Delivery Systems- Is the "Lates" Technology the Greatest?

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Abstract
High-tech delivery systems, such as distance-based learning and on-line resources, are increasingly popular among Extension organizations, but are they preferable to traditional delivery systems? In the study reported here, the author surveyed Extension agents (with agriculture and natural resources responsibilities) and natural resources professionals in state agencies to determine which delivery systems were most preferred for wildlife management information. Regardless of the respondent group, printed fact sheets and bulletins were among the most preferred sources of information for wildlife-related topics. These findings illustrate the importance of including traditional printed delivery systems into our high-tech programs.

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Introduction

Choice of a delivery system is among the most important decisions made by Extension professionals, and it can have serious consequences for program effectiveness. Over the past few decades, advances in communications technology have changed how agents and specialists deliver programs. For example, the speed and efficiency of information transfer has generally increased, whereas face-to-face teaching and personal contact have decreased (Simeral, 2001).

Recently, high-tech approaches, such as distance-based learning and on-line resources, have proliferated, allowing Extension organizations to reach larger and wider audiences. But are these new approaches preferable to traditional delivery systems? Many homes are without a computer. For those that have one, old computers may constrain a user's ability to access information over the Internet and to download large files. In addition, high-tech approaches may intimidate certain groups of clientele (e.g., older clientele).

The key to successful delivery is to know your audience. In the study reported here, I surveyed Extension agents (agriculture and natural resources) and natural resources professionals in state agencies to determine which delivery systems were most preferred for receiving wildlife management information.

Methods

I developed a mail survey that listed various delivery methods for wildlife management information. Respondents were asked to rank (A) how *they* would like to receive information on wildlife-related topics and (B) how *their clientele* would like to receive information on wildlife-related topics.

The following delivery methods were listed:

- Printed fact sheet,
- Printed bulletin or manual,
- On-line information (e.g., *Ohioline*),
- Conference, workshop, or short course,
- Seminar, and

- Video.

Additional information sources for clientele-only were newsletters and news releases. A rank of 1 indicated that the method was the most preferred source of information.

In October 2000, surveys were mailed to 100 county Extension agents and district specialists dealing with agriculture and natural resources in all of Ohio's 88 counties and to 59 personnel at the Ohio Department of Natural Resources (Divisions of Forestry and Wildlife). I targeted state agency personnel who interacted directly or indirectly with private citizens concerned with wildlife management issues (e.g., service foresters, private lands biologists, wildlife specialists).

Ninety-six surveys were returned, and return rates were similar for both groups (60% for Extension and 61% for state agencies).

Results

Regardless of the respondent group, printed fact sheets and bulletins were among the most preferred sources of information for wildlife-related topics for agents, natural resource professionals (Table 1) as well as their clientele (Table 2). Respondents perceived themselves to be more willing to use on-line resources than their clientele. Overall, face-to-face teaching and videos were less preferred than other information sources for all user groups.

Table 1
How Respondents Would Like to Receive Information on Wildlife-Related Topics
(1 = most preferred source of information)

Delivery Method	Mean	Standard Error
Printed fact sheet	1.95	0.13
On-line information	2.42	0.15
Printed bulletin or manual	2.81	0.14
Conference, workshop, or short course	3.25	0.19
Seminar presentation	4.23	0.18
Video	4.78	0.18

Table 2
How Their Clientele Would Like to Receive Information on Wildlife-Related Topics
(1 = most preferred source of information)

Delivery Method	Mean	Standard Error
Printed fact sheet	1.68	0.14
Printed bulletin or manual	2.90	0.18
Newsletter	3.61	0.21
On-line information	3.61	0.25
News release	3.68	0.26
Conference, workshop, or short course	5.25	0.28
Seminar presentation	5.53	0.28
Video	5.98	0.27

Discussion

Despite the advances in communications technology over the past several decades, printed information sources remain the most preferred delivery systems for Extension and state agency natural resource professionals in Ohio. At first glance, this may strike some Extension educators as surprising because of the high demand for presentations and workshops. This finding also seems to contradict evidence that experiential (hands-on) opportunities are the best approaches to learning (Richardson, 1994).

Why would agents and natural resource professionals prefer delivery systems that are not ideal for learning, and why would they frequently request methods that they do not prefer? Although additional examination is needed to understand this apparent paradox, I suggest two possible explanations.

1. Because the speed of information exchange and transfer has increased dramatically within the past several decades, clientele generally demand that their concerns be addressed more quickly than agents or specialists can respond with comprehensive programs, such as

workshops and conferences, that take months to develop. A fact sheet allows an agent to immediately provide credible, easily digested information to the clientele.

2. The breadth of topics that are part of Extension organizations (e.g., from food safety to agricultural methods to wildlife management to financial planning) make it difficult for Extension professionals to attain the level of expertise necessary to successfully accommodate every request for information or assistance. Fact sheets and bulletins help agents respond to a wider range of topics than if they had to personally research each request. Simply put, printed resources make the demanding jobs of agents more manageable, and they quickly satisfy most clientele.

Of particular concern is that we overestimate the receptivity of clientele to self-teaching from fact sheets and bulletins. Most agents and professionals are "self-taught" in at least some areas and, thus, may favor printed media. However, many traditional clientele groups may still learn best from an instructor. For example, "old-fashioned" workshops were valuable and effective delivery methods for woodland management programs (Decker, Lassoie, Goff, & Parrish, 1988), and these types of programs are popular in many states.

Certainly, Extension organizations should not limit the diversity of delivery systems that they use to increase program effectiveness. In fact, professionals must embrace new approaches and technology, and use them to enhance program delivery and versatility.

Multiple delivery systems are necessary to reach broad groups of clientele and to successfully teach particular topics. Rather than limit ourselves, we need to ensure that we include traditional delivery systems into our new high-tech programs.

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