

HOW TO APPLY THE MULTIPHASE OPTIMIZATION STRATEGY (MOST) IN YOUR INTERVENTION DEVELOPMENT RESEARCH

Module 1

MOST is a different way of thinking

Lesson 6: The three phases of MOST



NYU

**SCHOOL OF GLOBAL
PUBLIC HEALTH**

Intervention Optimization Initiative

This course was developed by

Linda M. Collins

School of Global Public
Health

New York University
(narrator)

Kate Guastaferro

College of Health and
Human Development

The Pennsylvania State
University



NYU

SCHOOL OF GLOBAL
PUBLIC HEALTH

Intervention Optimization Initiative

In the previous lesson you learned how to:

- Further clarify the concept of optimization
- Define intervention ***EASE*** and relate it to optimization

In this lesson you will learn how to

- Define the three phases of MOST: preparation, optimization, evaluation
- Apply the two fundamental principles of MOST
 - Resource management
 - Continual optimization

The purpose of the multiphase optimization strategy (MOST)

- MOST is a comprehensive strategy for intervention optimization and evaluation

MOST: A comprehensive strategy for optimization and evaluation

- Engineering-inspired framework
 - Estimate individual/combined contributions of intervention components
 - Decide which to retain, at what levels/settings, to achieve **EASE**
 - THEN optimized intervention may be evaluated in an RCT

MOST: A comprehensive strategy for optimization and evaluation

- MOST is
 - A framework for thinking through how to optimize a behavioral intervention and achieve **EASE**
 - A practical way of approaching the engineering of a behavioral intervention so that it meets a specific optimization objective

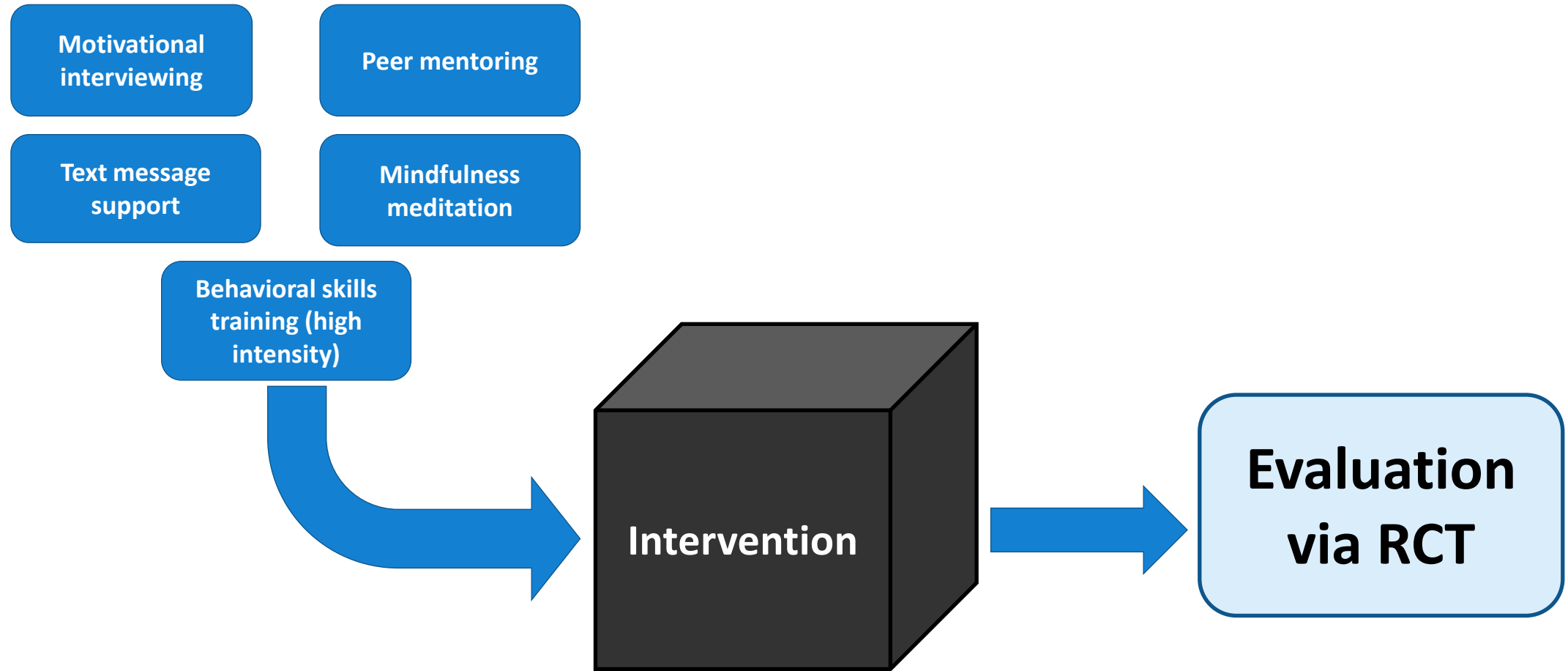
MOST: A comprehensive strategy for optimization and evaluation

- MOST is
 - Designed to make the best use of available resources
 - Very new, and still an open area! Not everything is figured out

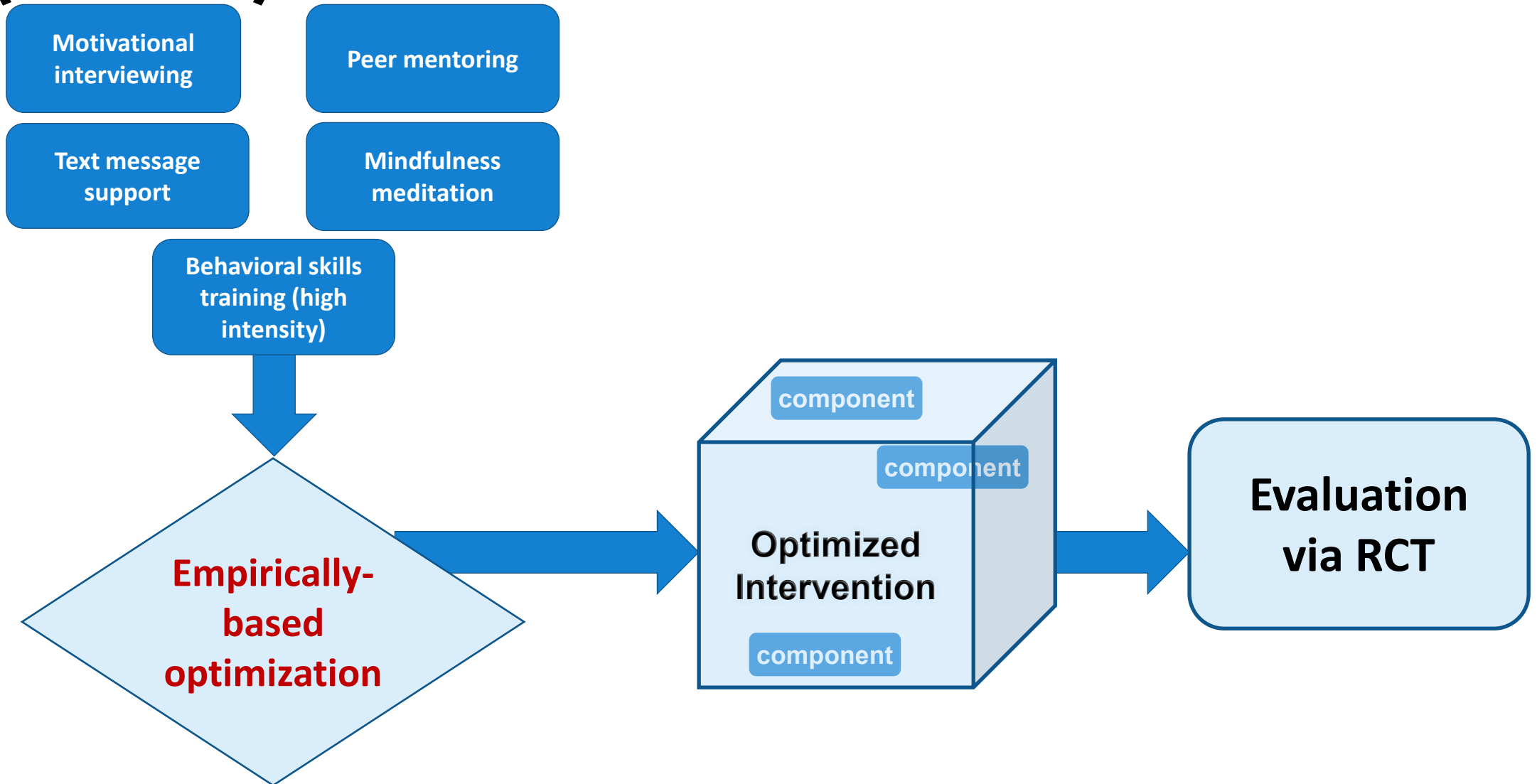
MOST: A comprehensive strategy for optimization and evaluation

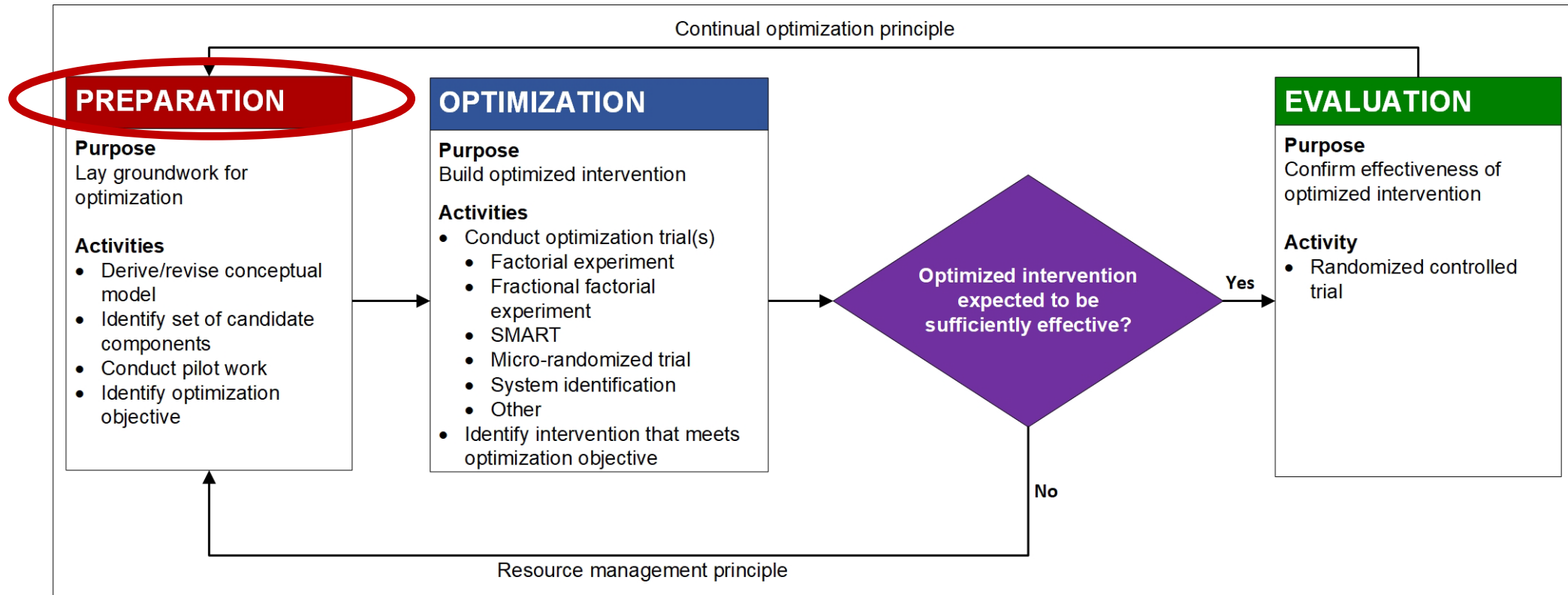
- MOST is not
 - An off-the-shelf procedure that is identical for every application
 - A particular experimental design

Classical treatment package approach



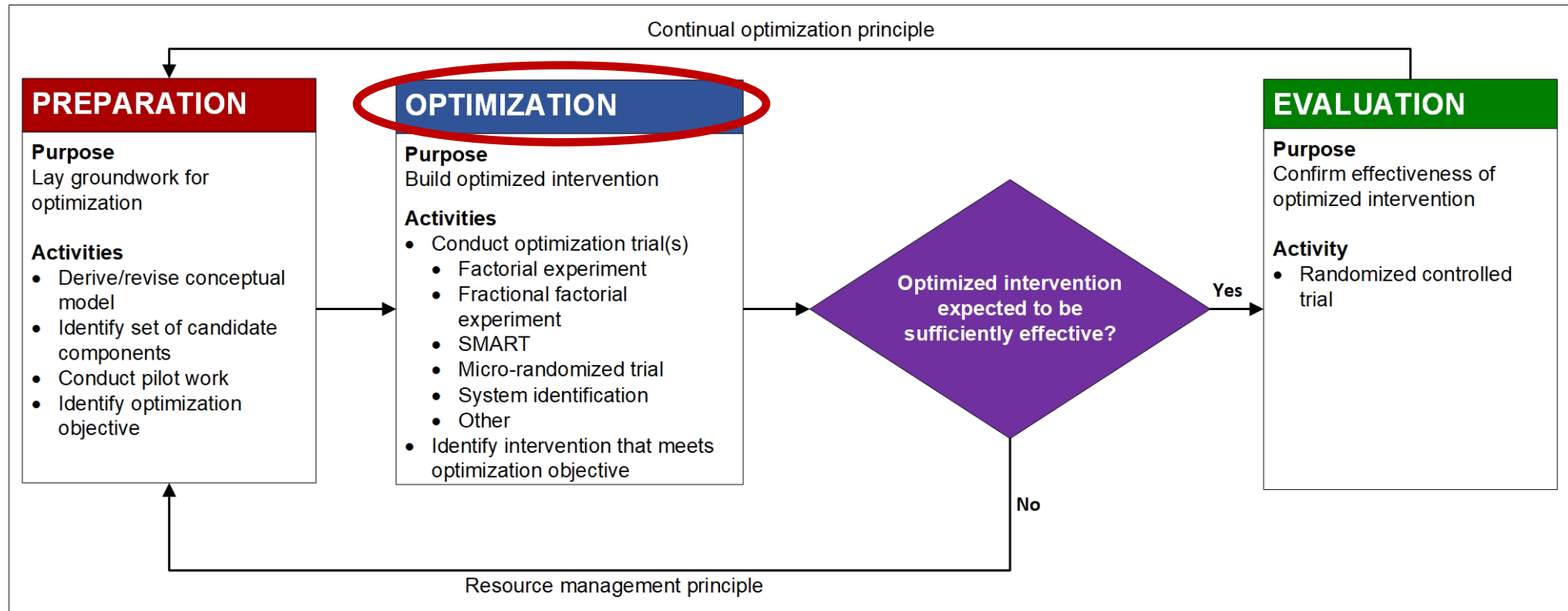
Multiphase optimization strategy (MOST)





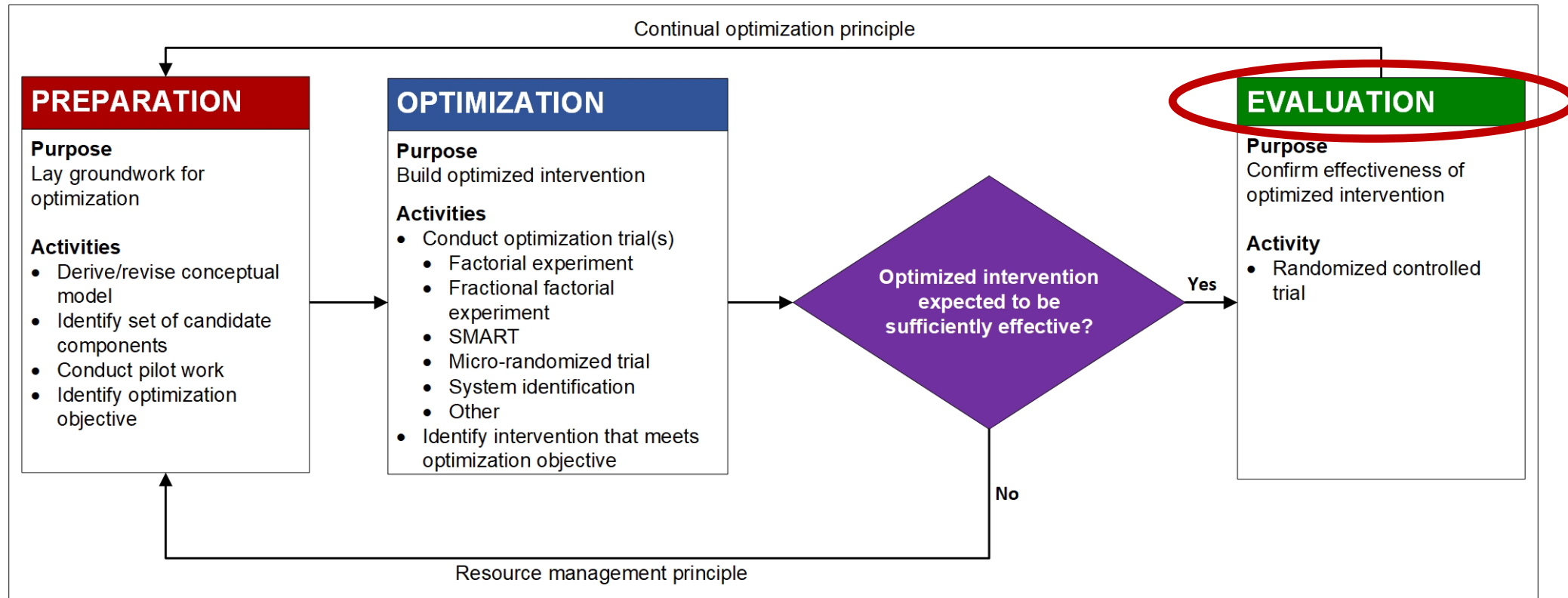
Flow chart of the three phases of the multiphase optimization strategy (MOST). Rectangle = action. Diamond = decision.

Figure adapted with permission from Collins (2018).



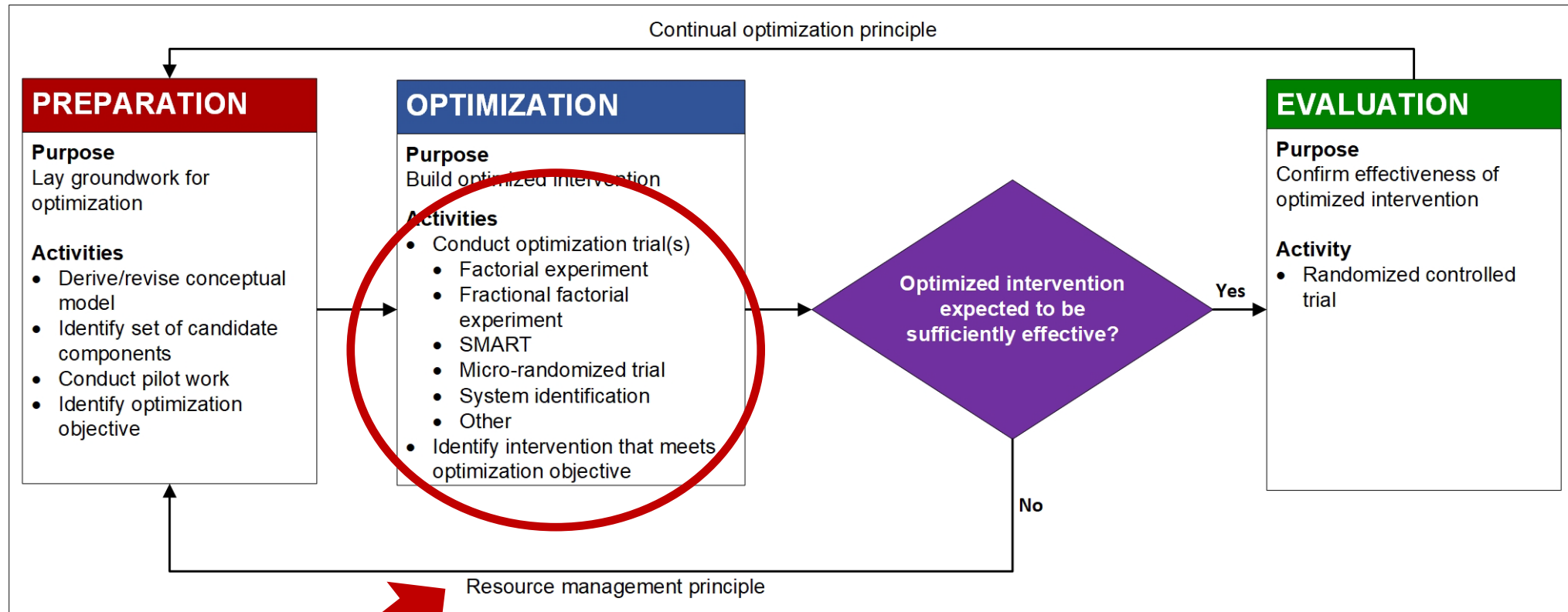
Flow chart of the three phases of the multiphase optimization strategy (MOST). Rectangle = action. Diamond = decision.

Figure adapted with permission from Collins (2018).



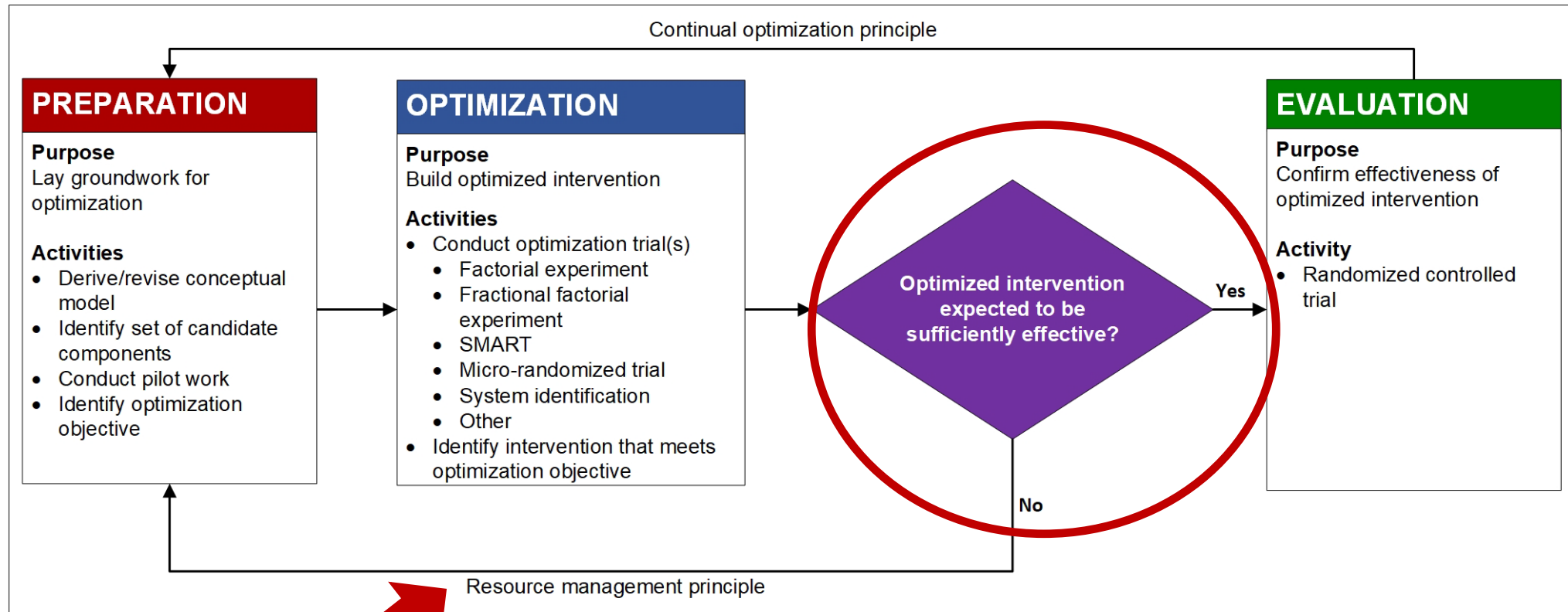
Flow chart of the three phases of the multiphase optimization strategy (MOST). Rectangle = action. Diamond = decision.

Figure adapted with permission from Collins (2018).



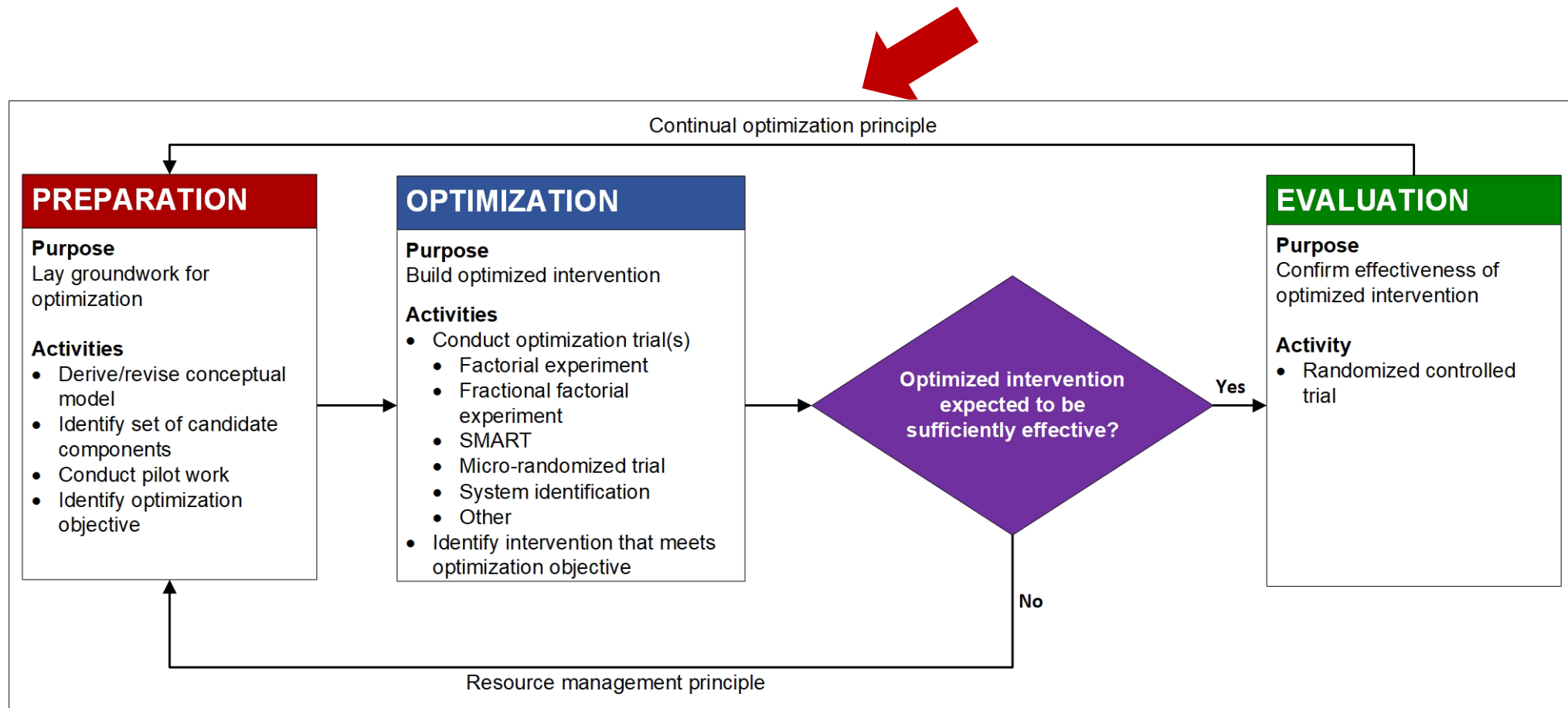
Flow chart of the three phases of the multiphase optimization strategy (MOST). Rectangle = action. Diamond = decision.

Figure adapted with permission from Collins (2018).



Flow chart of the three phases of the multiphase optimization strategy (MOST). Rectangle = action. Diamond = decision.

Figure adapted with permission from Collins (2018).



Flow chart of the three phases of the multiphase optimization strategy (MOST). Rectangle = action. Diamond = decision.

Figure adapted with permission from Collins (2018).

In this lesson you learned how to

- Define the three phases of MOST: preparation, optimization, evaluation
- Apply the two fundamental principles of MOST
 - Resource management
 - Continual optimization

In the next lesson you will learn how to:

- Contrast the MOST perspective to that of the classical treatment package approach
- Articulate why MOST is a different way of thinking



NYU

SCHOOL OF GLOBAL
PUBLIC HEALTH

Intervention Optimization Initiative

References Cited

- Collins, L. M. (2018). *Optimization of behavioral, biobehavioral, and biomedical interventions: The multiphase optimization strategy (MOST)*. New York: Springer.

