A few tips to make mathematics teaching more inclusive for deaf teachers

Project IMEDiL - Inclusive Mathematics Education based on Digital Learning

Étienne Bernard

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Objectives

Here are some tips on how to integrate the deaf teacher who has to teach in front of able-bodied students.

Case analyzed

Deaf teacher in front of a group of students without hearing impairment.

- A deaf teacher can handle an undergraduate mathematics class very well, as long as the class is prepared.
- Sign language or cued speech cannot be used, unless students know them (very unusual situation).
- Often students without hearing impairment have not been accustomed to handling communication with deaf people. So a preliminary session must be provided in which the techniques used to reduce or neutralize the difficulties induced by the disability are introduced and explained.
- Some techniques need to be adapted to the type of deafness (for example, deafness from birth, acquired before or after language, profound, severe, mild, etc). For more information, see this CDC page <a href="https://www.communication-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati-communicati

- The great diversity of the deaf world precludes any global strategy that could apply to everyone. So that students and deaf teacher should always discuss beforehand what would be best strategy. A preliminary meeting is hence necessary.
- Especially the first few times, the teacher may feel anxious and inadequate because of the hearing impairment. It is important for the lecturer not to worry about this point, as the upstream preparation of the lessons and the tools used make it possible to organize very effective lessons.

- Since the lecturer may not hear noises, he or she has to turn around very often to check that students are not chatting with each other (which unfortunately happens even in university classrooms) or to check if any students raised their hands to ask a question.
- In the case of mathematics, traditional teaching with chalk and blackboard (or through live writing of the lesson with a tablet connected to a screen) is the preferred solution for many teachers. It forces the teacher to think carefully about what he or she is writing and to have a speed of knowledge transmission more appropriate to the needs of the students than the use of pre-prepared slides. In the case of a deaf teacher, this method is clearly to be preferred.

- It is important that not only the formulas are written on the blackboard, but also the text needed to understand the concepts through reading the blackboard alone.
- The most delicate point is generally spontaneous oral interaction with students, so it's worth raising this point to find out what would help him/her most. This point can require a lot of flexibility.
- For example, when everyone is supposed to wear a mask (as in the first years of the covid pandemic), one can create a group in a social network, so that students could ask the teacher questions without having to remove the mask.