SECTION 1B: TYPE OF PUBLICATION

☐ Book ☐ Official publication ☐ Thesis ☐ Editorial ☐ Interview
☐ Journal article ☐ Report ☐ Comment ☐ Guideline ☐ Lecture
☐ Other _____

SECTION 2: STUDY CHARACTERISTICS

Intervention (ie portfolio)

6 Type of portfolio. The portfolio was:
☐ electronic ☐ combination of electronic/paper
☐ paper ☐ unclear

7 Reflection (i.e self-appraisal). Reflection on performance/experience by the students was:
☐ required ☐ combination
☐ voluntary ☐ not required ☐ unclear

8 Reflection (i.e self-appraisal). Reflection on performance/experience by the students was:
☐ private (student use only) ☐ combination
☐ for sharing (with students/staff) ☐ unclear

9 Duration. Students completed the portfolio over:
☐ > 1 academic year ☐ approx. 1 academic year
☐ approx. 1 semester ☐ < 1 semester (*state length*) _____

10 Completion. Completion of the portfolio was:
a. Compulsory ☐ Yes ☐ No ☐ Unclear
b. Supervised by staff ☐ Yes ☐ No ☐ Unclear

11 Content choice. Content for the portfolio was:
☐ Prescribed by staff ☐ Mixture
☐ Freely chosen by student ☐ Unclear

12 Content types. The portfolio included:
a. Learning journal/diary ☐ Yes ☐ No ☐ Unclear
b. Clinical case reports ☐ Yes ☐ No ☐ Unclear
c. Assignments ☐ Yes ☐ No ☐ Unclear
d. Other (please describe) _____

13 Assessment. Assessment of the portfolio was:
☐ not done ☐ summative
☐ formative ☐ combination of both ☐ unclear

Study population

14 Subjects (i.e. students involved in the study*)
Profession: _____

Group	Description Course	Year	Number Recruited	Not Reported	Number Completed	Not Reported	Percent Completed	Not Reported
Intervention/ test group								
Comparison (1) (if applicable)								
Comparison (2) (if applicable)								

* Note: this is the number of students in the study (test and control for comparative studies), rather than the number responding to a questionnaire or other evaluation tool. Response rate to a questionnaire is a quality indicator relating to completeness of data.

Setting and duration

15 Setting:

☐ non-clinical/classroom-based
☐ clinical setting (*including 1ry and 2ry care, community*)
☐ combination
☐ unclear

16 Study dates and duration (*e.g. 1999-2001 usually different from year of publication*) _____

17 Country of study _____

Study design

18 Research design: non-comparative studies:

NB: use these definitions to categorise the research, even if the author uses a different name to describe their study

Type	Definition	Possibly	Yes
Audit	Verification of the legality, fidelity, efficiency or feasibility of procedures, operations, transactions or expenditures, often by an independent person or agency.	☐	☐
Action research	A cyclical enquiry process that involves diagnosing a problem situation, planning action steps and implementing and evaluating outcomes. Involves self-reflection by practitioners.	☐	☐
Case study/ series	A detailed analysis of a person or group, especially as a model of medical, psychological or social phenomena. An instructive example. Single or multiple cases, presents and represents reality, can be inferential, can include participants and non-participants.	☐	☐
Ethnographic	First hand observation of people in their natural contexts. Can be used to establish current practice as a guide to future investigation. Unstructured approach to data gathering – rather than testing a hypothesis, key features evolve through ongoing analysis.	☐	☐
Cross-sectional	Examination of the relationship between outcomes and other variables of interest (including interventions) as they exist in a relevant population at one particular time.	☐	☐

19 Research design: comparative studies

Experimental studies: Comparative studies in which the use of different interventions is allocated by the researcher

Type	Definition	Possibly	Yes
Randomised controlled trial	Random allocation of participants to intervention or control groups, with follow up to examine differences in outcomes between the two groups.	☐	☐
Experimental study without randomisation	The allocation of participants to different intervention groups is managed by the researcher, but is not randomised. Allocations are not concealed from those involved in the study.	☐	☐

Observation studies with control group: Comparative studies in which the use of different interventions among participants is not allocated by the researcher (it is merely observed)

Type	Definition	Possibly	Yes
Cohort study	Follow-up of participants who have received an intervention (that is not allocated by the researcher) to examine the differences in outcomes compared to a control group	☐	☐
Case-control	Comparison of intervention rates between participants with the outcome (cases) and those without the outcome (controls)	☐	☐

Observation studies without control group

Type	Definition	Possibly	Yes
Before and after	Comparison of outcomes in study participants before and after an intervention and those without the outcome (controls)	☐	☐

20 Research design: other (*please describe*)

_____

_____

21 Data sources/collection methods (*select all that apply; if in doubt describe and flag for further discussion*)

- ☐ Exam results: assessment of the portfolio itself
- ☐ Exam results: written papers (e.g. MCQ)
- ☐ Exam results: clinical examinations (e.g. OSCE)
- ☐ Simulation/role play
- ☐ Other _____

Student/staff opinions

- ☐ Interview
- ☐ Focus group
- ☐ Observation
- ☐ Questionnaire
- ☐ Self-assessment
- ☐ Unsolicited feedback (e.g. postings to student web discussion, email correspondence)
- ☐ Other _____

Miscellaneous

- ☐ Patient/client outcomes
- ☐ Opinion of author
- ☐ Other _____

SECTION 3: QUALITY ASSESSMENT

22 Quality checklist: all studies (note 'Data' includes both qualitative and quantitative data)

Quality indicator	Detail	Yes	No	Unclear
Research question	Is the research question or hypothesis clearly stated?	☐	☐	☐
Study subjects	Is the subject group appropriate for the study being carried out (number, characteristics, selection, and homogeneity)?	☐	☐	☐
'Data' collection methods	Are the methods used (qualitative or quantitative) reliable and valid for the research question and context?	☐	☐	☐
Completeness of 'data'	Applies to both qualitative and quantitative studies. Have subjects dropped out? Is the attrition rate less than 50%? For questionnaire based studies, is the response rate acceptable (60% or above?)	☐	☐	☐
Control for confounding	Have multiple factors/variables been removed or accounted for where possible?	☐	☐	☐
Analysis of results	Are the statistical or other methods of results analysis used appropriate?	☐	☐	☐
Conclusions	Is it clear that the data justify the conclusions drawn?	☐	☐	☐
Reproducibility	Could the study be repeated by other researchers?	☐	☐	☐
Prospective	Does the study look forwards in time(prospective) rather than retrospective	☐	☐	☐
Peer review	Has the paper been peer reviewed?	☐	☐	☐
Ethical issues	Were all relevant ethical issues addressed	☐	☐	☐
Triangulation	Were results supported by data from more than one source?	☐	☐	☐

Comments _____

_____

23 Quality checklist: additional criteria for qualitative studies

Quality indicator	Detail	Yes	No	Unclear
Researcher perspective/bias	Do the researchers discuss their own perspectives and potential biases?	☐	☐	☐
Questioning techniques	Do the researchers discuss how questions were phrased and probed?	☐	☐	☐
Participant agenda	Was their appropriate opportunity for participants to raise their own agenda?	☐	☐	☐
Negative cases	If the authors are proposing a theory, have they shown how negative cases fit?	☐	☐	☐

Comments _____

_____

24 Quality checklist: additional criteria for comparative studies

Quality indicator	Detail	Yes	No	Unclear
Methods valid	Have the methods used been tested previously to check whether they are valid for this type of study, i.e. that they actually measure what they say they measure?	☐	☐	☐
Comparability at baseline	Are intervention and control populations similar at the start of the study?	☐	☐	☐
Randomisation	Is an appropriate method used to allocate subjects randomly to groups in order to control bias?	☐	☐	☐
Concealment	Are the allocations to groups unknown to researchers/participants			
Blinding	Blinding afterwards – e.g. OSCE examiners blind to which students were in which group.	☐	☐	☐

Comments _____

_____

SECTION 4: RESULTS

25 Outcomes

Outcomes assessed	Pre-determined	Not pre-determined	Positive change	No change	Negative change	Statistically significant	Unclear/ not stated	Data suitable for meta-analysis
Knowledge and/or understanding								*Tick if yes*
• Achievement of course objectives	☐	☐	☐	☐	☐	☐	☐	☐
• Other (*please describe*) _____	☐	☐	☐	☐	☐	☐	☐	☐
Skills								
• Reflection/self-awareness	☐	☐	☐	☐	☐	☐	☐	☐
• Decision-making	☐	☐	☐	☐	☐	☐	☐	☐
• Ability to learn independently	☐	☐	☐	☐	☐	☐	☐	☐
• Communication skills	☐	☐	☐	☐	☐	☐	☐	☐
• Patient management (including dx and tx)	☐	☐	☐	☐	☐	☐	☐	☐
• Clinical examination	☐	☐	☐	☐	☐	☐	☐	☐
• Practical procedures	☐	☐	☐	☐	☐	☐	☐	☐
• Other (*please describe*) _____	☐	☐	☐	☐	☐	☐	☐	☐
Attitudes/behaviours								
• Views of learning & teaching	☐	☐	☐	☐	☐	☐	☐	☐
• Willingness to take responsibility for own learning	☐	☐	☐	☐	☐	☐	☐	☐
• Self-confidence	☐	☐	☐	☐	☐	☐	☐	☐
• Satisfaction with learning process	☐	☐	☐	☐	☐	☐	☐	☐
• Professionalism	☐	☐	☐	☐	☐	☐	☐	☐
• Empathy with patient experience	☐	☐	☐	☐	☐	☐	☐	☐
• Other (*please describe*) _____	☐	☐	☐	☐	☐	☐	☐	☐
Effect on other learning								
• Enhancement of learning in other fields (*please specify*) _____	☐	☐	☐	☐	☐	☐	☐	☐
• Detraction from learning in other areas (e.g. due to time taken up with portfolio work) (*please specify*) _____	☐	☐	☐	☐	☐	☐	☐	☐

26 Level of impact (modified Kirkpatrick scale)

☐	1a	Participation	learners' views on the learning experience (e.g post questionnaire)
☐	2a	Modification of attitudes/ perceptions	change in attitudes or perceptions between participant groups towards the intervention (e.g. difference between pre and post questionnaire attitudes)
☐	2b	Modification of knowledge or skills	e.g. difference between performance in pre-post tests
☐	3	Behavioural change	the transfer of learning to the workplace (clinical setting) OR willingness of learners to apply new knowledge or skills
☐	4a	Change in organisational practice	wider changes in the organisation/delivery of care, attributable to the educational programme
☐	4b	Benefit to patient/clients	improvement in the health and wellbeing of patients/clients as a direct result of the educational programme

27 Useful quotations etc. which may inform discussion section of final report
(highlight text in the article and indicate page here, no need to write out).