



Reviewer checklist curriculum integration of virtual patients

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About this checklist

This checklist has been developed to characterize the curricular integration of virtual patients (VPs) in detail by a reviewer. It comprises a comprehensive list of possible factors influencing VP curricular integration, and focuses on those supposed to foster clinical reasoning.

The document includes the name and date of the reviewer, 12 items to specify the curricular integration of VPs in general, and the checklist itself containing 24 items clustered into five subsets.

One or two reviewers are recommended to complete one checklist per course or specific scenario.

The checklist is intended to help an independent reviewer to capture explicitly the affordances of a course dealing with VPs. Combined with the student questionnaire this checklist enables us to verify if a deliberate assembly of constituents of combining VPs with other teaching activities fosters the intended activities of clinical reasoning. In addition it informs us how to improve VP curricular integration for clinical reasoning.

Name of reviewer:

Institution:

Date:

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Definition of VP Session

Teaching session in which students **work through virtual patients** (VPs).

(Could be self-study, seminars, small group sessions...)

Definition of corresponding teaching event (CTE)

Teaching event which corresponds to a VP session, **without directly working with a VP case**.

(Could be a lecture, seminar, group study, bedside-teaching, high fidelity simulation...)

Course design

1. VP Session & Corresponding Teaching Event Scenarios

A	VP session without a corresponding teaching event <ul style="list-style-type: none">- Total number of VPs available:- Comments:
B	VP session after a corresponding teaching event <ul style="list-style-type: none">- Number of VPs used in each session:- Comments:
C	VP session before a teaching event <ul style="list-style-type: none">- Number of VPs used in each session:- Comments:
D	VP work as summative assessment <ul style="list-style-type: none">- Total number of VPs used:- Type of assessment:- Comments:
E	Other use of VPs: <ul style="list-style-type: none">- Total number of VP's used:- Comments:

2. Co-ordination of Content	Did the corresponding teaching event inspire the creation of artefacts for the VP session?
	If so, what kind of artefact? E.g., Notes
	Did the VP session inspire the creation of artefacts for the corresponding teaching event?
	If so, what kind of artefact? E.g., Notes
	Time allocation: What _____% was spent in VP sessions? What _____% was spent?

3. Type of VP session		Individual Study	Pair study	Small group	Seminar	Other
	A					
	B					
	C					
	D					
	E					

4. Type of corresponding teaching event		Individual Study	Pair Study	Small group	Seminar	Other
	A					
	B					
	C					
	D					
	E					

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5. Communication:

During the VP session:

Instruction – student:

	CMC Synchronous	CMC Asynchronous	Face to Face	None
A				
B				
C				
D				
E				

CMC = Computer Mediated Communication

Student – student:

	CMC Synchronous	CMC Asynchronous	Face to Face	None
A				
B				
C				
D				
E				

During the corresponding teaching event:

Instructor – student:

	CMC Synchronous	CMC Asynchronous	Face to Face	None
A				
B				
C				
D				
E				

Student – student:

	CMC Synchronous	CMC Asynchronous	Face to Face	None
A				
B				
C				
D				

	E				
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6. Education of staff	<p>Was training offered for CTE teachers? Yes/No</p> <p>What kind?</p> <ul style="list-style-type: none"> - Workshop - Written material - Other: <p>Content of training?</p>
	<p>Was training offered for CME teachers? Yes/No</p> <p>What kind?</p> <ul style="list-style-type: none"> - Workshop - Written material - Other: <p>Content of training?</p>
	<p>Was training offered for VP-Session teachers? Yes/No</p> <p>What kind?</p> <ul style="list-style-type: none"> - Workshop - Written material - Other: <p>Content of training?</p>

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<p>7. Accessibility / Flexibility</p>	<p>Student access to VPs:</p> <p>Location:</p> <ul style="list-style-type: none"> - From any computer on campus? - Only from certain computers? - From remote computers? <p>Time:</p> <ul style="list-style-type: none"> - 24 hour access - Access during specified hours - Access only during VP session
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<p>8. Summative assessment of VP content</p>	<p>What kind of assessment:</p> <ul style="list-style-type: none"> - Multiple choice questions (MCQ) - Short menu - Long menu - Other: <p>Please describe how VPs are used for assessment:</p>
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<p>9. Summative assessment of VP content by VPs</p>	<p>What kind of VP assessment questions:</p> <ul style="list-style-type: none"> - Multiple choice questions (MCQ) - Short menu - Long menu - Other: <p>Please describe how VPs are used for assessment:</p>
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<p>10. Intended target group</p>	<p>Medical student in the _____th year</p> <p>Resident's training:</p> <p>Continuing medical education:</p> <p>Other:</p>
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<p>11. Main learning objective (e.g., clinical reasoning communications)</p>	
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<p>12. Description of scenario(s) in own words (if needed)</p>	
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II. VP-Curricular-Integration-Checklist

Please respond using the following 5-point scale:

Example: While working on this case, I felt as if I were the doctor caring for this patient.						
Strongly disagree	-----				Strongly agree	Not applicable
1	2	3	4	5	6	
Comment:						

A. Teaching presence

Categories include: Information, time allocation and sequencing, assessment, accessibility/flexibility and facilitation.

Information

13. Students receive sufficient information about the way VPs are integrated into the course. How are the students informed? [Free text]

14. Students are informed about which VP sessions correspond to which teaching events.

15. Students are informed the possibility of discussing with other students and teachers via an online discussion forum, online chat or email.

Time allocation and sequencing

16. Students had fixed blocks of time in their schedule for the VP sessions.

Co-ordination of content (applicability of these questions depends on questions 3 and 4)

17. When CTE is after VP session:

The CTE is effective for refining student's clinical reasoning of topics addressed in the VP session. Why? [Free text]

18. When CTE is after VP session:

Students are asked to make an artefact during the VP session which can be used or discussed in the following CTE.

19. When CTE is before VP session:

Students are asked to make an artefact (e.g., taking notes) during the CTE which they can use during the VP session.

20. When VP session alone:

The VP session is effective in refining student's clinical reasoning skills regarding topics addressed in the VP. Why? [Free text]

21. The content and structure of VPs and 'corresponding teaching events' were co-ordinated and implemented in a way to create the most meaningful use of time. Explain why if you agree:

Assessment

22. Virtual patient learning objectives, instruction and assessment are well aligned, in terms of content and methods.

(Concept of constructive alignment, Biggs 1996).

Facilitation

23. Teachers are taught how to provide elaborated feedback on student's clinical reasoning skills during face to face sessions. If yes, how?

24. teachers are taught how to provide elaborated feedback on student's clinical reasoning skills online.

25. Teachers are taught to encourage students to create a short summary of the patient's problem using medical terms.

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26. Teachers are taught to encourage students to interpret the data presented critically.

27. Teachers are taught to encourage useful reading habits (e.g., students should read comparatively about at least two diagnostic hypotheses of a VP).

28. Teachers are taught to use special questioning strategies (e.g., open-ended questions) to reveal the development level of the student concerning clinical reasoning skills.

B. Cognitive presence

29. Teachers are taught to ask students explicitly about which findings support or refute each diagnosis in the differential diagnosis during the corresponding teaching events or VP sessions.

30. Teachers are taught to ask students to discuss clinical reasoning concerning the VPs with other students and/or a teacher during the CTE or VP sessions.

31. Teachers are taught to ask students explicitly to discuss clinical reasoning concerning the VPs with other students and/or a teacher during CTE or VP sessions.

32. The mix of VP-sessions and corresponding teaching events is well suited to stimulate discussions on clinical reasoning.

C. Social presence

33. Teachers are taught how to create a good climate for learning.

E.g., eye contact, relaxed body posture, using gestures, smiling, humour, addressing students by name, praising students work (Rourke et al, 2001).

D. Learning effect

(Category included: Learning success)

34. Overall, the combination of VP sessions and corresponding teaching events is very well suited for foster clinical reasoning in the target group.

35. Overall, the combination of VP sessions and corresponding teaching events is very well suited to prepare a students of the target group to care for a real life patient with this complaint.

E. Overall judgment

36. Overall, the combination of VPs sessions and corresponding teaching events is very well suited to enhance learning in the target group.

F. Open-ended questions

37. Special weakness of the overall VP integration:

38. Special strengths of the overall VP integration:

39. Other comments:

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