

# Design and Development Research Checklist

## Based on the Common Guidelines for Education Research and Development

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This checklist is a distillation of key points from the *Common Guidelines for Education Research and Development* regarding **Design and Development Research**. The *Guidelines*, developed by the Institute of Education Sciences at the U.S. Department of Education and the National Science Foundation, explains those agencies' shared expectations for education research and development. This checklist, created by EvaluATE, is intended to support use of the *Guidelines*, enabling users to quickly reference those that specifically relate to Foundational Research. As such, it provides an overview and orientation to the *Guidelines*. **It does not replace the Guidelines nor does it expand or elaborate on that report's content.** The checklist's content has been extracted (usually verbatim) from the full report. All checklist users are strongly encouraged to read the complete *Guidelines*, available from [http://bit.ly/nsf-ies\\_guide](http://bit.ly/nsf-ies_guide).

Checklists on the other five types of research outlined in the *Guidelines* are available from [www.evaluate.org/resources/cg\\_checklist/](http://www.evaluate.org/resources/cg_checklist/).

**TYPE 3: DESIGN AND DEVELOPMENT RESEARCH** to develop new or improved interventions or strategies to achieve well-specified learning goals or objectives, including making refinements on the basis of small-scale testing

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### **Justification**

#### ***Policy and/or Practical Significance***

- Specify the practical problem the intervention will address
- Justify the importance of the problem
- Describe how the intervention differs from existing practice
- Explain why the project has the potential to improve education outcomes or increase efficiencies in the education system or institutional setting

#### ***Theoretical and Empirical Basis***

- Describe the theoretical or empirical justification for the intervention
- If the theoretical basis rests on evidence related to individual components, explain how combining these components in a new intervention is expected to achieve intended outcomes*
- Provide well-explicated theory of action or logic model for the intervention, including key components and their relationships, both theoretical and operational

### **Evidence**

#### ***Project Outcomes***

- Fully developed version of the design-research, including all materials necessary for implementation
- Well-specified theory of action, including evidence supporting or refuting key assumptions of the intervention's original theoretical basis
- Description of the major design iterations and resulting evidence to support key assumptions about the theory of action
- Description and empirical evidence of the adjustments to the theory of action and intervention design that resulted from design testing
- Measures with evidence of technical quality for assessing the implementation of the intervention under typical conditions
- Pilot data on the intervention's promise for generating intended education outcomes

#### ***Research Plan***

- Describe method for developing the intervention to the point where it can be used by the intended end users
- Describe methods for collecting evidence on the feasibility of implementation by end users under typical conditions
- Describe method for obtaining pilot data on the intervention's promise for achieving intended outcomes

### **External Feedback**

- Subject the project's design and activities to a series of external, critical reviews via one or more of the following strategies:
  - Peer review of the proposed project
  - Ongoing monitoring and review by the grant making agency's personnel
  - External review panels or advisory boards proposed by the project and/or the agency
  - Third-party evaluator
  - Peer review of publications and conference presentations resulting from the project