

Co-teaching mathematics in an inclusive middle school: A comic strip didactic study

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Rationale

In the French education system, the “Sections d'Enseignement Général et Professionnel Adapté” (SEGPA) are structures that provide education for secondary school pupils experiencing serious difficulties at school. It is a paradox that there should be a special section for pupils with learning difficulties in a secondary school that aims to be inclusive: these integrative structures do indeed educate pupils in secondary school, but in a “separate” type of education. The latest circular of 2015 on SEGPA stipulates that these sections should be involved in an inclusive movement (Gardou, 2014), while remaining ‘clearly identified as a structure’. It would also become a resource centre for the treatment of educational difficulties for every secondary pupils, not only those from the SEGPA. In an attempt to apply the paradoxical injunction to make coexist a structure and a scheme, the institution recommends the introduction of collective working methods to bring together the secondary school teachers and the specialised school teachers from the SEGPA. Co teaching is explicitly mentioned among the recommendations.

The challenge for SEGPA is to initiate their inclusive shift by taking into account three inseparable dimensions of inclusive schooling: physical, social and epistemic (Lansade, 2021). Concrete measures are being taken to take account of the physical and social dimensions, like moving SEGPA classes from a separate building to shared buildings. But this is often to the detriment of the epistemic dimension. How can the common knowledge of lower secondary school be made accessible to pupils categorised by their difficulty in accessing it?

Theoretical framework

This work addresses this issue by analyzing, from the perspective of the theory of joint action in didactics (Sensevy, 2011). This research has been made with the support of a Cooperative Teaching Engineering (Sensevy & Bloor, 2019).

Research design

The device focuses particularly on mathematics teaching, where a math teacher and a specialized elementary school teacher share the didactic responsibilities of math teaching in a 6th-grade class bringing together non-assigned and SEGPA-assigned students. These professors teach maths together for 4 hours per week. The sessions are prepared jointly during a weekly one-hour meeting. Class sessions are filmed and then analyzed in the form of a research comic (Sousanis, 2015) and graphs, showing the distribution of responsibilities in the class during co-teaching sessions.

Results

By taking the example of a geometric figure reproduction exercise, the analyses show how the teaching duo uses the different collective work modalities offered by co-teaching (Tremblay & Toullec-Théry, 2020). The initial results seem to confirm that the cooperative aspects of co-teaching, notably a strong assumption of symmetry, allow each teacher to fully and freely occupy all areas of the classroom and to imbue them with their professional particularities. Thus, two didactic systems, primary and auxiliary, are observed to be deeply intertwined.

Conclusion

Co-teaching maths in an inclusive 6th-grade class, with a strong cooperative dimension (Sennett, 2012), and an assumption of symmetry between the co-teachers, allows a multiplicity of teaching configurations, thus increasing the accessibility of knowledge for the most fragile pupils.