

Table S1. Common types of current nursing research training programs, limitations of these programs, and potential solutions for addressing these limitations.

Common types of current nursing research training programs	
Lectures, conferences, workshops, short-term training programs, and journal clubs	
Limitations	Solutions
Unmet needs in the training contents	<p>Construct the training program contents based on a needs assessment of learners.</p> <p>Use cases closely related to clinical nursing in learning materials and assignments.</p> <p>Focus more on the practical research knowledge and skills often used by clinical nursing research.</p> <p>Use emergent teaching* in training program to meet learners' needs on training contents.</p>
Lack of systematicity	Construct and organize the training program contents systematically.
Lack of "hand-on" practical courses	<p>Include "hand-on" practice courses of commonly used nursing research software in the training program.</p> <p>Include practice assignments in the training program.</p>
Hard to understand	<p>Provide suitable media resources for better understanding.</p> <p>Use cases closely related to clinical nursing.</p> <p>Sequence training contents from easy to difficult.</p>
Lack of up-to-date contents	Develop learning materials based on not only textbooks, but also on the most recent academic literature.
Teacher-centered teaching method	<p>Construct the training program contents based on a needs assessment of learners.</p> <p>Use emergent teaching* in the training program to implement learner-centered learning.</p>
Lack of continuous supports	Provide continuous supports (e.g. access to learning materials and help from the trainers) after the training program.
Lack of system for feedback	Continuously collect feedback during the training process to improve the training program.
Time-limited	<p>Use blended learning**.</p> <p>Provide a longer time for the training program.</p>
Lack of theoretical foundation	Construct the training program based on a relevant theoretical foundation.