Committee for Accreditation of
Healthcare Simulation Programs

Simulation Research Accreditation Standards

Companion Document

2021 Standards Revisions

This Companion Document has been designed to help you with becoming accredited. Primarily it serves these purposes:

1. Provide insight and information for applicant programs.
2. Explain and describe the types of evidence expected to meet each of the Standards.
3. Ensure clarity for what is provided prior to the site visit as part of the accreditation packet.

IMPORTANT: the descriptions and evidence provided are NOT prescriptive. The SSH Accreditation Standards are designed to allow Simulation Programs in any setting to apply. It is recognized that there are many ways to achieve outcomes as well. As such, any evidence listed is representative of the types of information that has been acceptable. This companion document should not be considered a prescriptive list of items all Programs must complete, but rather a tool to help each Program identify how to best meet each standard. Should you have any questions about any of the Standards or criteria, or feel that they do not fit your Program for any reason (e.g., cultural), please contact the SSH Accreditation Program at accreditation@ssih.org.

DOCUMENT ELEMENTS

The standards for each area of Accreditation are broken into different elements:

<table>
<tr><td colspan="2">▪ Standard Area Description (in the dark blue area)
– High-level description of the overall content in the area of accreditation (Core-ARTSF)</td></tr>
<tr><td colspan="2">1. Section header (boldfaced type with a number in the light blue area)
– The title for the section that groups items together, each area of accreditation has its number of sections.</td></tr>
<tr><td colspan="2">a. Standard statement (italicized with a lower-case letter in the light blue area)
– This is the standard. Evidence should be provided based on the criteria in the subsections below.</td></tr>
<tr><td>i. Criterion (items listed in the white area in the left column of the table)
– These are the items that must be provided to demonstrate meeting the standard.</td><td>▪ The column (in the white area) to the right side of the Criterion in the companion document is where the Program can find information about the intent of specific criteria; and examples, clarifications, and descriptive information that will help the Program respond to each standard and criterion.</td></tr>
</table>

TERMINOLOGY

- **DEMONSTRATE**: This term is consistently used for overall Standards statements. “Demonstrate” means the Program must show how the standard is met (through the criterion). There are often many ways to demonstrate meeting individual criterion.
- **DESCRIBE**: This term is used to indicate that a narrative is sufficient as evidence to meet a particular criterion. If additional documentation is requested in addition to the description, the criterion will specify with the following phrase: “*Describe and provide supporting documentation*.”
- **DOCUMENT**: This term is used to indicate that some form of documentation must be provided as evidence to meet a particular criterion. Examples of this could include providing a list of items such as equipment, a policy, and procedure, a floorplan, simulation design forms, etc. If a description is required in addition to the documentation requested, the criterion will specify the following phrase: *“Describe and provide supporting documentation.”*
- **PROGRAM:** The term “Program” refers to the simulation center or organization that is applying for accreditation. The Program could refer to a stand-alone facility, a collaborative simulation consortium, or the Program could be part of an overarching organization.
- **PROGRAM DIRECTOR***:* All SSH Standards and Criteria use the term “Program Director” to describe the person with primary authority for the

Simulation Program. The person in this role, however, does not need to have the official title of "Program Director."

RESEARCH STANDARDS AND MEASUREMENTS

Accreditation in the area of Research is limited to those Programs that demonstrate regular and recurring research activities that demonstrate expertise in the development, implementation, evaluation, and dissemination of research in the area of simulation.

- Programs seeking Accreditation in Research must demonstrate two years of active research in the area of simulation.
- Activities that demonstrate an active research program include (but are not limited) to developing and implementing formal research protocols specifically focused on simulation as a technique and as a pedagogy.
- Simulation can also be used as a research tool "testbed" to evaluate usability of medical devices, new technology, clinical workflow redesign, facility design, etc.
  - This design capability of simulation provides the healthcare industry a unique tool to assess and mitigate potential patient harm before clinical implementation, reduce development cost and improve time to market.
- Submission of research activities is encouraged for peer-reviewed publications that expand the field.

The seven sections of the Research Standards are :

(1) Research Activities, (2) Research Activity Design, (3) Qualified Researchers, (4) Evaluation and Improvement, (5) Research Collaboration (6) Compliance, and (7) Ethics.

1. SIMULATION RESEARCH ACTIVITIES *a. The Simulation Program has an intentional and credible commitment to simulation-specific Simulation Research activities.* – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe the process and provide supporting documentation that links the Simulation Research activities to the Program's mission, vision, and/or strategic planning.	▪ The criterion intends to demonstrate that the Program's Simulation Research activities are linked to the mission, vision, and/or strategic plan. ▪ Simulation Research should be considered an essential component of the Program's overall goals. ▪ The description of the process: – Should be in alignment with Program mission, vision, and strategic planning and – Should describe how Simulation Research activities are chosen and/or assigned in a way that is consistent with the Program's goals.

ii. Document: Provide documentation of up to three (3) Simulation Research activities delivered or conducted by the Program.	▪ This criterion intends to demonstrate that the Program has evidence of Simulation Research activities utilizing a standardized process. ▪ Simulation Research activities can be included that are at various stages of development and completion. However, there must be evidence of continuing Simulation Research, and completed Simulation Research must be within the past five (5) years. ▪ Documentation should include typical forms and material which are a part of Simulation Research activities. Items comprising the Simulation Research activities could include, (but are not limited to): – Research design and methods – Abstract – Research question – Research goals – Preliminary suppositions and implications – Conclusions – Other items as appropriate

b. The Simulation Program has an established record of organizational and/or financial support for Simulation Research. – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe and provide supporting documentation on the Program's organizational and financial commitment to Simulation Research.	▪ This criterion is intended to demonstrate the organizational and financial commitment made by the Program or organization to ensure a quality program of Simulation Research. ▪ Provide supporting documentation to demonstrate the financial commitment to the simulation-focused research program. ▪ Examples may include (but not limited to): – FTE support for simulation-specific research. – Investment in statistical support. – Equipment necessary for Simulation Research. ▪ If financial support is from outside the institution, provide supporting documentation. ▪ Detailed descriptions of financial commitments are not necessary. Line items or summaries of financial support will suffice.

c. *The Simulation Program has a designated individual (s) responsible for providing oversight of the healthcare Simulation Research program* – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Document: Provide an accreditation biosketch for the individual(s) responsible for oversight of Simulation Research activities.	▪ Using the SSH accreditation biosketch template, provide an accreditation biosketch for the individual or individuals responsible for oversight of Simulation Research activities. ▪ Information provided in the biosketch should be specifically directed toward the person's experience, publishing, and/or work in the realm of *healthcare simulation and healthcare Simulation Research.* ▪ The biosketch should not be a full curriculum vitae of the person's experiences and/or work outside of healthcare simulation. ▪ The biosketch of the responsible individual(s) should demonstrate, as applicable, formal research training, Simulation Research experience, and Simulation Research publications in peer-reviewed journals.
ii. Describe and provide supporting documentation for the role and responsibilities of the individual(s) responsible for oversight of Simulation Research activities.	▪ Provide a narrative description of how the individual(s) responsible for Simulation Research activities has the role of oversight for these activities. ▪ The person(s) designated for Program Simulation Research oversight need not have an official human resource (HR) or institutional title of the same. However, the role of the individual in overseeing Simulation Research should be clear to the Program and its affiliated users. ▪ This could be demonstrated in a variety of ways including (but not limited to): – Job description clearly outlining roles and responsibilities of the position – Designated time allocation to Simulation Research – Expertise in healthcare simulation activities – Leadership role in the Program's Simulation Research committee – Letter from the supervisor documenting dedicated effort and accountability for the Simulation Research program.

iii. Describe and provide supporting documentation that the individual(s) responsible for oversight of Simulation Research activities has dedicated time *(at least 20% recommended)* for oversight of Simulation Research activities.	▪ This criterion is intended to demonstrate that the individual(s) responsible for Simulation Research activities has sufficient time dedicated to overseeing the Program's activities. ▪ The individual responsible for administering the Simulation Research Program may be in a different department within the institution, external to the simulation program, but should demonstrate dedicated time to simulation-related research. ▪ Letter from the supervisor documenting dedicated effort and accountability for the Simulation Research program would be acceptable evidence.

d. The Simulation Program has evidence of Simulation Research activity, including publication and/or presentation of Simulation Research findings in peer-reviewed forums demonstrating a continuum of efforts focused on healthcare simulation. – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Document: Provide a list of presentations involving Simulation Research within the past 24 months at local, regional, national, and/or international meetings or conferences (*maximum of 10*).	▪ This list should include: – Title of presentation – Name of meeting – Date of meeting – Location of meeting/virtual – Presenters – Type of presentation (e.g., poster, podium, etc.) ▪ Grouping by category may be helpful. The reviewers may use this list to choose presentations to explore, cross-reference, or double-check.
ii. Document: Provide a list of peer-reviewed publications involving Simulation Research within the past 24 months *(maximum of 10)*.	▪ This list should include: – Title and date of publication (article, or chapter) – Journal or Book – Authors – Page Numbers ▪ Grouping by Simulation Research category may be helpful. The reviewers may use this list to choose publications to explore or cross-reference the Program's Simulation Research work.

iii. Document: Provide a list of Simulation Research activities (current and past) that have not been presented or published in peer-reviewed publications *(maximum of 10).*	▪ This list should include: – Title and date of the Simulation Research project – Primary investigator and co-PIs (if applicable) – Period, or proposed duration of the study – Status of study (e.g., in progress, finished, etc.). ▪ Grouping by Simulation Research category may be helpful. The reviewers may use this list to choose publications to explore or cross-reference the Program's Simulation Research work ▪ Current Simulation Research must be included, even at the initiation stage. The reviewers would like to see all activities, irrespective of stage or completion. The Program could even submit a list of proposed activities but should make it clear that these are just proposed.

2. SIMULATION RESEARCH ACTIVITY DESIGN *a. The Simulation Program designs Simulation Research activities using best practices.* – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe the process of Simulation Research activities design and development.	▪ The Simulation Research activity design refers to the overall strategy that you choose to integrate the different components of the study coherently and logically, thereby, ensuring you will effectively address the Simulation Research problem; it constitutes the blueprint for the collection, measurement, and analysis of data. ▪ The design process can include (but is not limited to): – Research question – Conceptual framework – Aims and approach – Quantitative, qualitative, or mixed-methods research – Selection of participants – Data collection methods – Procedures to collect data – Data analysis strategies

ii. Document: Provide a list of Simulation Research activities that follow the design process (maximum of 10).	▪ This criterion intends to demonstrate that Programs utilize a standard design process when developing Simulation Research activities. Programs should select a maximum of ten activities that reflect this standard process. ▪ Select activities that are most reflective of the variety of Simulation Research activities conducted by or through the Program.
iii. Describe and provide supporting documentation for the process to ensure that simulation experts are included in the design of Simulation Research activities.	▪ This criterion intends to demonstrate that Programs utilize experts in simulation-based education and/or design when developing Simulation Research activities. ▪ In some instances, research experts and simulation design experts can be the same person. However, for some Programs, this is not the case. In situations where they are not the same, a description is required that demonstrates that simulation experts are a key component of the research strategy. ▪ Provide a description and, if possible, documentation of the composition of the study team in the list of Simulation Research activities provided. ▪ If utilized, descriptions and supporting documentation of the mentoring/coaching process for the study team from simulation experts are requested.

3. QUALIFIED SIMULATION RESEARCHERS *a. The Simulation Program has access to qualified Simulation Researchers* – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe how the individuals who are Simulation Researchers with the Program are deemed qualified for their role.	▪ This criterion intends for the Program to delineate who develops and/or conducts Simulation Research activities within or through the Program.
ii. Document: Provide SSH accreditation bio-sketches for the most active Simulation Researchers (Max of 5).	▪ This criterion intends to determine the quality, experience, and training of the Program's most active Simulation Researchers. ▪ The SSH Accreditation Biosketch should be used. The biosketch should highlight Simulation Research experience and expertise. ▪ Curricula vitae for key Simulation Researchers should not be included. ▪ Though 5 (max) biosketches should be included in this application, biosketches for all key Simulation Researchers should be available for onsite review.

iii. Document: Provide a list of Simulation Research-related professional development activities attended by those involved in Simulation Research.	▪ This criterion intends to demonstrate that Simulation Researchers are involved in ongoing professional development activities related to Simulation Research. ▪ Examples of professional development could include (but are not limited to): – Conferences – Round tables – Journal clubs – Online training – Workshops
iv. Describe and provide supporting documentation that Simulation Program Staff (that are not Simulation Research experts) involved in Simulation Research have appropriate training and/or continuing education in Simulation Research design.	▪ In the event that Simulation Program Staff are involved or utilized in Simulation Research activities, it is important that they receive specific Simulation Research training. This training should be described/documented here. ▪ Examples of could include (but are not limited to): – IRB training modules – institutional research training modules – grant writing workshops – Online, commercial research courses ▪ A list of training opportunities that support the development of the Simulation Program Staff in Simulation Research should be included here.

4. EVALUATION AND IMPROVEMENT *a. The Simulation Program has mechanisms in place to evaluate, review and update* Simulation Research *activities at least annually.* – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe and provide supporting documentation for how Simulation Research activities are evaluated systematically and routinely.	▪ The primary purpose of the criteria within this section is to determine if the Program demonstrates that evaluation and improvement processes are in place for the OVERALL Simulation Research Program. It is understood that evaluation is a key component of individual research activities. The intent here is to determine that the Simulation Research Program is evaluating and improving, as necessary, the following: – Simulation Research activities being conducted by the Program are in alignment with the mission, vision, and strategic plan of the Simulation Program. – Simulation Research is being conducted within the policies and procedures of the overall Program. – As is the case for the Simulation Program in general, evaluation of the Simulation Research Program should be evaluated using a standardized, cyclical, quality-management approach that is constantly seeking improvement in processes. ▪ The narrative description provided should discuss the process and frequency for evaluating Simulation Research activities, as well as who is involved in the evaluation process. ▪ Examples of documentation to assist in demonstrating that evaluation is conducted systematically and routinely could include are (but are not limited to): – Policies and procedures that outline the process for evaluation and the methods to ensure the policy is followed. – Annual Simulation Research report illustrating the evaluations that have taken place, and the responses made to those evaluations. – Quarterly to Bi-annual Simulation Program Research Committee review meeting minutes documenting the discussions had about the evaluation process and any changes made based on those evaluations.

ii. Describe and provide supporting documentation of changes implemented to the overall Simulation Research Program based on the evaluation process (maximum of five).	▪ The description should demonstrate changes that were made to the OVERALL Simulation Research Program based on the evaluation and review process. ▪ The supporting documentation should provide evidence that evaluation and changes are made in an ongoing process. ▪ Provide supporting documentation of any changes that have been made over the last 24 months. ▪ Examples of an overarching Simulation Research Program evaluation process where changes were made could include (but are not limited to): – The Simulation Program's oversight committee determined that two research activities being conducted within the Program were not in alignment with the mission and vision of the Program due to the fact that the research being conducted was not related to healthcare simulation. Therefore, the activities were reassigned to an outside department of the larger organization. – A Simulation Program reviewed the hours of work required from the Program's Simulation Operations Specialists on three of the research activities being conducted by the Program kept them from being able to conduct other duties necessary for overall Program goals. Therefore, the Program Director requested additionally as needed staffing hours to fulfill the necessary roles of the research. A plan for additional evaluation of the roles and hours utilized would be conducted in two months to determine if the additional PRN staffing alleviated the strain on resources. – The Simulation Program's Research Coordinator reviewed the publication success rate of Simulation Research being conducted through the Program over the past two years. Only one out of eight research activities had successfully been published, and only three had been submitted for publication. In conjunction with the Simulation Research oversight committee, a plan of action was developed to provide further training to Simulation Researchers and Program Staff on how to successfully develop Simulation Research materials for publication. Further evaluation and needed redress of the plan of action would be conducted in six and twelve months.

5. SIMULATION RESEARCH COLLABORATION a. *The Simulation Program's Simulation Research activities promote collaborative relationships and engagement internal and external to the Program.* – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe and provide supporting documentation of any collaborative Simulation Research relationships within the last 24 months that included collaborators external to the Simulation Research program.	▪ Many Simulation Research opportunities can be improved through collaboration with individuals, departments, and organizations outside of the Simulation Program. The key is that the Simulation Research Program is contributing to the intellectual property in the collaborative research project. ▪ Simulation Research Staff may not be well-versed in a particular methodology or topic being studied. In this case, the Simulation Research staff is expected to seek out experts and resources from within or outside of their institution. ▪ Examples of this type of collaborative and/or cooperative Simulation Research should be included in the response to this criterion. ▪ The list may include (but is not limited to): – Other collaborating Simulation Research Programs – Other non-simulation-specific research programs – Outside experts in simulation or non-simulation-based research – Departments within the larger organization that are not necessarily associated with the Simulation Research Program. ▪ Descriptions and/or documents provided should include the name(s) of the project, dates, and roles of the individuals, departments, or organizations. A list or spreadsheet would be helpful for Reviewers as they are examining the documentation. ▪ While a program should demonstrate 24 months of collaborative and/or cooperative Simulation Research, the applicant can provide a more extensive list if applicable. ▪ Collaboration may be internal to an institution (e.g., other departments) or could be external (e.g., with other Simulation Programs).

b. The Simulation Program has evidence of mentoring related to Simulation Research This is the standard statement. – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe how Simulation Research mentorship is conducted through the Program.	▪ Mentorship is an essential component of a successful Simulation Research Program and provides for sustainability for the future of the Program. The Program should provide a description of the processes for developing and maintaining mentorship related to Simulation Research. ▪ Provide any policies and procedures that outline the structure of mentoring relationships for Simulation Research. This may include (but is not limited to): – Details of time commitments of mentor/mentee pairs – Oversight responsibilities of the mentor – Mentee accountability and responsibilities – Details that discuss the time, resources, financial support, and staffing support involved in the mentorship process.
ii. Describe and provide supporting documentation for any mentor/mentee Simulation Research pairs (Max of 5) facilitated by the Simulation Program in the last 24 months. Include a brief description of the associated Simulation Research for each mentor-mentee relationship.	▪ Mentors do not need to be employed or have an academic appointment in the institution requesting accreditation. ▪ Demonstrate that the mentor is qualified and has dedicated time to mentor Simulation Researchers. ▪ Mentees could be novice simulation researchers outside the Simulation Program.

6. COMPLIANCE a. The Simulation Program is compliant with accepted Simulation Research standards and/or processes. – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Document: Provide policies and procedures related to Simulation Research conducted through the Program.	▪ All policies and procedures related to Simulation Research that have not been included in other Simulation Research criteria should be referenced here. These should be detailed enough to demonstrate compliance with all local, regional, country, and national rules and regulations. ▪ A policy regarding data storage should be present. However, the response to Core Criterion 2.c.i.6 may be sufficient if all Simulation Research-related data is maintained by the Simulation Program. ▪ In the event some or all Simulation Research data is not maintained by the simulation Program, the policies, and procedures for data storage at the external individual/location should be included. In this case, a letter from these external individuals/locations should be provided as well.
ii. Describe and provide supporting documentation on how the Program maintains compliance with applicable national, regional, and/or institutional research standards.	▪ The Program should describe a process by which it ensures all Simulation Research activity is compliant with applicable research standards. ▪ Onsite, reviewers may ask to see documentation that Simulation Research activity is compliant with applicable research standards. ▪ Terminology for compliance activities varies by country, the Program should identify which standard or process is used (e.g., IRB in the U.S.)

7. ETHICS a. The Simulation Program is committed to ethical Simulation Research. – This is the standard. Evidence should be provided based on the criteria in the subsections below.	
i. Describe how the simulation program ensures individual(s), involved in Simulation Research, are operationalizing ethical standards.	▪ This criterion intends for the Program to demonstrate the guiding principles utilized for ethical Simulation Research, and how they are operationalized into practice. ▪ The Program should describe the process to ensure that Simulation Research is conducted with honesty and integrity. Items that could be included (but not limited to): – Honesty in collecting and reporting data – Process for collecting and following informed-consent procedures – Respect for confidentiality and privacy – Respect for intellectual property – Determining and reporting conflicts of interest – Discussions of beneficence and nonmaleficence – Process for accountability ▪ Integration of the SSH Code of Ethics in the Simulation Research policies and procedures could be referenced. ▪ The key aspirational values (integrity, transparency, mutual respect, professionalism, accountability, results orientation) important to the practice of simulation are integrated into the Simulation Research Programs policies and procedures.