

# Planned Behavior Change: An Overview of the Diffusion of Innovations<sup>1</sup>

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According to renowned change theorist Everett Rogers, “Since its inception, the main purpose of the Cooperative Extension Service has been to change human behavior by teaching people how to apply the results of scientific research.” Today, Cooperative Extension still works to provide solutions for people’s lives. The ability to facilitate behavior change in clientele is paramount to the success of Cooperative Extension. Clements stated: “Legislators agree that impact means behavior change.” This publication is designed to provide an overview of how the principles of diffusion can be applied to facilitate planned behavior change in Extension clientele.

## Background

The idea of diffusion was first broadly introduced to the Extension profession in 1963 by Everett Rogers. Rogers wrote a two-part series appearing in the inaugural and second issues of the *Journal of Cooperative Extension* (now known as the *Journal of Extension*) detailing the appropriateness of the diffusion theory for Extension professionals and providing an overview of the relevant literature. In Part I, Rogers stated: “All Extension workers are change agents—professional persons who attempt to influence adoption decisions in a direction they feel is desirable.” He identified four areas of diffusion as significant to Extension:

1. The adoption process
2. The rate of adoption of innovations

## 3. Adopter categories

## 4. Opinion leadership

An overview of each area has been provided in the following subsections.

## The Adoption Process

Rogers’ theory states innovations diffuse through a social system over time:

- An innovation is “an idea, practice, or object that is perceived as new by an individual or other unit of adoption.”
- Diffusion is defined as “the process in which an innovation is communicated through certain channels over time among the members of a social system.”

The rate of diffusion for an innovation is related to how potential adopters perceive the innovation, with the characteristics of the innovation itself coupled with certain factors affecting potential adopters together playing key roles in informing perceptions. Adopters move through five different stages as they determine if they want to adopt an innovation:

1. Knowledge
2. Persuasion

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3. Decision
4. Implementation
5. Confirmation

Li proposed, and Harder and Lindner confirmed, a sixth stage (no knowledge) to include individuals who have not yet heard of an innovation.

## The Rate of Adoption of Innovations

There are five characteristics that influence how rapidly an innovation is diffused into a social system: relative advantage, compatibility, complexity, observability, and trialability. Relative advantage and compatibility are considered to have the most influence on the rate of adoption. Innovations diffuse most rapidly when they are perceived by individuals to have low complexity, with high relative advantage, compatibility, observability, and trialability. Certain factors, often called barriers, can negatively affect how individuals perceive the characteristics of an innovation and the speed with which it is diffused.

## Adopter Categories

Individuals can be sorted into five categories based upon how quickly they adopt an innovation:

1. Innovator
2. Early adopter
3. Early majority
4. Late majority
5. Laggard

Innovators are the first individuals to move through the stages of the innovation-decision process, followed by early adopters, early majority, late majority, and finally the laggards. The categorization of an individual as a specific type of adopter is influenced by the speed with which the individual moves through the innovation-decision process.

## Opinion Leadership

According to Rogers, opinion leaders “are those from whom others seek advice and information.” They have the power to influence the people who follow them. For example, this may be the most socially connected farmer or the 4-H volunteer whose opinion is well respected by other volunteers. Support from these types of individuals is

critical for promoting change. Innovations are more likely to gain popularity within a social system when opinion leaders are supportive; conversely, opinion leaders can hinder the diffusion of innovations they perceive negatively.

## Relationship to Program Development & Evaluation

The Logic Model is the standard model for program development for UF/IFAS Extension. As demonstrated in Figure 1, the Logic Model begins with conducting a situational analysis and needs assessment. Similarly, the diffusion process begins after an innovation has been developed to solve a recognized need. It is most appropriate to begin considering factors affecting the diffusion of an innovation after the needs assessment phase of program development. Doing so will ensure an innovation is not promoted for the sake of innovation itself, but because it provides a solution to an identified need.

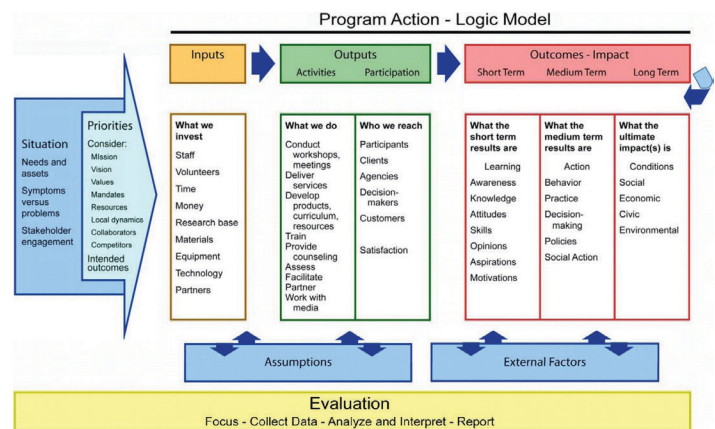


Figure 1. The Logic Model.

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Careful planning is a precursor to behavior change. According to Boone, Safrit, and Jones, “...planning is critical to [the] effective functioning of the adult education organization.” Program planners may find it most useful to consider diffusion factors during the input and output stages of the Logic Model. Inputs include volunteers, time, technology, and partners. Outputs are the activities that will be conducted and the participation of the target audience. Extension agents will be able to speed up the rate of an innovation’s adoption through the consideration of diffusion factors while planning inputs and outputs.

## Summary

It is possible to enhance our opportunities for success in Extension by focusing on the factors related to diffusion. Studying the characteristics of an innovation may help us determine what to highlight in our marketing, such

as when an innovation is less expensive, increases profit, or is compatible with community values. Recognition of adoption as a multi-step process yields educational strategies that are better tailored to meet clientele needs. Similarly, knowledge of the adopter categories and opinion leadership concepts can help us to map our audiences more accurately and guides us in choosing the communication channels most appropriate for each category. By applying the principles of diffusion to program development, Cooperative Extension can increase its effectiveness as a change organization.

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## Additional Footnotes

Rogers, 1963a, p. 16

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Clements, 1999, ¶2

Rogers, 1963a

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