

# Research

## Variation and Change in BSL number signs

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### Introduction

It is well known in the British Deaf community that Deaf people use different signs for the same things. Number signs, in particular, can look different depending on where you are in the UK. For example, a Deaf person living in Bristol may sign the number SIX with their little finger while a Deaf person living in London may sign the number SIX with their thumb. Signers living within the Manchester region may sign the numbers SIX to NINE with two hands (as shown below) – this numbering system is thought to be unique to the Manchester region.



Residential schools for deaf children have played an important role in the different signs we see in BSL. Deaf people use the number signs from their school long after they leave school. In the last thirty years, a number of Deaf residential schools have been closed and Deaf children are attending mainstream schools instead. The loss of a Deaf residential school in any region may have an impact on the type of signs being used by younger people in the Deaf community.

Our research looks at different number signs used by the Deaf community and tries to link how these signs are related to a signer's age, gender, ethnicity, region and whether a signer has Deaf or hearing parents. We are interested in identifying any patterns of change in BSL's vocabulary to improve our understanding of variation in BSL.



### BSL Corpus Project

The data for this research has been taken from the BSL Corpus Project ([www.bslcorpusproject.org](http://www.bslcorpusproject.org)). This project has collected video recordings from 251 Deaf BSL users from eight regions across the UK (Belfast, Birmingham, Bristol, Cardiff, Glasgow, London, Manchester and Newcastle). Deaf signers who took part in the study were asked to do four things: tell a short story, have a conversation with another Deaf signer, answer questions on sign language and produce their signs for 100 concepts (e.g. colours, days of the week, numbers). In the last of these four tasks, signers were shown 20 numbers in a random order and asked to show us the signs they used for these numbers.

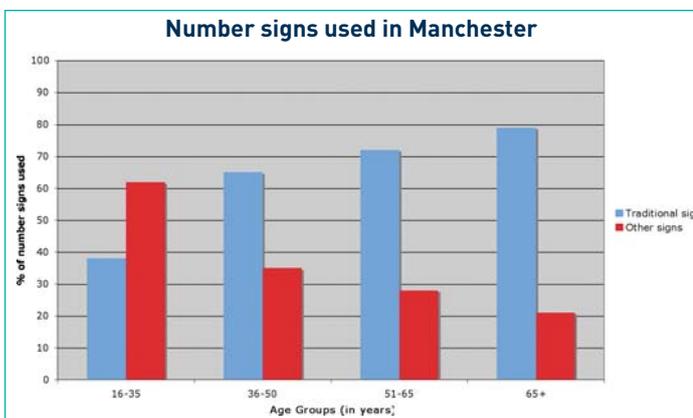
For the first part of this study, we collected number signs for 1 to 20 from a total of 122 Deaf people living in four regions: Birmingham, Bristol, Glasgow and Manchester. With the guidance of a Deaf fieldworker based in each region, we put these number signs into two groups: 'traditional' or 'non-traditional' signs. Traditional number signs were the signs used by the oldest signers in the region.



**What did we find?**

Our research study is investigating if there is any link between the number sign variant used by a signer and a signer's background. We found two important factors influence a signer's choice of number sign: their age and family background.

First, younger signers are using fewer traditional signs than older signers. This can be seen in the graph below, which shows the percentage of traditional Manchester number signs used by different age groups in our research.



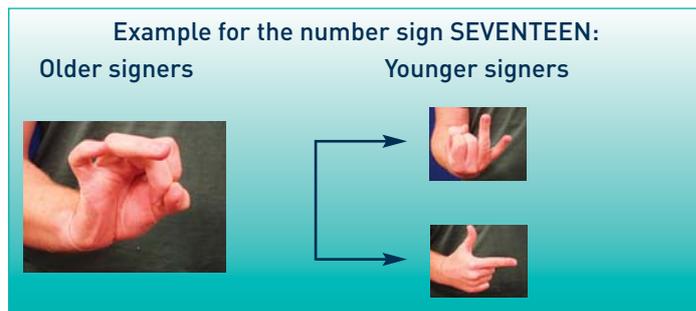
Secondly, the results suggest that Deaf signers with Deaf parents use more traditional number signs than Deaf signers with hearing parents.

So if younger Deaf people are using less traditional number signs than older people, what signs are they using instead? From just looking at the Manchester data, we found that most young signers were using the following signs for SIX, SEVEN and EIGHT (which are the same signs used in London):



While the number signs used in Manchester seem to be becoming more like London signs, this is not the case for younger signers in the other regions. For example, in our Birmingham participants, there is less use of the traditional flexing movement for the numbers THIRTEEN to NINETEEN in

younger signers. Instead, younger signers prefer to use a side-to-side movement for these number signs with either of the following handshapes:



**Conclusion**

Our research so far shows that, just as many Deaf people have been telling us, there is a change taking place in the vocabulary of BSL with younger signers using fewer traditional number signs. This may be as a result of Deaf people travelling more within the UK, the closure of residential schools and the emergence of a national Deaf identity.

As part of the BSL Corpus Project, our research is now investigating number signs in the other four regions: Belfast, Cardiff, London, and Newcastle. In addition, we will be considering variation and change in the signs for foreign countries (e.g. CHINA, FRANCE), signs for UK cities (e.g. BIRMINGHAM, CARDIFF) and colours (e.g. PURPLE, YELLOW).

For more information about the number variation study, please contact **Rose Stamp** ([r.stamp@ucl.ac.uk](mailto:r.stamp@ucl.ac.uk)) and for more information about the BSL Corpus Project, please contact **Adam Schembri** ([a.schembri@ucl.ac.uk](mailto:a.schembri@ucl.ac.uk)) or **Jordan Fenlon** ([j.fenlon@ucl.ac.uk](mailto:j.fenlon@ucl.ac.uk)).

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