

# A few tips to make digital learning more inclusive for deaf students

Project IMEDiL - Inclusive Mathematics Education based on Digital Learning

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### Objectives

Provide some guidelines to improve the inclusion of deaf students in the digital learning

## A few things you need to know about deafness 1/2...

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- There is not just one type of deafness, but many: from birth, acquired before or after language, profound, severe, mild, etc. For more information, see this CDC page [▶ Link](#)
- Some deaf people communicate using sign language or cued speech.
- Sign languages are real languages and there are several families!
- Cued Speech is a building block based on hand gestures and positions close to the face that helps hard-of-hearing children or children who are deaf better understand a spoken language. The principle is to remove the ambiguity (and therefore reduce the fatigue) of lip-reading. Unlike sign language, it cannot be separated from the spoken language. For instance, cued language for American English [▶ Link](#)

## A few things you need to know about deafness 2/2...

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- Following a course or a discussion requires more energy
- There is unequal access to information, which can lead to anxiety and increased tiredness, as they have to be on constant alert to avoid missing out on information.

⇒ All other things being equal, deaf students have a greater mental workload, anxiety and tiredness. What's more, they may be afraid of being a disturbance by their disability and take a back seat.

**The teacher must be vigilant and pro-actively monitor them individually.**

## For the design of the website...

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- Find out whether the authorities in your country have issued general guidelines for improving accessibility of websites. For instance: general guidelines for digital accessibility given by French authorities (in French) [▶ Link](#)
- The subtitles are good, but with the transcription as well, it would be even better

## If teaching is given in real time...

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- Always discuss with the deaf student beforehand what would be best for them.
- If a sign language interpreter or Cued Language Transliterater is employed, make sure that her image is large enough for optimum visibility.
- If a sign language interpreter is employed, don't hesitate to share your course notes with him/her (and if possible to discuss with them) so that they can identify the technical terms to be interpreted.
- There is still room for improvement in real-time subtitling, especially for technical vocabulary, so don't hesitate to give the student the course notes beforehand.