SOLVING A COMPLEX LEARNING AND TEACHING PROBLEM

A lesson is emerging: checklists seem able to defend anyone, even the experienced, against failure in many more tasks than we realized. They provide a kind of cognitive net. They catch mental flaws inherent in all of us – flaws of memory and attention and thoroughness. And because they do, they raise wide, unexpected possibilities.   **Atul Gawande**

STEP 1: MAKE EXPLICIT THE THEORY-FOR-IMPROVEMENT

1. Agree on a complex learning and teaching problem you want to solve. Check it's the real problem, not a symptom of a bigger problem. Write a concise problem statement.
2. Discuss the problem's causes. Why do I/we have this problem? Write them all down, don't preference or rule out any.
3. Discuss possible actions to address the problem. Write them all down, don't preference or rule out any.
4. Discuss the outcomes you want. Write them all down, giving priority to student outcomes.
5. Share your theory with relevant others and invite their critical feedback. If necessary, revise your theory so it's a shared and inclusive theory.

STEP 2: IDENTIFY ASSUMPTIONS AND SOLUTION REQUIREMENTS

6. Identify and write down the main assumptions (beliefs) that are explicit or implicit in the theory. For example, "If middle leaders were instructional leaders rather than managers student outcomes will improve"; "Differentiation if well documented will improve teaching practice and student learning."
7. To test the validity of each assumption, opposite each one write down what would need to be taken into account for a solution to work. You could have more than one response opposite each assumption. These are the implied solution requirements. For example, "Middle leaders will require a much better understanding of instructional leadership practices"; "High-impact differentiation practices will need to be identified prior to documenting what counts as differentiation."

STEP 3: DEVELOP AND DECIDE THE SOLUTION

8. For a solution to be effective it needs to include and respond to all of the implied solution requirements, which is why it's called an 'integrative solution'.
9. Discuss actions that could be responsive to each implied solution requirement. Write each action under one of three core leadership and teaching capabilities: instructional capability; organisational capability; evaluative capability. This helps to ensure the solution takes into account all three core capabilities.
10. Check and test that each proposed action has either demonstrated evidence or quality assured research, or both, to know that it is very likely to have high-impact on student outcomes. If it doesn't pass this test, don't include it.
11. Share the proposed 'integrative solution' with relevant others and invite their critical feedback. If necessary, revise the solution.

STEP 4: PLAN TO IMPLEMENT THE SOLUTION

12. Use a planning template for how and when the solution will be implemented. List the three core capabilities down the left-hand side of the page. Across the remainder of the page, list the following column headings: Improved Student Outcomes; Actions; Resources; Responsibility; Target Date.
13. Complete the implementation plan template, using information from the integrative solution (above) and other relevant information the solution requires, such as resources (time, people, money, materials).
14. Share the completed implementation plan with relevant others and invite their critical feedback. If necessary, revise the plan.
15. Each quarter check the progress of the plan with relevant others by: gathering evidence of success; identifying and responding to challenges; widely communicating progress and proposed responses to challenges; inviting critical feedback; reviewing and revising the implementation plan accordingly.

Acknowledgments:
Gawande, A. (2011). *The checklist manifesto: how to get things right.* London: Profile Books.
Robinson, V. (2011). *Student-centered leadership.* San Francisco: Jossey-Bass.
Timperley, H., & Parr, J. (2010). *Weaving evidence, inquiry and standards to build better schools.* Wellington: NZCER Press.