

Table 1
Standards for QQuality Improvement Reporting Excellence in Education: SQUIRE-EDU

Text section and item name	SQUIRE item description	SQUIRE-EDU extension description
Notes to authors	<p>The SQUIRE guidelines provide a framework for reporting new knowledge about how to improve healthcare.</p> <p>The SQUIRE guidelines are intended for reports that describe system level work to improve the quality, safety, and value of healthcare, and used methods to establish that observed outcomes were due to the intervention(s).</p> <p>A range of approaches exists for improving healthcare. SQUIRE may be adapted for reporting any of these.</p> <p>Authors should consider every SQUIRE item, but it may be inappropriate or unnecessary to include every SQUIRE element in a particular manuscript.</p> <p>The SQUIRE glossary contains definitions of many of the key words in SQUIRE.</p> <p>The Explanation and Elaboration document provides specific examples of well-written SQUIRE items, and an in-depth explanation of each item.</p> <p>Please cite SQUIRE when it is used to write a manuscript.</p>	<p>The SQUIRE-EDU extension of the SQUIRE guidelines provides a framework intended to increase the completeness, transparency, and replicability of published reports that describe systematic efforts to improve health professions education.</p> <p>They apply to all learning settings (e.g., classroom, simulation, clinical, etc.).</p> <p>The guidelines encourage the description of the process and context of educational change, use of iterative cycles, and use of data over time.</p> <p>Authors should consider every SQUIRE and SQUIRE-EDU item, but it may be inappropriate or unnecessary to include every SQUIRE and SQUIRE-EDU element in a particular manuscript.</p> <p>Not all items have an EDU extension. If there is no EDU extension, use the SQUIRE item. If there is an EDU extension, it may be used on its own or in conjunction with the SQUIRE item.</p> <p>Educators use a range of systematic methods to make education and healthcare demonstrably better. SQUIRE-EDU may be adapted for reporting any of these methods.</p> <p>Please cite SQUIRE-EDU when it is used to write a manuscript.</p>
Title and abstract	<p>1. Title See P1L1-2.</p> <p>2. Abstract See P2-3L24-53.</p> <p>a. Provide adequate information to aid in searching and indexing</p> <p>b. Summarize all key information from various sections of the text using the abstract format of the intended publication or a structured summary such as: background, local problem, methods, interventions, results, conclusions</p>	<p>EDU 1: Indicate that the manuscript concerns efforts to improve health professions education systems and learning</p> <p>EDU 2: Keywords include a focus on education and learning</p>
Introduction: Why did you start?	<p>3. Problem description See P5L94-98.</p> <p>4. Available knowledge See P4-5L70-98.</p> <p>5. Rationale See P4L83-85, P5L87-89, P18L373-378.</p> <p>6. Specific aims See P5L101-105.</p>	<p>EDU 3: Description of the nature and significance of the need for change in the local educational system</p> <p>—</p> <p>EDU 5: Identify the guiding theory (learning, change, implementation, or other) and how it aligns with the need for change in the local educational system</p> <p>—</p>
Methods: What did you do?	<p>7. Context See P6L110-122.</p> <p>8. Intervention(s) See P8L159-161, P8-9L169-180.</p> <p>9. Study of the intervention(s) See P7L131-133, P10L201-206, P11L225-239.</p> <p>a. Description of the intervention(s) in sufficient detail that others could reproduce it</p> <p>b. Specifics of the team involved in the work</p> <p>a. Approach chosen for assessing the impact of the intervention(s)</p> <p>b. Approach used to establish whether the observed outcomes were due to the intervention(s)</p>	<p>EDU 7a: Contextual elements for learning (e.g., setting, program, people, resources, social, geopolitical influences) before the intervention(s)</p> <p>EDU 7b: The interrelationships between the contextual elements and the local educational and healthcare systems before the intervention(s)</p> <p>EDU 8a: Description of the primary interventions and co-interventions (e.g., faculty or tool development)</p> <p>EDU 8b: Specify how the interprofessional education team (e.g., faculty, staff, patients, and learners) was part of the design of the intervention</p> <p>EDU 9a: Approach used to understand the impact of the educational intervention(s) on the learner and beyond, such as impact on patients, families, the community, faculty, educational program, or the healthcare system</p> <p>EDU 9b: Approach to assess the fidelity of and the iterative changes to the planned intervention(s) over time</p>

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(Continued)

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10. Measures See P9L182-188, P10L201-206.	a. Measures chosen for studying processes and outcomes of the intervention(s), including rationale for choosing them, their operational definitions, and their validity and reliability b. Description of the approach to the ongoing assessment of contextual elements that contributed to the success, failure, efficiency, and cost c. Methods employed for assessing completeness and accuracy of data	EDU 10: Quantitative and/or qualitative measures chosen to assess the educational processes and outcomes on learners, faculty, educational programs, patients, families, healthcare systems, or communities
11. Analysis See P11L218-239.	a. Qualitative and quantitative methods used to draw inferences from the data b. Methods for understanding variation within the data, including the effects of time as a variable	—
12. Ethical considerations See P12-13L242-265.	Ethical aspects of implementing and studying the intervention(s) and how they were addressed, including, but not limited to, formal ethics review and potential conflict(s) of interest	EDU 12: Approaches to address vulnerability of learner participants
Results: What did you find?		
13. Results See P14-16L284-337, P10L199.	a. Initial steps of the intervention(s) and their evolution over time (e.g., time-line diagram, flow chart, or table), including modifications made to the intervention during the project b. Details of the process measures and outcome c. Contextual elements that interacted with the intervention(s) d. Observed associations between outcomes, interventions, and relevant contextual elements e. Unintended consequences such as unexpected benefits, problems, failures, or costs associated with the intervention(s) f. Details about missing data	EDU 13a: For each educational intervention and co-intervention, provide details about iterative modifications based on the assessment of the learning
Discussion: What does it mean?		
14. Summary See P16-17L338-352, P17L353-357.	a. Key findings, including relevance to the rationale and specific aims b. Particular strengths of the project	EDU 14: Connect the findings to the guiding theory (learning, change, implementation, other) used to direct the change in the local educational system
15. Interpretation See P16-17L345-356.	a. Nature of the association between the intervention(s) and the outcomes b. Comparison of results with findings from other publications c. Impact of the project on people and systems d. Reasons for any differences between observed and anticipated outcomes, including the influence of context e. Costs and strategic trade-offs, including opportunity costs	EDU 15c: Include the impact of the intervention(s) on learners, faculty, educational program, patients, families, healthcare systems, or communities
16. Limitations See P18-19L380-401.	a. Limits to the generalizability of the work b. Factors that might have limited internal validity such as confounding, bias, or imprecision in the design, methods, measurement, or analysis c. Efforts made to minimize and adjust for limitations	—
17. Conclusions See P19-20L412-419.	a. Usefulness of the work b. Sustainability c. Potential for spread to other contexts d. Implications for practice and for further study in the field e. Suggested next steps	EDU 17b: Scalability of the work to other learners and contexts EDU 17d: Lessons learned for clinical practice, education, and policy
Other information		
18. Funding See P13L271-272.	Sources of funding that supported this work. Role, if any, of the funding organization in the design, implementation, interpretation, and reporting	—