BRITISH SIGN LANGUAGE GLOSSARY FOR MATHEMATICS AND STATISTICS

IMA Conference Glasgow
10th June 2015
With thanks to…

Institute of Mathematics & its applications

EDINBURGH MATHEMATICAL SOCIETY

LONDON MATHEMATICAL SOCIETY 150 YEARS
Wider project

- Mathematics
- Physics
- Chemistry
- Biology
- Astronomy
- Geography
- History

- Linked to national curriculum
Team
BSL and English are different languages

- BSL is not English on the hands (SEE/SSE)
- Naturally developing language with own historical idiosyncrasies
- BSL has its own grammar, morphology, phonology – not word for sign – e.g. HAVE NOT SEEN YOU FOR A LONG TIME
- BSL has metaphor, poetry, regional variation (schoolisation)
Historical background to Deaf education

- Milan 1880
- BSL recognition 2003
- BSL Bill Scotland
- 4-15% deaf children use BSL
- Only 9% of ToD have BSL qualifications above Level 2
- Young deaf learners same as young hearing learners in number representation and comparison
- Gap widens as children progress and Maths concepts become more complex, requiring language (Gottardis et al 2011)
Principles

• Deaf leadership: expertise + fluency in BSL
• Broad knowledge in team: mathematics, sign linguistics & teaching
• No initialised signs
• Real life examples of signs in use
• Work from BSL to English not English to BSL
Methodology

• Review any existing signs
• Collect specialist terms
• Create and develop new signs
• Evaluate the new signs with community focus groups
• Film signs, definitions and examples
• Upload clips to SSC website
• Translate all BSL clips into written English
• Collate feedback
Other considerations

- Borrowing (capitalisation, other sign languages)
- Compounding (mean)
- Simultaneity (prime number)
- Simplification (quadratic equation)
- Iconicity (fraction, denominator, nominator)
- Morphological families (mean, mode, median)
Scottish Sensory Centre

› Home

› About the SSC

A-Z Index

A B C
D E F
G H I
J K L
M N O
P Q R
S T U
V W XYZ

› Introduction

› Maths Glossary

› Physics Glossary

› Chemistry Glossary

› Biology Glossary

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› A Biotechnology glossary developed by University of Edinburgh (external link)

› Art glossary by the Tate Galleries (external link)

And for a bit of fun...

Specialist Glossary Gl
SSC Scottish Sensory Centre

BSL Maths Glossary - average

Subject level: Foundation

Scottish Sensory Centre, Moray House School of Education, University of Edinburgh, Holyrood Road, Edinburgh EH8 8AQ
Future Plans

• Continue to develop signs for key terminology and definitions for full range of national qualifications, including Advanced Higher
• Develop signs for other mathematical areas, such as calculus and analysis
• Track number of Deaf students applying for maths related degree courses
• Collaboration with SQA for centralised exam papers in BSL
• Explore the benefits for hearing learners
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