The evolution of educational bilingual models and towards the creation of contexts of co-enrollment were initiated in Spain, mainly, by opening the doors of deaf schools to hearing pupils (Apansce, 1998). There was a redefinition of these new schools as now co-existing in the same buildings used previously by deaf children with units of co-enrollment of hearing and deaf pupils together. This generated a more diverse and rich educational context and meant that co-enrollment and bilingual education were closely related from the beginning (Alonso, Rodriguez & Echeita, 2009). The sign bilingual education that we see today in Spain has not been directly through government policy making but instead bottom-up, from school, parents and the deaf community - (Morales-Lopez , 2008). Without formal support, standard guidelines or frameworks and the laissez faire attitude of the educational administration, the first bilingual education experiments were consequently quite difficult. In Spain, only two educational modalities are regulated: mainstreaming and special education and mainstreaming is the most widespread. Typically this is where one or two deaf pupils join an ordinary classroom in an environment of oral communication, and they receive support from teachers for children with special educational needs and from speech therapists.

Officially, bilingual education is regulated legally (Ley 27/2007). In this law, applicable nationally, it is stipulated that "the educational administrations will offer bilingual educational models, which will be of free choice for the deaf, hearing-impaired and deaf-blind students or their parents or legal representatives". However, in practice, there has been no application of this law in any of the 17 autonomous communities in Spain neither is it clear how many schools label themselves bilingual (Muñoz- Baell et al., 2011). In fact often if sign language is used at all, even minimally, it is termed a sign bilingual school.
Bilingual schools in the Madrid region

Currently there are 4 schools with a bilingual approach in the Madrid region. From the existing four special schools for the deaf-, three of them moved towards bilingual education and then, slowly, towards co-enrolment education (15-20 hearing/5 deaf children per classroom). The four schools continue to run special units. They have, therefore, acquired a double identity or status: integration and special education. In order to place a deaf or hard of hearing child in special education or in an integrated setting, a statutory assessment and a statement are required. This is carried out by a multi-professional team, but parents must agree. The fourth bilingual school is a nursery school for children up to 3 years old.

The proportion of children going to the four bilingual co-enrollment schools is up to 20% of deaf school-children (53% of these children have a CI). There are also pupils in these schools who have additional disabilities or social disadvantages and who attend the special units but may also share some activities with the rest of the students. This shows a high degree of diversity in terms of student backgrounds. In the practical organisation of the schools there is a close relationship between the decisions made concerning ‘special education’ and ‘co-enrolment’. When all children enter the infant stage of their education (0-6 years) they receive bilingual input directly and in a co-enrolled context. At the end of this period they are evaluated by a team of psychologists and language specialists and, in agreement with the family, future educational paths are planned for them e.g. continue in a bilingual and co-enrolment setting or another type of education setting.

In each bilingual and co-enrolment classroom there are 5-6 deaf children and 15-20 hearing peers with two hearing co-teachers. This is not just physical sharing of a classroom but also the curriculum and the language of education, meaning deaf/hearing children share the everyday life of the classroom.

What do the schools teach?

Each school has to develop their own curriculum taking into account their own learning objectives and how these are taught in both signed and spoken language. From 0-3 years we do not teach content subjects but instead ‘fields of experience’ (e.g. a special focus on language development). In the second stage (3-6 years) the curriculum is organised around areas. One of the main subjects is “Communication and Representation” which normally would focus on spoken language; however, in the bilingual schools, we include signed and spoken language.
In the primary school (6-12 years) the subjects are more diverse: including science, art, mathematics, PE and foreign languages. Here the focus for teachers is on how to deliver this curriculum in both spoken and signed language in the same classroom. This means deciding on what subjects are taught by which language(s). In all the primary school years we consider LSE to be a communication and educational tool but it has also become a new curriculum area. In order to teach LSE to children we collaborated with the National Centre for Deaf People in Spain to develop a teaching guide (CNSE, 2006). The LSE curriculum includes learning objectives, content and evaluation criteria adapted to suit the different levels of training with the hearing and deaf children. As with other aspects related to signed language in schools, while LSE is officially recognised, this curriculum is not universally adopted.

**How do the schools teach?**

Classrooms are full of different children, including deaf children and such a composition means diversity. Though each of the 4 schools has their own methodological approach, they all share the ideology of inclusive education. Inclusive education is a broad term which refers to a transformational process that promotes an educational system aiming to deliver quality education and that may be adapted to support learners with diverse needs (Ainscow, Booth and Dyson, 2006; Echeita, 2006; Dyson & Millward, 2000). The teacher’s responsibility is to remove barriers to communication and to enable all children to learn (Alonso & Echeita, 2006).

Having two languages means all the children can access the curriculum but this does not mean both languages are in use all the time in every situation. Centres develop linguistic plans which define how each language is used in anticipation of which children are involved in each of the activities. There are moments when both languages are present for everybody (e.g. in large group activities) and other moments when only one language is adopted.

With spoken and written Spanish we use appropriate equipment (e.g. Sound field frequency-modulated systems) and systems such as visual phonics (Juarez, 1985) or cued speech. This practice is based on evidence from language development and reading (Leybaert, Bayard, Huyse & Colin, 2012; Dominguez, Rodriguez & Alonso, 2011; Alegria & Dominguez, 2009; Santana, Torres & García, 2003).

We attempt to give LSE the same status as Spanish at the centres. Accessibility of LSE means we have hearing co-tutors who are fluent signers and deaf staff working together. The signing co-tutor takes responsibility for the use of LSE in all activities (except those where we have plans for using spoken language in isolation). Access for all children is thus
guaranteed by two co-tutors in the classroom all of the time. Each teacher works in different zones and with different languages following the bilingual principle “one person one language” (Saunders, 1988 and Barron-Hauwaert, 2004). This means children are learning language by practically interacting with each other, which resembles the natural processes of language acquisition. This practice means teachers have to pay attention to what activities they are using to promote language learning. The activities should encourage meaningful and real communication and interaction where children learn how to use either LSE or Spanish to perform these functions.

Each of the four bilingual schools in Madrid therefore develops linguistic planning unique to the deaf children in their schools, which can vary between schools but activities may include: spoken language sessions, (using cued speech, signed Spanish and visual/manual phonics), written language workshops, extended activities focusing on meta-phonology or speech and language therapy for improving auditory discriminations. With respect to written Spanish we place a great emphasis on early exposure to different type of written texts (newspapers, underground tickets, narrative and expository text, etc.). In our work on written language development we focus on the constructivist approach (Ferreiro & Teberosky, 1979) and use established psycholinguistic models of reading (Alegria 2003) to guide interventions for deaf children’s meta-phonological awareness (Dominguez, Rodriguez & Alonso, 2011). The constructivist perspective for reading and writing puts a priority on the meaning and function of what children are reading. Additionally all the deaf children in our schools also receive much oral language intervention outside the bilingual schools.

People involved in the work.

We could not carry out all of the previous types of activities without the appropriate team of professionals in place. These include deaf LSE specialists, two co-tutors per class, SALTs and interpreters.

_Deaf LSE specialists:_ are trained in LSE teaching and some are also qualified teachers or infant educators. Across the 4 schools we have 14 of these professionals and they are contracted staff to the school. While this aspect of schools has existed for several years it is only very recently that a job description has been put forward by the educational administration which includes: teaching LSE to deaf pupils, teaching LSE and deaf awareness to hearing pupils, teaching/training of LSE and visual communication for families, training teachers in communication and visual strategies for effective learning and finally promoting deaf cultural activities to the wider school staff.
Co-tutors: Each classroom has two hearing co-tutors who act as language reference points for children. They are always in the classroom except when specialist provision is happening (e.g. English or Music classes). One uses LSE the other Spanish to communicate with the children as well as to teach. Normally they have a background in SALT or LSE. They share the same status in the classroom, which facilitates extremely close collaboration in teaching and planning. Both co-tutors plan the subject area (mathematics, science etc together, as well as teaching them. This means that the signing teachers are not interpreters nor are they interpreting for each other, instead, each teacher is teaching according to the level of the children in the group.

SALTs: are common figures in mainstream schools with deaf children as well as the bilingual schools. Their responsibility is to guarantee the spoken and listening stimulation required for children’s speech and literacy development. Again they have a close collaboration with co-tutors.

Interpreters: in infant and primary levels interpreters work only with the deaf and hearing adult staff in internal meetings or contact with families. In secondary education and beyond they take a more active role in the classrooms.

One of the advantages of sign bilingualism we have attempted to describe here is that we have co-enrolment and special education in the same place. This permits educational flexibility, more participation and exchange of experience. This way we can achieve ‘combined education’ for some children following their needs. With respect to the results emerging for children with early CIs we have been carrying out several projects investigating spoken language and sign language development in children with a cochlear implant in sign bilingual schools (see Pérez, Valmaseda, de la Fuente, Montero & Mostaert 2014); Pérez, Valmaseda and Morgan, 2014 for detailed results). The challenges that remain for the future are: 1. To evaluate if language outcomes continue to grow for the children and 2. Take into consideration plans in Madrid for spoken language bilingualism (English/Spanish) in all schools. In our schools with deaf children these changes mean children may be exposed to three languages (2 spoken and 1 signed) in their educational experience.

References


LEY 27/2007, de 23 de octubre, por la que se reconocen las lenguas de signos españolas y se regulan los medios a la comunicación oral de las personas sordas, con discapacidad auditiva y sordociegas. *BOE (Boletín Oficial del Estado)*, nº 255.


