Research Methods and Strategies

Evaluating the Impact of Educational Programs

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What is Evaluation?

- The word *value* is in the word as it is the process of assessing value or worth of an educational endeavor.
- Did the program achieve the stated objectives?
- Did it serve some larger specified goals?
- Was it worth the cost?
- Did it influence the knowledge, attitude and behavior of target audience?
- What was the value to participants?

Why Evaluate?

- Evaluations can serve research purposes, program evaluation purposes or both.
- In research we investigate whether and how interventions work or not work.
- In practice settings it helps a person be accountable for programs they conduct.
- It may also be used to allocate resources.
- It may provide support to the program and/or gain visibility to a program. This could include policy efforts.
- And it can serve psychological purposes as it can be motivating to learn what has been effective.

Comparison of Evaluation Terms

Planning → Start of implementation → End of implementation

Formative	Summative

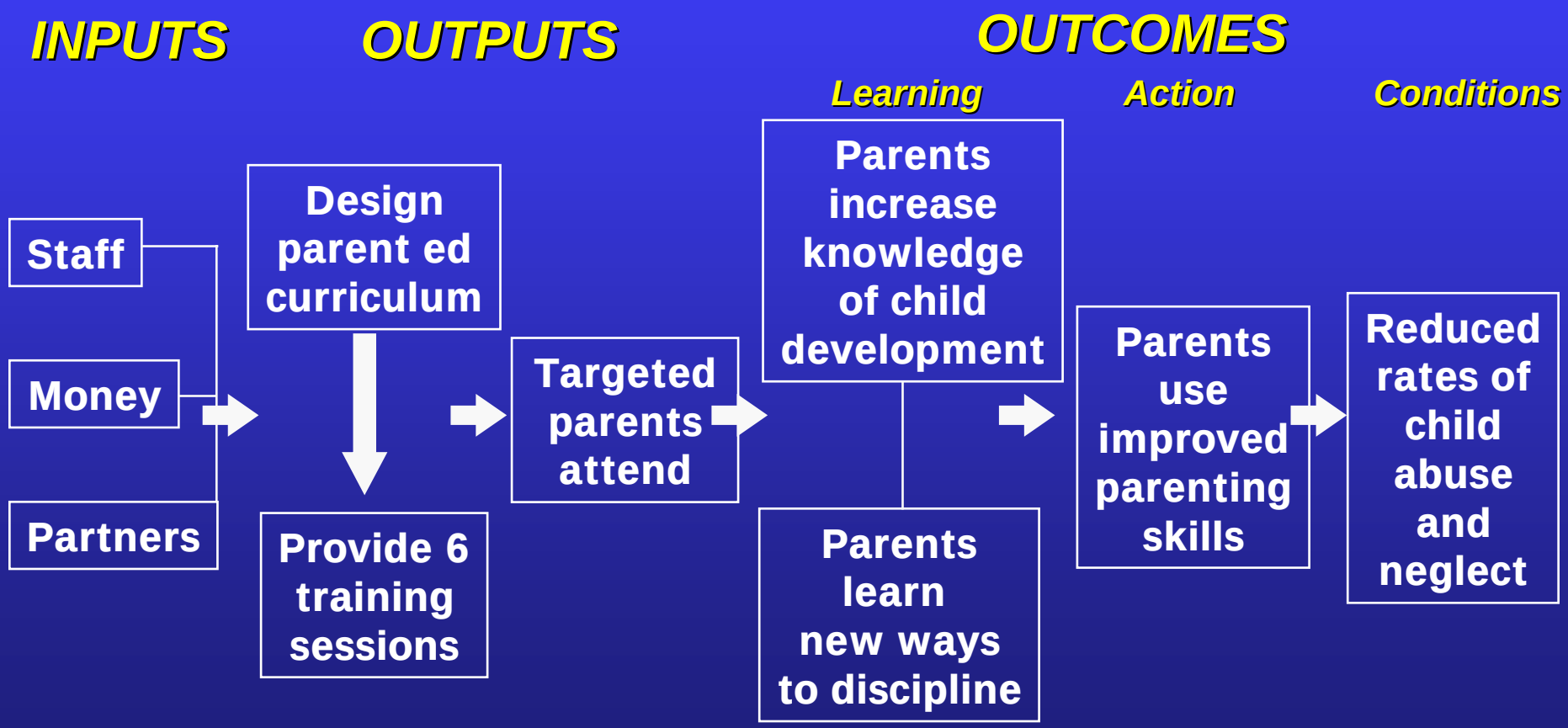
Process	Impact	Outcome

Outcome Evaluation

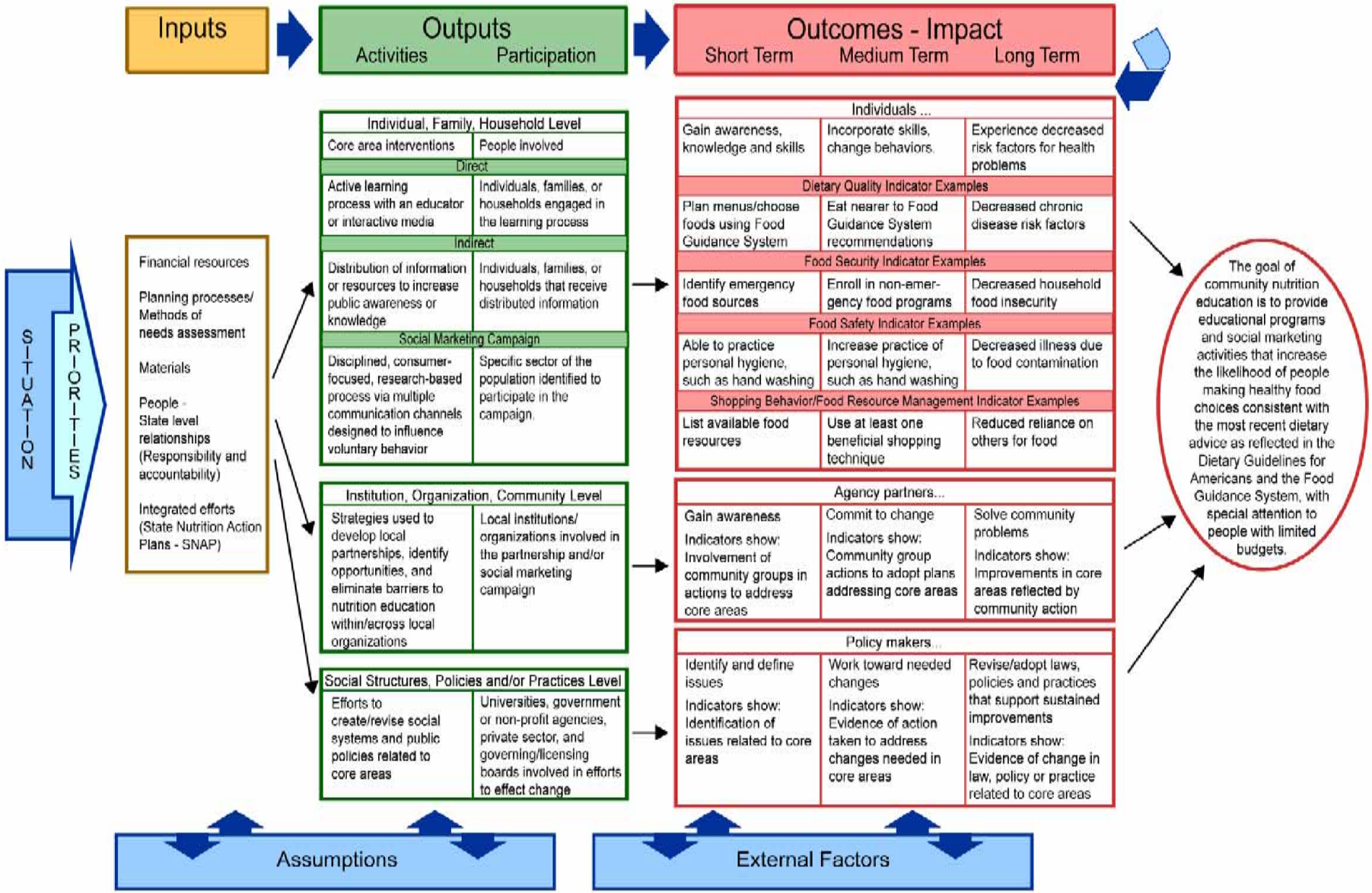
- Focuses on an ultimate goal or product of a program
- Generally measured by symptoms, signs, or physiological indicators on individuals
- Long-term in nature and takes more time and resources to conduct than impact evaluation.
- The *logic model* is an example and used to see if the evidence is a result of intervention. To conclude that outcomes are a result of an intervention an Impact evaluation must be done

Green & Lewis, 1986, p. 366

Logic Model Example



The Community Nutrition Education (CNE) Logic Model – Overview



Impact Evaluation

- Systematic design or plan used to eliminate alternative explanations for observed differences
- Focuses on “immediate observable effects of a program, leading to the intended outcomes of a program”
- Measures of awareness, knowledge, attitudes, skills, and behaviors yield impact evaluation data

Green & Lewis, 1986, p. 363

Formative Evaluation

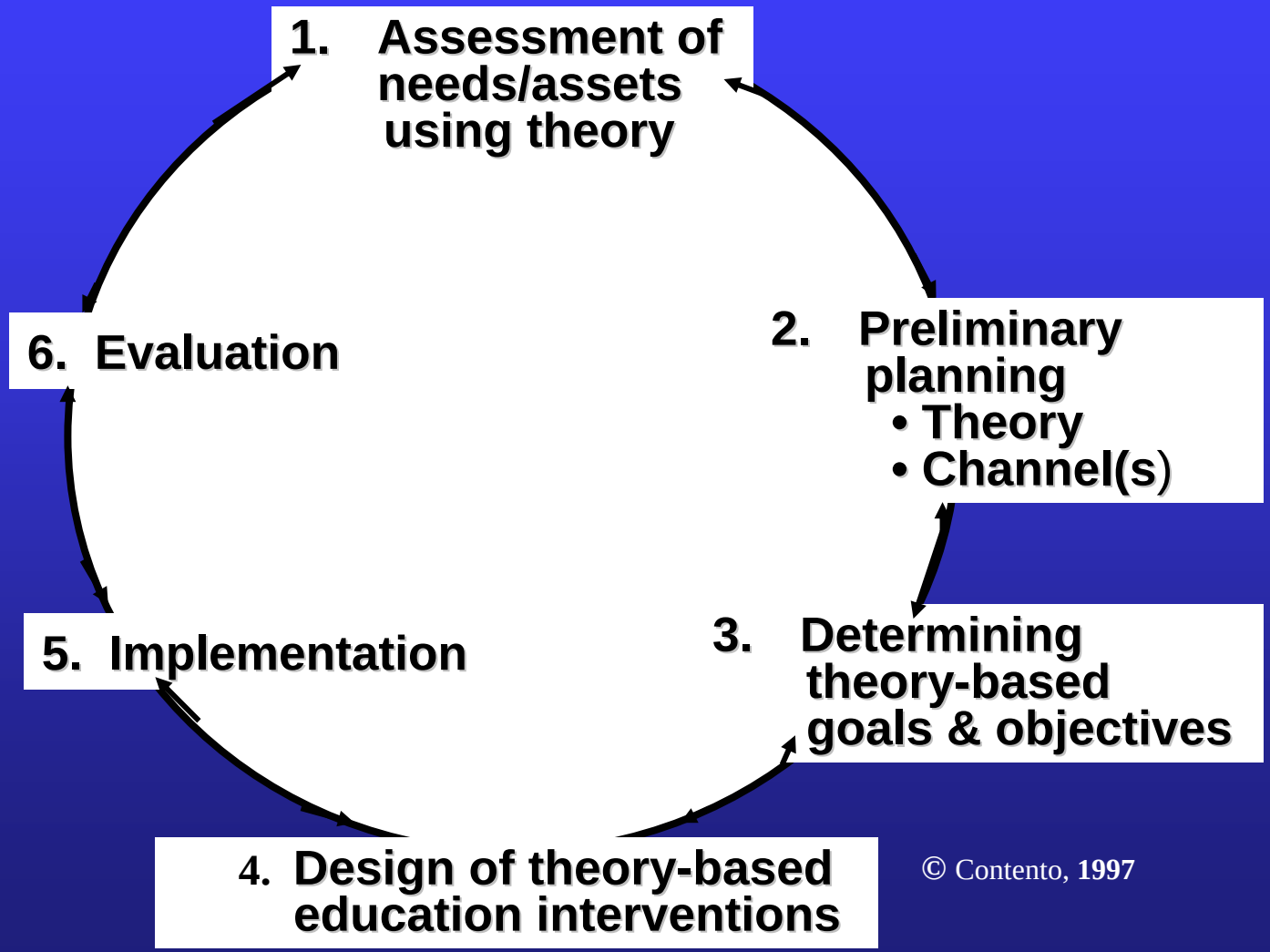
- Any combination of measurements obtained and judgments made before or during the implementation of materials, methods, activities or programs
- Used to control, assure or improve the quality of performance or delivery
- Includes, but not limited to, a needs assessment or pilot testing a program

Green & Lewis, 1986, p. 362

Summative Evaluation

- Summative evaluations provide overall effects and program accountability
- They include any combination of measurements and judgments
- Allow conclusions to be drawn about impact, outcome, or benefits of a program or method
- A good summative evaluation should report why or why not was the education effective…thus even summative evaluation may have formative implications

Framework for Designing Theory-based Interventions



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Designing the Evaluation

- Process evaluation occurs during program and is a form of formative evaluation.
- Impact and outcome evaluation occur at the completion of the program and are considered forms of summative evaluation.
- Both sets of evaluation (process, impact, and outcome; formative and summative) take into account the need to conduct evaluation before and/or during the program and at the end of the program.
- Plans for all types of evaluation should be in place before and planned at the same time as program implementation.

Indicators and Measures

- Indicators need to be appropriate for your program
- Indicators could include
  - Increased knowledge about food safety
  - Changes in attitudes regarding food safety
  - Improved food safety practices
- Indicators need to be measurable

Factors to Consider When Choosing a Data Collection Method

- Exact indicators or measures of effectiveness
- Size of target audience
- Level of accuracy desired
- Purpose of evaluation
- How will the findings be used
- Resources available
- Qualitative vs. quantitative or both?

Types of Data Collection Methods

- Formative evaluation
  - In-depth interviews
  - Focus groups
  - Surveys (mail, telephone, Internet/web)
- Summative evaluation
  - Surveys (mail, telephone, Internet/web)
  - Observation
  - Diaries

Other Considerations

- Type of experimental design
- Use of Control Groups
- Determine adequate numbers to study
- Representative sample

Lessons Learned

- Lesson 1 - Plan carefully
- Lesson 2 - Budget carefully for time and resources
- Lesson 3 - Evaluation is not easy but necessary!
- Lesson 4 - Evaluation is a learning experience

Suggested Resources

1. Windsor R, Clark N, Boyd NR, Goodman RM. *Evaluation of Health Promotion, Health Education, and Disease Prevention Programs, 3rd ed.* McGraw Hill, 2003.
2. Green LW, Lewis FM. *Measurement and Evaluation in Health Education and Health Promotion.* Mayfield Public, Palo Alto, 1986.
3. *Supplement Issue: Evaluation of Nutrition Education with Low-Income Families.* J Nutrition Education, 33 (S1), 2001.
4. Contento, I. *Nutrition Education: Linking Research, Theory, and Practice*. (It will be available Spring 2007) Jones and Bartlett, 2007.

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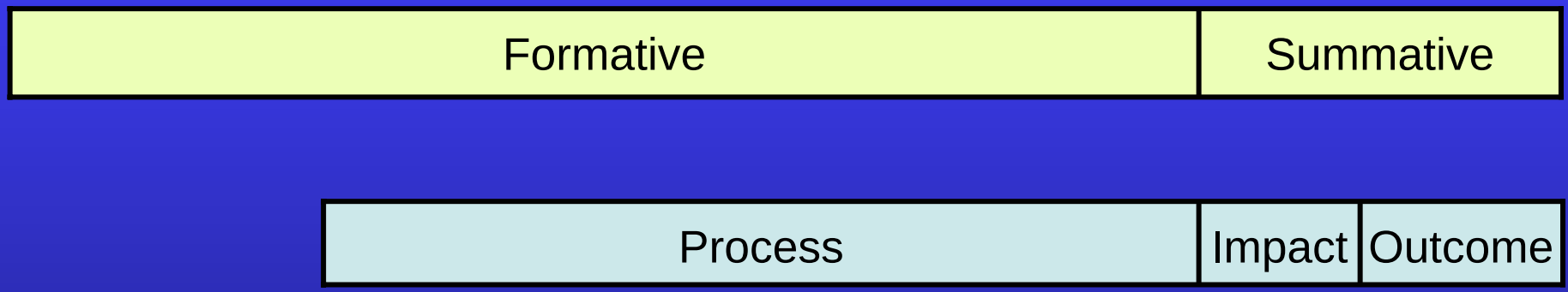
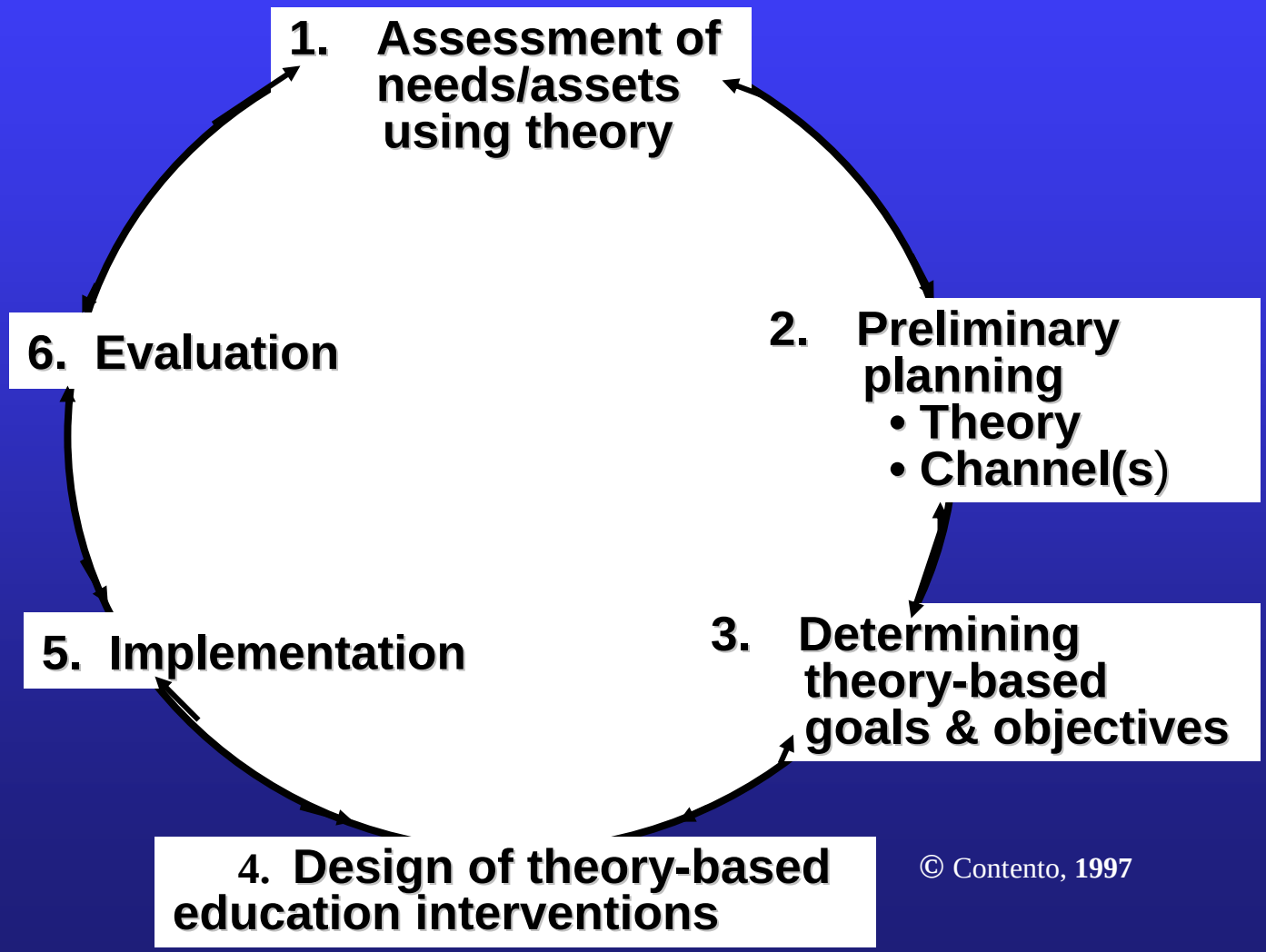


Framework for Designing Theory-based Food Safety Education Interventions



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