalan or Spanish with at least one member of their nuclear family. This percentage is much smaller in the social network questionnaires: only 1.2% declared that they used languages other than Spanish or Catalan in their everyday relationships outside the home. In other words, outside

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3 The percentages were constructed based on 32 hours of recordings corresponding to 23,638 transcribed speaking turns.
the home, the foreign-language-speaking children in our study adopted the environment's normal language for relationships.

It is more than probable that research such as that described here carried out today would record a greater presence of languages such as Berber, Arabic, Chinese or Romanian. In this sense, it would be quite daring to extrapolate from the data presented here. However, it must be taken into account that the interpersonal use of immigrant languages is in no way proportional to the presence of foreign language speakers in the classroom. Research such as that by Gomàriz (2008a, 2008b) shows that, even in contexts in schools where foreign language speakers exceeded 10% and were almost all of the same origin (in this case Berber), the use of these foreign languages falls back rapidly, not only in relations with classmates but even in relations with brothers and sisters, in favour of the predominant environmental language – in this case Catalan. Meanwhile, confusion between foreign, immigrant or newcomer pupils and foreign-language-speaking pupils must be avoided: to begin with, a good proportion of recently incorporated pupils have Spanish as their initial or habitual language. For example, during the 2006-2007 school year, 43.1% of pupils with non-Spanish passports registered at schools in Catalonia were from Central or South America. Secondly, although a substantial percentage of immigrants do not pass on their languages to their children, in Catalonia there is a growing percentage of children born in the country who have foreign initial languages (Vila 2006). Finally, it is quite probable that a good proportion of foreign language speaking children educated in Catalonia are adopting Spanish as their language for social inter-relation, but it must be recognised that we have very little data to be able to state this with any certainty. In fact, then, everything leads to the conclusion that, in relative terms, the arrival of new immigrants must have increased the presence of Spanish in playgrounds, although it would be bold to state it categorically. In any case, here we will be analysing data from the School and Usage study.

2.3. Declared data, observed data: between perception and reality

The fact that we have declared data on the language principally used with friends and classmates (drawn from the questionnaires) and observed data on linguistic usage during break times (recordings) allows us to test the point to which the perception schoolchildren have of their linguistic practices matches reality.

**GRAPH 2. Declared and observed linguistic choices observed for each linguistic family group.**

![Graph 2](http://www.gencat.cat/llengua/noves/Hivern 2009/6)

As can be seen in graph 2, actual use of Spanish is always higher than the perception. Although only 59% of Spanish speaking children say they normally use Spanish with their friends, in their free time 80% of their speaking turns are produced in Spanish. These figures make it clear that some of the Spanish-speakers who declare themselves to be bilingual in
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their social networks (11%) and some who say they normally relate to others in Catalan (30%) are, in practice, active users of Spanish.

A similar phenomenon occurs with children from Catalan-speaking families and, in a sense, it is perhaps more accentuated: only 12% declare that they actively use Spanish, but 42% of the turns they produce are in Spanish. As in the previous case, declared bilingual usages conceal mainly Spanish linguistic practices. The conclusions that can be drawn from analysing bilingual families follow the lines noted for the other two linguistic groups.

We are looking at a phenomenon that has already been observed in other studies (Vila 1996, Rosselló 2003), but which is now clearly and empirically corroborated, as it can be based on the comparison of declared and observed data for a large enough sample of informants and interactions: some children who use little Catalan – sometimes only isolated words – attribute much more weight to this language in their linguistic usages than it actually has; by contrast, children who use Spanish frequently tend to reduce the presence of this language when they are asked to quantify their linguistic practices. In others words, informants over-value the use of Catalan in declared data: a very important piece of information for sociolinguistic research in the Catalan sphere.

3. The factors explaining linguistic choice

3.1. The role of the family language and social networks on the choices observed

In accordance with the available data, the language for relationships between members of the home largely determines the language normally used during free time. At school, children from both Catalan-speaking and Spanish-speaking families produce and receive more messages in the language which is predominant at home.

However, in this relationship between the family language and the language used at schools, important differences are observed between the two groups: of every 5 turns produced and received by Spanish-speakers, 4 are in Spanish; by contrast, Catalan-speakers only speak and are spoken to in Catalan in 3 out of every 5 turns. The behaviour of bilingual families is close to that of Spanish-speakers: they produce and receive more turns in Spanish (3 out of 5) than in Catalan (graphs 3 and 4).^4^

GRAPH 3. Language of speaking turns produced by each linguistic group of families.

^4^ The statistical tests indicate that the differences observed in the linguistic choices of the three linguistic groups of families are significant (significance level of $\chi^2 = 0.000$). Unless otherwise indicated, the differences are also significant in the following graphs.
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When the data for the family languages of the participants in the conversation is cross-referenced, the point to which the linguistic identity of the interlocutor conditions the choice of language can be seen (graph 5). Interactions between children from Catalan-speaking families are largely carried on in Catalan, and, between Spanish-speakers, they are largely in Spanish. In conversation between bilinguals, both languages can be heard, although Spanish predominates slightly.

Where significant differences in behaviour between Catalan and Spanish-speakers are observed is in the interactions between children with different family languages: so, Catalan-speakers adapt to the language of their Spanish-speaking classmates in 69% of speaking turns, while the Spanish-speakers address the Catalan-speakers in Catalan in only 31% of cases.

The outstanding percentages are undoubtedly due to the rule of convergence to Spanish, confirmed throughout the 20th century in the entire Catalan domain south of the Pyrenees. This rule establishes that Catalan-speakers use Catalan for speaking among themselves and switch to Spanish when it comes to addressing Spanish-speaking or unknown interlocutors,
while Spanish-speakers can use Spanish actively, regardless of the linguistic identity of their interlocutor. However, it must be borne in mind that, although the rule is followed, it is not followed absolutely: not all Catalan-speakers talk to Spanish-speakers exclusively in Catalan (they actively use Catalan in at least 3 out of 10 turns), nor do all Spanish-speakers always address their Catalan-speaking classmates in their own language (they maintain Spanish in 7 out of 10 speaking turns).\(^5\)

Graph 4 includes the data from all the 52 schools analysed. However, if the data is analysed in greater detail, quite different behaviours are observed depending on the environmental linguistic conditions or the demo-linguistic composition of the schools (for more, see Vila and Galindo 2008). So, in schools where the proportion of Catalan-speakers does not exceed 30%, Spanish is mainly used, even in conversations in which both interlocutors are Catalan-speakers. Meanwhile, at centres with more than 70% Catalan-speaking pupils, the use of Catalan predominates. It must be said, however, that, in this latter type of school, Catalan has not penetrated conversations between Spanish-speakers so deeply.

If the language of the home influences the informal linguistic usages of schoolchildren, the predominant language of their social networks conditions them still further. 95% of the speaking turns of children who declare that they mostly use Spanish are actually in that language, and 88% of the turns of those who say they basically use Catalan are spoken in Catalan (graph 6). Those who say they have bilingual social networks in practice speak more Spanish (67% of turns) than Catalan (33%).

**GRAPH 6: Language of speaking turns according to the speakers' social networks**

![Graph 6](image)

Source: Vila and Galindo body of data

### 3.2. The relationship between usage and linguistic competences

The experimental data collected in the project (level of comprehension in Catalan and Spanish among the pupils) allows us to test the point to which linguistic competence and the use of a language are two sides of the same coin. In the study, the improvement in oral knowledge in each language corresponds to an increase in linguistic choice of that language (Graph 7 and 8; the results in the first and last column should be ignored, as they include a low number of speaking turns).

\(^5\) The irregular way in which this rule is followed raises many questions: could the unexpected – according to this rule – use of Catalan be due to the action of the school? Are the new generations innovative on this point? Or is it, perhaps, that the convergence rule was, and is, less far-reaching than Catalan sociolinguistics has tended to state? It must be borne in mind that here, unlike the majority of macro-sociolinguistic studies, we are dealing with recorded rather than declared data. For more on this issue, see Vila and Galindo (in press)
However, when this data is related to other variables taken into account (see the cross-references in Galindo and Vila 2008), it can be seen how important the demo-linguistic environment turns out to be: the use of Catalan exceeding that of Spanish does not depend on linguistic competence in Catalan but rather on the presence and knowledge of the language in the school and social environment.

Graph 7. Language of speaking turns according to the level of oral comprehension in Catalan (from a lower level of comprehension to a higher one)

Source: Vila and Galindo body of data

Graph 8. Language of speaking turns according to the level of oral comprehension in Spanish (from a lower level of comprehension to a higher one)

Source: Vila and Galindo body of data

3.3. Condicions lingüístiques ambientals, del centre i de la docència

The analysis of the data in accordance with the three variables taken into account in the selection of the 52 schools makes it clear that children use quite a lot of Catalan in areas where the declared knowledge of the language is high, but not in schools in areas where it is said that little Catalan is known (graph 9; see table to find out what the codes correspond to).
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Much more Catalan is also heard in the playgrounds of schools attended by a high percentage of Catalan-speakers – that is, 70% or more – and not so much in the playgrounds of centres with a higher proportion of Spanish-speakers (graph 10).

It must be borne in mind, however, that the differences observed depending on the main teaching language are diluted when cross-referenced with the two other variables taken into account.
account in this section. So, the differentiated usages of Catalan and Spanish represented in graph 11 do not so much reflect the teaching language of the schools as the type of school in which each linguistic model predominates: in centres predominantly teaching in Catalan there is a high percentage of Catalan-speaking pupils, and these are schools in areas where a high level of knowledge of the language is declared; the centres that use Catalan and Spanish in more or less balanced proportions have more Spanish-speaking pupils and are distributed in areas where Catalan is less well known.

Leaving aside what can be gleaned from a first glance at the graphs, which is also quite predictable (that is, the fact that the use of Catalan increases as the knowledge and presence of this language in the environment increases), the most important conclusion that can be drawn from the above graphs is the inequality of conditions for the two languages: the use of Catalan in contexts that favour it is lower than the use of Spanish in conditions that are favourable to that language. Note that at centres with more than 70% of Spanish-speaking pupils, almost 94% of speaking turns are in Spanish, while at schools where there are more than 70% Catalan-speakers, only 82% of turns are in Catalan.

3.4. The weight of the variables: mutivariant Analysis

Once the influence of each of the variables on the linguistic choices of Catalan schoolchildren has been analysed, it only remains to determine the variables out of the whole set which are most important in configuring their linguistic practices. To do this, two explanatory multivariant analysis techniques have been applied: discriminant analysis and logistical (see a summary in Galindo 2006).

The application of the multivariant analysis techniques makes it possible to differentiate two sets of variables: (1) those taking into account the language of relations with the non-family and non-formal-education environment and (2) those related to the family language and formal education. There is yet another group of variables, (3) those referring to linguistic competence in Catalan and Spanish, which have not been included in either of the previous sets because it has been considered that they cut across all the variables: achieving good linguistic competence does not depend only on school education but instead is also related to actual use of the language.

The first set of variables (language of relations with the non-family and non-formal-education environment) include the social networks of the speaker and the listener, the linguistic conditions at the centre and the environmental linguistic conditions. These variables are the ones that are shown to be more important in configuring linguistic usages.

The first two variables mentioned (the social networks of the speaker and the listener) include information declared by the interlocutors themselves on the language they normally use outside the home; that is, they are an indicator of perception of own linguistic usage. That in almost all of the three multivariant analyses carried out they should constitute the main factors making it possible to explain the variation in linguistic practices, demonstrates that real and perceived usages are not going in opposite directions; however, the language of social networks does not in itself allow an explanation of all the variation in usages and this indicates that there are certain mismatches between what people believe they do and what they actually do, as can be seen in section 2.3.

The third variable, the linguistic conditions at the school, measures the percentage of Catalan-speakers at the school. We assume that the more Catalan-speakers there are in the same area, the more use they will make of Catalan and, therefore, the percentage representing the linguistic conditions at the centre also measures the opportunities interlocutors will have to maintain social relations in Catalan.

The fourth variable, the environmental linguistic conditions, refers to the knowledge of Catalan the residents of the area declare that they have. As is to be expected, higher percentages of people who say they understand and know how to speak Catalan in the area correspond to greater use of the language at break time.

The second set of variables is that related to family and formal education linguistic usage and includes the family language of the speaker and listener and the linguistic teaching conditions. The inclusion of these variables in the discriminant and logistic regression
functions confirms that the home and classroom language plays a role in configuring linguistic usages, but the position occupied by these variables in these functions (always below the first group of factors) indicates that the role they adopt is a secondary one.

It is clear that, in the age sector analysed, the influence of the home is still important, but it must be borne in mind that children often spend many hours outside the family nucleus. Meanwhile, the adoption of Catalan as the vehicular language for teaching in a good proportion of schools must have affected children's linguistic practices in some way, but it has not managed to entirely modify their linguistic behaviour patterns: Spanish has a considerable presence in school playgrounds and the convergence to Spanish rule is still partially followed.

As for the third group of variables, related to children's linguistic competence, the functions deriving from the multivariant analysis techniques have only included competence in Catalan. This indicates that competence in Catalan is a factor that configures linguistic usages: the higher the degree of comprehension in Catalan, the greater the use of Catalan recorded. This association allows two interpretations: either the habitual use of Catalan encourages the increase of linguistic competence in Catalan or only those who have a good knowledge of Catalan speak the language habitually. By contrast, competence in Spanish does not allow an explanation of children's linguistic practices: all of them obtain average or high scores; the fact that they use Catalan or Spanish must therefore be explained by other factors.

4. Summary and conclusions

The model of joint teaching in Catalan predicted that the extension of Catalan as the vehicular language for teaching would increase knowledge and usage of the language among Catalan schoolchildren. It can now be stated, with few reservations, that the population of Catalonia who have passed through the education system, at least in the last 15 years, understands Catalan and can speak it, write it and read it.

The doubt appears when questions are asked about the levels of comprehension and expression in Catalan achieved by pupils when they complete compulsory education. According to recent studies, these levels are uneven and can be quite low in some sectors of schoolchildren born in Catalonia or who arrived some time ago. Among recently incorporated pupils, the degree of competence in Catalan is clearly insufficient, particularly if compared with that achieved by young newcomers in other languages in other parts of the world.

The other question that must be asked concerns linguistic practices: how is the fact that almost all schoolchildren understand and can speak Catalan translated into everyday interpersonal use? Everything seems to indicate that, at the end of the '90s, a good proportion of pupils were not actively using Catalan in their informal conversations at break time: during their free time, for every speaking turn produced in Catalan there were two in Spanish. The declared data obtained after these results does not allow us to assume that there has been a substantial improvement in the position of Catalan.

Linguistic behaviour patterns at break time largely reproduce linguistic usages in the pupils' non-family and non-formal-education environment. So, the variables that have been shown to be most important in the configuration of their linguistic practices are language of social networks, the percentage of Catalan- and Spanish-speakers studying at the school and the level of knowledge of oral Catalan in the area.

After that, the most important variables are "language habitually used at home" and "principal teaching language at the school". It must be borne in mind, however, that the fact that almost all teaching is received in Catalan, or partly in Catalan and partly in Spanish, does not shift linguistic practices very much one way or the other. Finally, it seems that a high level of linguistic competence in Catalan is related to speaking Catalan; it is not known, however, whether this is a consequence or a cause.

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Mireia Galindo Solé
Departament d’Educati ci
mgalind9@xtec.cat

F. Xavier Vila i Moreno
Universitat de Barcelona
fxvila@ub.edu