Propelling Educational Innovations to Publication in Five Steps

Clinician–educators often describe innovations as an entry point into educational scholarship dissemination. However, increased emphasis on outcomes and generalizability requires more rigorous descriptions of educational innovations grounded in a conceptual framework.

We propose a model that couples best practices for describing educational innovations with a curriculum development framework to guide authors in writing and publishing. This five-step approach bridges work focused more narrowly on the preparation to write educational innovations and more broadly on models to describe all health care innovations. Our active approach asks who, what, when, where, why, and how to stimulate critical thinking and guide the writing process.

Five steps to propel educational innovations to publication

Step 1: Preparation
Identify coauthors and mentors, create a timeline, and identify a venue for dissemination.

Step 2: Problem
Articulate the relevance of the problem and identify the stakeholders involved.

Step 3: Solution
Describe potential solutions, the relevant conceptual framework, and the rationale for the chosen solution.

Step 4: Implementation
Describe key resources, support, and administrative mechanisms used for implementation.

Step 5: Reflection
Assess outcomes, impact, generalizability, and feasibility of the innovation and identify next steps.

Critical questions to address each step

<table>
<thead>
<tr>
<th>Step 1: Preparation</th>
<th>Step 2: Problem</th>
<th>Step 3: Solution</th>
<th>Step 4: Implementation</th>
<th>Step 5: Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who</strong></td>
<td>Who is on our writing team?</td>
<td>Who is affected by the problem?</td>
<td>Who else is addressing the problem?</td>
<td>Who are the target learners?</td>
</tr>
<tr>
<td><strong>What</strong></td>
<td>What message are we planning to convey?</td>
<td>What is the problem?</td>
<td>What are we doing differently?</td>
<td>What are the resources/barriers?</td>
</tr>
<tr>
<td><strong>When</strong></td>
<td>When are we aiming to publish our innovation?</td>
<td>When is the problem relevant?</td>
<td>When are we testing our innovation?</td>
<td>When are we implementing our innovation?</td>
</tr>
<tr>
<td><strong>Where</strong></td>
<td>Where are we aiming to publish our innovation?</td>
<td>Where is the problem occurring?</td>
<td>Where in the educational continuum is our solution applicable?</td>
<td>Where are we conducting our innovation?</td>
</tr>
<tr>
<td><strong>Why</strong></td>
<td>Why is our solution innovative?</td>
<td>Why is the problem occurring?</td>
<td>Why is our solution optimal?</td>
<td>Why are we focusing on this population?</td>
</tr>
<tr>
<td><strong>How</strong></td>
<td>How are we dividing the writing workload?</td>
<td>How does the problem influence education and/or health care delivery?</td>
<td>How is our solution contextualized within a conceptual framework?</td>
<td>How are we implementing our innovation?</td>
</tr>
</tbody>
</table>

Acknowledgments: The authors would like to acknowledge Jocelyn H. Schiller, MD, Rebecca L. Tenney-Soeiro, MD, MEd, Amal M. Khidir, MBBS, and Chad J. Vercio, MD, who co-presented this approach at the 2018 Council on Medical Student Education in Pediatrics annual meeting. They would also like to thank Robert J. Gordon for his graphic design expertise.

References:

Author contact: Michael Ryan at michael.ryan1@vcuhealth.org; Twitter: @MichaelRyanMD