



An Integrated R&D and Evaluation Approach for Grant-Funded Education Projects
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RESOURCES

Common Guidelines for Education Research and Development

<http://ies.ed.gov/pdf/CommonGuidelines.pdf>

What Works Clearinghouse Procedures and Standards Manual v.3.0

<http://ies.ed.gov/ncee/wwc/documentsum.aspx?sid=19>

Evaluation of NSF ATE Program Research & Development

<http://www.eval-ate.org/wp-content/uploads/formidable/EvaluatingATEResearch2014.pdf>

PRESENTATION REFERENCES

Institute of Education Sciences, U.S. Department of Education and the National Science Foundation. (2013).

Common Guidelines for Education Research and Development. Retrieved from

<http://www.nsf.gov/pubs/2013/nsf13126/nsf13126.pdf>.

Ritchie, L. A. (2008). *Facilitating an understanding of Advanced Technological Education targeted research needs*.

Retrieved from <http://www.colorado.edu/ibs/decaproject/pubs/FINALATETargetedResearchWhitePaper.pdf>.

INTEGRATED R&D AND EVALUATION APPROACH

- Define the innovation of interest (program, resource, materials, technology, or combination thereof), in terms of...
 - Crucial components of the model; non-negotiables and optional elements, if any
 - Outcomes anticipated from the model; persistent changes for individuals or groups of people
- Clarify the theoretical basis of the innovation; the conceptual linkages among model components and outcomes that describe “how the innovation works;” typically with a logic model
- Determine the innovation’s current “maturity level;” the state of evidence supporting the theory (or theories) behind its effectiveness or promise of effectiveness in terms of achieving targeted outcomes
- Choose the Common Guidelines level of research appropriate to next steps in advancing innovation development
- Clarify the purpose(s) to which research findings will be applied, and the appropriate audience(s) for those findings (e.g., internal for improvement purposes vs. external for dissemination/scale-up purposes), considering both internal and “contribution to broader understandings” uses of findings
- Define roles for R&D project partners in terms of (a) development responsibilities and (b) research responsibilities
- Define specific research questions to be answered to support the development purpose and next steps
- Design data collection and analysis methods appropriate to answering the questions, attending to expectations of rigor consistent with defined purpose(s)
- Elaborate a work plan integrating research and development functions consistent with all of the above
- Determine timelines and standards of quality for (a) the processes to be applied, and (b) the products expected from the R&D effort
- Clarify the purpose(s) to which findings from evaluation of the R&D effort will be applied, the audiences for those findings, and the form of communication deliverables appropriate to all purposes and audiences
- Define specific R&D program evaluation questions to be answered; consider pertinent conceptual models
- Engage an evaluator (typically external) to determine data collection and analysis methods to answer the evaluation questions, and products required to support communication needs
- Implement the R&D study and external evaluation