

Supplementary Files: A taxonomy of teaching methods and their use in health professions education: A Scoping Review Protocol

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Supplementary File 1: Checklist aligned to PRISMA-SCR guidelines

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	Title doc. Pg 1
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	Pg 1
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	Pg 2
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	Pg 4
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	Title Doc. Pg 1
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	Pg 6
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	Pg 6
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	Reference Doc. Appendices Pg
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	Pg 6
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	Pg 7
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	Pg 8

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Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	Pg 8
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	Pg 8
PRILIMINARY RESULTS			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	Pg. 6
Synthesis of results	15	Summarize and/or present the charting results as they relate to the review questions and objectives.	Pg 8
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	This will be included in final publication
Limitations	20	Discuss the limitations of the scoping review process.	Pg 8
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	Pg 9
FUNDING			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	Title Doc. Pg. 1

Supplementary File 2: Search Terms and their combinations (for ERIC search string)

Search Block 1

TI (teach* OR train* OR educat*)

Search Block 2

DE "Educational Technology" OR DE "Instructional Systems" OR DE "Performance Technology" OR DE "Teaching Methods" OR DE "Educational Methods" OR DE "Educational Strategies" OR DE "Psychoeducational Methods" OR DE "Instruction"

TI AB TI ("teaching method*" OR "teaching type*" OR "teaching form*" OR "teaching strateg*" OR "teaching intervention*" OR "teaching technique*" OR "teaching setting*" OR "training method*" OR "training type*" OR "training form*" OR "training strateg*" OR "training intervention*" OR "training technique*" OR "training setting*" OR "academic training" OR pedagog* OR handbook* OR "how to teach")

Search Block 3

DE "Innovation" OR DE "Audiovisual Instruction" OR DE "Case Method (Teaching Technique)" OR DE "Classroom Techniques" OR DE "Clinical Teaching (Health Professions)" OR DE "Conventional Instruction" OR DE "Creative Teaching" OR DE "Demonstrations (Educational)" OR DE "Direct Instruction" OR DE "Discussion (Teaching Technique)" OR DE "Experimental Teaching" OR DE "Flipped Classroom" OR DE "Individualized Instruction" OR DE "Lecture Method" OR DE "Microteaching" OR DE "Multimedia Instruction" OR DE "Oral Communication Method" OR DE "Peer Teaching" OR DE "Precision Teaching" OR DE "Questioning techniques" OR DE "Reflective teaching" OR DE "Scaffolding (Teaching Technique)" OR DE "Teacher Workshops" OR DE "Team Teaching" OR DE "Training Methods" OR DE "Tutoring" OR DE "Tutor Training" OR DE "Web Based Instruction" OR DE

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"Workshops" OR DE "Virtual Classrooms" OR DE "Diagnostic Teaching" OR DE "Group Instruction" OR DE "Coaching (Performance)" OR DE "Instructional Films" OR DE "Instructional Leadership" OR DE "Integrated Activities" OR DE "Large Group Instruction" OR DE "Role Playing" OR DE "Simulation" OR DE "Small Group Instruction"

TI AB (new teach* OR innovat* teach* OR innovat* method* OR "small group*" OR "meet the expert*" OR tutorial* OR "hands on" OR "problem-based" OR "discussion group*" OR "project-based*" OR "group project*" OR "psychomotor skills training*" OR "case method*" OR "case study method*" OR "feedback session*" OR debat* OR Quiz* OR brainstorm* OR "large group*" OR lecture* OR presentation* OR "hot topic*" OR webinar* OR seminar* OR symposi* OR "case based stud*" OR "panel discussion*" OR video* OR "Ted talk" OR "knowledge test*" OR "facilitated Question & Answer*" OR "classroom teach*" OR "poster presentation*" OR simulation* OR "role-play*" OR interview* OR "patient simulat*" OR "peer teaching*" OR "flipped classroom*" OR forum* OR debate* OR game* OR gaming OR "skill demonstration*" OR "skills demonstration*" OR "mobile teaching app*" OR "social media" OR "scenario based" OR "practice-based teach*" OR "bed-side teach*" OR "ward-round*" OR "grand round*" OR "community teach*" OR "practice exercise*" OR "shadow expert*" OR "interactive teach*" OR "inquiry-based" OR "programmed instruct*" OR "study assignment teach*" OR "audiovisual instruction*" OR "creative teaching" OR "direct instruction*" OR "experimental teaching" OR "individualized instruction*" OR "individualised instruction*" OR microteaching OR "micro-teaching" OR "multimedia instruction*" OR "peer teaching" OR "precision teaching" OR "reflective teaching" OR scaffolding OR "web based instruction*" OR tutoring OR workshop* OR "virtual classroom*" OR "diagnostic teaching" OR "group instruction*" OR "formative assessment*" OR debrief* OR "information and communication technolog*")

Search Block 4

DE "Education" OR DE "Medical Education" OR DE "Graduate Medical Education" OR DE "Nursing Education" OR DE "Pharmaceutical Education" OR DE "Veterinary Medical Education" OR DE "Adult Education" OR DE "Continuing Education" OR DE "Allied Health Occupations Education" OR DE "Medical Schools" OR DE "Medical Students" OR DE "Professional Development" OR DE "Faculty Development" OR DE "Professional Occupations" OR DE "Teaching (Occupation)"

TI AB ("professional education" OR "nonprofessional education" OR "undergraduate education" OR "post graduate education" OR "vocational education" OR "continu* education" OR "continu* professional development" OR "education deliver*" OR "education method*" OR "education technique*")

Supplementary file 3: Preliminary data extraction list

- | |
|---|
| <ul style="list-style-type: none"> - Background information (author, date, data source, setting, number of learners) - Type of study (if peer review) or grey literature - Details of the target learners, where appropriate - Details of the teachers/instructors/faculty, where appropriate - Discipline (psychology, health education....) - Details of method(s) including name, other contextual information - The educational aim, where appropriate - Description or summary of presented method(s) - Delivery of method (online, onsite, blended, tablet, phone, ...) - Details of the learning environment - Assigned level of credibility - Ethics information <ul style="list-style-type: none"> o Approved by ethics committee o Informed consent obtained o Declaration of potential conflict of interest |
|---|

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Supplementary file 4: Potential classification structures for teaching methods sources from online searches

<i>Classification structures</i>			
Search findings 1	Search findings 2	Search findings 3	Search findings 4
Teacher-centred	Online	Project-based learning	Large-group
Learner-centred	Onsite	Competency-based learning	Small- group
High-technology	Blended	Action-based learning	1 to 1 teaching
Low-technology	Clinical practice	Strategic learning	Individual project work

Supplementary file 5: Data plan with expected outputs

Research Question	Analysis questions	Expected Outputs
1. What teaching methods are used to facilitate knowledge and skills to learners?	How are methods named? What are the specific characteristics of the method? (eg presentation, present, lecture, didactic teaching could be considered features of a lecture).	To identify 'X' methods and report on the discipline.
2. How are teaching methods described and used in the literature?	How are teaching methods described?	An overview of presented methods linked to descriptions.
3. Are characteristics of teaching methods well aligned across academic disciplines?	What characteristics are used to describe the methods? What are the similarities and differences across presented methods and strategies? What specifications are the listed methods associated with (online, onsite, distance, simulated, small-group, large group, mobile, action-based, teacher-centred etc....).	An overview of characteristics of each method.
3. How can teaching methods be presented and organised in a meaningful way?	Can methods be grouped by specific characteristics? How are presented methods used and in what setting?	A taxonomy for presented teaching methods or strategies.