

Supplemental Material 2

Inclusion and Exclusion Criteria

Domain	Included	Excluded
Population	Students in global undergraduate (Bachelor) Mathematics and Science (MS) <i>discipline</i> courses. MS discipline courses in this review compromises the following subject disciplines: mathematics, physics, chemistry, biology, and geology.	Students in all other levels and types of global education and courses, including: MS courses for graduate (Master) students MS courses <i>primarily</i> for non-major MS students MS courses <i>primarily</i> for students belonging to MS subject disciplines <i>other than</i> mathematics, physics, chemistry, biology and geology (e.g. computer science). MS courses <i>primarily</i> for students in professional studies (such as pre-service teachers, engineers, nurses, doctors, pharmacists, veterinarians, etc.).
Intervention (exposure)	<i>Highly structured</i> in-class Co-operative Learning (CL) elements in groups of 3-6 people based on one or more of the guiding CL principles: positive interdependence, individual accountability, heterogeneity, social skills, group reflection and interaction, e.g., Jigsaw, Think-Pair-Share, POGIL Group Formation, Group Roles, STAD, TAI, etc.	Co-operative Learning (CL) in pairs (2 people) or in groups of 7 people or more <i>only</i> , Collaborate, Team-Based Learning method(s) and out-of-class group-work based primarily on looser structures and other principles including Peer-Led (Team) Learning, Study Groups, Peer-Assisted Learning, Flipped Classroom, Problem-Based Learning, Online/Digital/Mobile Learning, Clickers and similar Interactive Response Systems, Learning Communities, Project-Based Learning, Collaborative Writing, etc.
Study focus	Empirical examination of the relationship between CL elements and undergraduate MS student outcomes	Non-empirical examination of the relationship between CL elements and undergraduate MS student outcomes or empirical examination of relationships between other variables
Study type (nature)	Primary study	Secondary study (reviews of other studies)
Study type (method)	Both quantitative and qualitative findings	
Study information about intervention	Study includes information about the amount and type of exposure/CL elements used	Study excludes information about the amount and type of exposure/CL elements used

Study information about outcome(s)	Study includes information about the amount and type of outcome(s) the students experience	Study excludes information about the amount and type of outcome(s) the students experience
Date of study	The study is published from 2010 to January 2020	The study is published before 2010 or after January 2020
Language	English, Norwegian, Danish, Swedish	All other languages
Publication type	Peer reviewed and non-peer reviewed articles and papers, books, book chapters, and grey literature	All other types of publication, including abstracts and conference papers