**Appendix A – Search Criteria**

#

Embase

Results from 8 Oct 2021

1

exp simulation training/ or exp simulation/ or exp simulator/ or cadaver/ or exp anatomic model/

437,419

2

(biosimulat\* or simulat\* or telesimulat\* or augmented-realit\* or (virtual adj2 (simulat\* or realit\* or surg\* or haptic\* or practice or practise or train\* or perform\*)) or vignette\* or role-play\* or standardized-patient\* or standardised-patient\* or patient-actor\* or mechanical-patient\* or positioning-doll\* or bench-train\* or bench-model\* or task-trainer\* or training-box or cadaver\* or (anatom\* adj1 model\*) or surgical-model\* or moulage\* or manikin\* or mannikin\* or mannequin\* or harvey or sim-man or mistvr or (mist adj1 vr) or vitalsim or simsurgery or laerdal or mock-code\* or crisis-resource-management or crisis-event-management or crew-resource-management or knot-tying or sutur\* or team-training or ((clinical or physical or patient) adj1 exam\*) or ((procedur\* or skill\* or experiential or psychomotor or motor-skill\* or dexterity) adj1 (lab or laboratory or training or practice or practise or perform\*)) or (skill\* adj1 acqui\*) or skills-course or skills-curricul\* or technical-skill\* or ((procedur\* or surg\* or

1,274,887

3

1 or 2

1,377,271

4

exp learning/ or continuing education/ or curriculum/ or educational technology/ or in service training/ or interdisciplinary education/ or interprofessional education/ or exp medical education/ or "outcome of education"/ or problem based learning/ or exp teaching/ or virtual learning environment/ or exp health student/ or exp paramedical education/ or teaching/ or clinical competence/ or nursing competence/ or professional competence/ or ed.fs.

1,076,602

5

(instruct\* or learn\* or train\* or educat\* or faculty or staff-development or inservice\* or in-service\* or orientation\* or intern or interns\* or residency or residencies or resident or residents or fellow\* or clerkship\* or housestaff or house-staff or novice\* or perform\* or skill\* or competen\* or proficien\* or student\* or curricul\* or teach\* or knowledge or master\* or self-confidence or self-efficacy).ab,kf,ti,dq.

8,038,981

6

4 or 5

8,402,295

7

3 and 6

607,975

8

(evaluat\* or assess\* or compar\* or impact\* or effect\* or validat\* or improv\* or measure\* or reliab\* or outcome\* or random\* or control\* or pretest\* or pre-test or pre-post or chang\* or cohort\* or success-rate\* or scor\* or questionnaire\*).ab,hw,kf,ti.

25,184,187

9

7 and 8

538,319

10

limit 9 to conference abstract

129,750

11

9 not 10

408,569

12

augmented reality/ or virtual reality/ or "internet of things"/

23,276

13

(((augmented or virtual or mixed or hybrid or blend\* or combin\*) adj3 realit\*) or screen-based or head-mounted-display or HMD-VR or internet-of-things).ab,kf,ti,dq.

24,993

14

12 or 13

33,734

15

9 and 14

16,665

16

11 and 14

13,703

#

Medline

Results from 8 Oct 2021

1

exp Simulation Training/ or exp computer simulation/ or augmented reality/ or virtual reality/ or Cadaver/ or exp Models, Anatomic/ or Crew Resource Management, Healthcare/ or exp Resuscitation/ed or exp Life Support Care/ed

344,091

2

(biosimulat\* or simulat\* or telesimulat\* or augmented-realit\* or (virtual adj2 (simulat\* or realit\* or surg\* or haptic\* or practice or practise or train\* or perform\*)) or vignette\* or role-play\* or standardized-patient\* or standardised-patient\* or patient-actor\* or mechanical-patient\* or positioning-doll\* or bench-train\* or bench-model\* or task-trainer\* or training-box or cadaver\* or (anatom\* adj1 model\*) or surgical-model\* or moulage\* or manikin\* or mannikin\* or mannequin\* or harvey or sim-man or mistvr or (mist adj1 vr) or vitalsim or simsurgery or laerdal or mock-code\* or crisis-resource-management or crisis-event-management or crew-resource-management or knot-tying or sutur\* or team-training or ((clinical or physical or patient) adj1 exam\*) or ((procedur\* or skill\* or experiential or psychomotor or motor-skill\* or dexterity) adj1 (lab or laboratory or training or practice or practise or perform\*)) or (skill\* adj1 acqui\*) or skills-course or skills-curricul\* or technical-skill\* or ((procedur\* or surg\* or

1,046,371

3

1 or 2

1,212,536

4

exp Learning/ or exp curriculum/ or exp Educational Measurement/ or exp inservice training/ or exp teaching/ or exp Education, Professional/ or exp Students, Health Occupations/ or exp Schools, Health Occupations/ or exp Faculty/ or ed.fs. or exp Health Occupations/ed or exp Patient Care Team/

1,050,007

5

(instruct\* or learn\* or train\* or educat\* or faculty or staff-development or inservice\* or in-service\* or orientation\* or intern or interns\* or residency or residencies or resident or residents or fellow\* or clerkship\* or housestaff or house-staff or novice\* or perform\* or skill\* or competen\* or proficien\* or student\* or curricul\* or teach\* or knowledge or master\* or self-confidence or self-efficacy).ab,kf,ti.

6,047,580

6

4 or 5

6,457,321

7

3 and 6

479,421

8

exp Educational Measurement/

157,687

9

(evaluat\* or assess\* or compar\* or impact\* or effect\* or validat\* or improv\* or measure\* or reliab\* or outcome\* or random\* or control\* or pretest\* or pre-test or pre-post or chang\* or cohort\* or success-rate\* or scor\* or questionnaire\*).ab,hw,kf,ti.

19,348,210

10

8 or 9

19,388,087

11

7 and 10

415,346

12

augmented reality/ or virtual reality/ or "Internet of Things"/

4,134

13

(((augmented or virtual or mixed or hybrid or blend\* or combin\*) adj3 realit\*) or head-mounted-display or HMD-VR or internet-of-things).ab,kf,ti.

19,438

14

12 or 13

20,179

15

11 and 14

10,205