

## Design Science Research Guideline Lookup Table

Guideline	Description
<b>1. IT Artifact</b>	Design a purposeful IT artifact having an outcome in the form of a construct, a model, a method, or an instantiation. Design research assumes some knowledge of the mechanism surrounding a phenomenon in question and expects a clearly stated outcome. Stating a proposed research outcome before data collection, falls in the purview of the fixed research design strategy.
<b>2. Problem Relevance</b>	Seek and express the relevance of the problem domain in transforming the phenomenon. Apart from the researcher, the discipline's social group or other concerned entities must also care about the problem in question.
<b>3. Design Evaluation</b>	Appraise rigorously the efficacy, utility, and quality of the design artifact using well-executed evaluation methods. Design evaluation methods include appraising the efficacy, efficiency, or effectiveness of the artifact, or testing the design hypothesis. Marginal, comparative, or cost effectiveness appraisal can be performed using fixed or flexible design strategy. For example, a flexible design using interview or focus group in a case study instrumentation might be employed to perform an evaluation. While a fixed design testing design hypothesis using a sample or simulation also provide a rigorous means of evaluating the outcome of the artifact.
<b>4. Research Contributions</b>	Seek contributions to knowledge in the area of design artifact, design foundations, design methodologies, or all.
<b>5. Research Rigor</b>	Design and build the artifact. Justify claims by logical explanation through evidence and warrants. Evaluate research outcome using fixed or flexible design strategy.
<b>6. Design as a Search</b>	Seek accommodation or fit of the artifact in a real world problem domain within the constraints of the problem
<b>7. Communication of Research</b>	Communicate both the technological and managerial problem-solution views of the artifact for the benefit of technology-oriented and management-oriented audiences.

*Adapted by Olusola Samuel-Ojo from Hevner et al. (2004); Olfman (2008); and Robson (2002)*

Hevner, A. R., March, S. T., & Park, J. (2004). Design science in information systems research. *MIS Quarterly*, 28(1).

Olfman, L. (2008). Meeting conversation on research proposal. In O. Samuel-Ojo (Ed.). Claremont, CA: CGU.

Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers*: Blackwell Publishing.