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CHALLENGING ABLEIST PERSPECTIVES ON THE TEACHING OF MATHEMATICS: A CAPTEAM WORKSHOP

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The MathTASK and CAPTeaM projects see engaging school and university teachers with challenges they are likely to face in class as an effective professional development approach. We design situation-specific tasks that emulate these challenges (such as: fostering mathematical reasoning; strengthening classroom management; enriching use of digital resources; and, improving the inclusion of often marginalised groups of learners) and we engage teachers with these tasks in reflective workshop settings. In this workshop, we will focus on the last of the aforementioned challenges, inclusion. This is the focus of the CAPTeaM project (Nardi, Healy, Biza & Fernandes, 2018), an international partnership and mobility project between institutions in the UK and Brazil and funded by the British Academy (2014-15, 2016-20).

The CAPTeaM project (**C**hallenging **A**bleist **P**erspectives on the **Tea**ching of **M**athematics) sets out from the assumption that, rather than being the consequence of internal, individual factors, disabled students' oft-reported underperformance in mathematics can result from explicit or implicit exclusion from mathematics learning. The project challenges teaching practices that contribute to such exclusion and that may emanate from ableist[1] perspectives on mathematics. The project's aims cohere with the articles of the United Nations *Convention on the Rights of People with Disabilities* (2006) that both the UK and Brazil have signed up to and the project aims to contribute to a hitherto under-researched, yet growing and highly topical, area of research (Healy & Powell, 2013). The project endorses a Vygotskian historical-cultural perspective and elements of embodied cognition (Nardi et al, 2018) and its data consists of written responses and video recorded work on two types of tasks, Type I and Type II, by pre- and in-service teachers of mathematics.

In Type I tasks, participants engage with classroom episodes that evidence mathematical contributions which are made by students with a physical disability (e.g. are visually or hearing impaired), have the potential to shift classroom mathematical discourse towards creatively unexpected turns and may bring learning benefits to all in class. Said episodes are selected from the databases of the Brazil-based (Rumo à Educação Matemática Inclusiva) and UK-based (e.g. Stylianidou & Nardi, 2019) project partners. In Type II tasks, participants engage in small groups with solving a mathematical problem while at least one of them is temporarily and artificially deprived of access to a sensory field or familiar channel of communication. Work on both types of tasks concludes with sharing reflections on the experience in plenary discussion and with a brief exposition on the project's hitherto data analysis, findings and plans for the future.

[1] Ableism**:** "a network of beliefs, processes and practices that produces a particular kind of self and body (the corporeal standard) that is projected as the perfect, species-typical and therefore essential and fully human. Disability then, is cast as a diminished state of being human." (Campbell, 2001, p.44)

This workshop will engage participants with tasks of Type I and II. It will last 90 minutes as follows:

Planned timeline	**Topic**	**Material / Working format / responsible person**
What is CAPTeaM? (**5m**)	The project lead presents a brief introduction to the CAPTeaM project.	Nardi, brief exposition
A CAPTeaM activity (Type I) (**20m**)	Participants engage with a CAPTeaM Type I activity.	Nardi, Biza; participants work in small groups
Plenary discussion I (**15m**)	Participants share the work generated in small groups with the whole group and reflect on the experience.	Nardi, Biza; whole group discussion
A CAPTeaM activity (Type II) (**20m**)	Participants engage with a CAPTeaM Type II activity.	Nardi, Biza; participants work in groups of three
Plenary discussion II (**15m**)	Participants share the work generated in the groups with the whole group and reflect on the experience.	Nardi, Biza; whole group discussion
CAPTeaM findings: the present and the future (**5m**)	The project lead outlines project findings so far and maps plans for the future.	Nardi, brief exposition
Q&A, reflections and evaluation (**10m**)	Participants ask questions and reflect on/evaluate the experience of participating in the workshop.	All

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