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## Extension Clientele Preferences: Accessing Research-Based Information Online

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## Extension Clientele Preferences: Accessing Research-Based Information Online

### Abstract

Research has indicated there are a number of benefits to Extension educators in delivering educational program and content through distance technology methods. However, Extension educators are commonly apprehensive about this transition due to assumptions made about their clientele, because little research has been conducted to examine clients' preference for engaging in Extension educational programs. The research reported in this article examined clientele's preferences in how they access Extension research-based information, particularly when compared to traditional methods of delivering educational programs. The reported results support the movement of using distance technology methods to disseminate educational programs based on client's preferences.

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### Introduction

The Cooperative Extension System provides informal educational programs to citizens across the nation by linking individuals to research-based information provided by land-grant universities. Traditionally, many of these educational programs have been hands-on workshops, demonstrations, and field days. In light of decreased funding, Extension educators are often seeking ways to serve clientele with limited financial resources. Using technology to create, deliver, and disseminate educational programs and content, such as Web-based multimedia presentations and electronic newsletters, is a solution to decrease travel costs while creating replicable education programs.

Research has been conducted to examine Extension educators' readiness to use technology to deliver educational programs as well as the perceived benefits to Extension educators. A study within the Texas Cooperative Extension program examined the benefits related to delivering Extension education programs online. According to the study, "Respondents identified savings in travel time and travel expense, reaching new audiences and opportunities for multiple delivery systems as a major advantage of distance education" (Dromgoole & Boleman, 2006, p. 1). Although these advantages were identified, respondents expressed that distance education, due to lack of interaction with learners, may lead to less effective learning (Dromgoole & Boleman, 2006).

The Florida Cooperative Extension Service developed an online training to provide continued education for pesticide applicators. Fishel and Ferrell (2010) examined the effectiveness of online training and found standardization of the technical pesticide curriculum proved to be a large benefit of online learning to both the client and Extension educators. In addition, the authors asserted, "The technology is also an opportunity for Extension educators to increase their clientele base while maximizing cost and time efficiency." (Fishel & Ferrell, 2010, p. 7).

A recent study of Oregon counties revealed the apprehension of Extension educators in using technology to reach clientele. The study indicated Extension educators are hesitant to transition from traditional program delivery methods, in part due to presumptions made about their clientele and their level of technology use. Additionally, these Extension educators indicated they strongly feel the traditional, face-to-face approach of delivering programs is the preferred method by their current clientele (Diem, Hino, Martin, & Meisenbach, 2011).

A 2012 Pew Research Center report found 94% of Americans ages 18-29, 87% of 30-48 year olds, and 74% of 50-64 year olds regularly access the Internet. Additionally, the report indicates the vast majority of Internet users are accessing the Internet through broadband (high speed Internet). This shift from dial-up to broadband Internet is noteworthy for distance educators, because broadband makes possible the access of online information in many forms, which is limited by dial-up Internet access.

Although the Pew Research Center report statistics support the use of technology to deliver and disseminate educational programs, Extension educators are slow to adapt, even though research indicates there are a number of perceived benefits to Extension educators moving in this direction. Extension educators are commonly apprehensive about this transition due to assumptions made about their clientele, because little research has been conducted to examine client's preference for engaging in Extension educational programs.

The research reported in this article examined clientele's preferences in how they access Extension research-based information, particularly when compared to traditional methods of delivering educational programs. The results of the research was used as a foundation to create a strategic plan for creating, marketing, delivering, and disseminating educational programs and content for a county Extension program.

## **Research Method**

### **Study Participants, Population & Sample**

The initial round of study participants were current clientele of the county Extension program, representing nonprobability sampling. Nonprobability sampling was selected for ease of access to these participants as well as their common characteristics (Creswell, 2011). Because each of the potential study participants had used an Extension resource or attended an educational program within the last year, their contact information was available on an email listserv or access database. In addition to nonprobability sampling, snowball sampling, the process where participants recruit additional participants, was used to increase sample size (Creswell, 2011).

These sampling approaches were selected to examine preferences of both current and potential future clientele of the county Extension program. The only selection criterion of study participants was that they must be a citizen of the county, because this outlined the funding borders. It is worth noting that the limitation of using these sampling techniques is the inability to generalize findings. However, according to Creswell, researchers have the ability to "calculate descriptive statistics on these samples and to compare them with the larger population to make inferences from the sample to the population" (2011, p. 145).

## Data Collection Method

The data collection method was shaped largely by the literature review, with consideration of the project budget, timeframe, and colleague and user input. The purpose of the study was to examine Extension clientele's preferences in accessing research-based information within all county Extension programs. Colleagues within the county Extension office collaborated on the conception phase of survey development. This ensured their buy-in on the research project and relevance of this research to their programmatic thrusts (Patton, 2008).

A qualitative survey instrument was developed to address the gaps in the research, which was revealed in the review of the current literature of clients' preference in accessing Extension educational programs and resources. The survey included an even-numbered Likert-type scale that gauged preference.

The survey also included questions related to age of study participants, their ability to access the Internet, frequency of Internet access, reliability of Internet connection, and the method(s) by which they access the Internet. As the Pew Research Center (2012) report highlighted, there was a correlation between age and Internet. In addition, due to the geographically large county with rural isolated communities, the accessibility and reliability of Internet connections and the devices used to connect to the Internet was speculated to be varied. By asking study participants about their Internet connectivity in addition to the community in which they reside, better insight was provided into individual communities.

SurveyMonkey was selected as the online software program to design and distribute the survey, because this software program has a question skip logic feature. This feature allows respondents to be routed through a survey based on their answer choice selections. In addition, the ability to e-mail a link of the survey allowed for easy distribution of the survey through our current e-mail listserv.

## Analysis Method

The results of the survey were exported from SurveyMonkey to Microsoft Excel. Statistical analysis was conducted individually on each Likert-type scale question and included a reported mean and standard deviation.

## Results

Survey respondents represented a broad spectrum of 103 residents from across the county, ranging in age from 12 to 71. About half of these respondents indicated one or more family members were

enrolled in the county's 4-H youth development program. A quarter of respondents had participated in a Family Community Health and/or an Agriculture Extension learning opportunity within the last year.

The study showed that 85.5% of the participants reported they access the Internet every day. This was followed by 8.7% of study participants reporting they access the Internet five or more days a week and 5.8% of study participants access the Internet two to four days a week. One respondent noted accessing the Internet once a week, and another noted not accessing the Internet. Of the respondents, 93.7% indicated they have a reliable (broadband) Internet connection.

Of the survey respondents, 76.7% indicated they had participated in an online learning opportunity in the past. Through question logic, participants who had participated in an online learning opportunity in the past were prompted with additional questions related to their experiences and preferences with online learning. Of these survey respondents, 38.2% indicated they prefer face-to-face classes, while 25.0% indicated they prefer online learning, and 36.8% of survey respondents indicated they had no preference.

Survey respondents who had a previous online learning experience were prompted with the open-ended question of "What disadvantages have you experienced with online learning?" Of the 71 survey respondents, 69 provided feedback with five common themes emerging through survey response analysis. The five common themes included in order of frequency:

- Lack of social/personal connection with course instructors and other students (n=27)
- Difficulty in receiving clarification or questions answered (n=26)
- Technical or connectivity issues (n=12)
- Student's learning style was not a good match for self-paced learning (n=11)
- Courses were not engaging (n=8)

## Accessing the Internet

Survey respondents reported desktop and laptop computers were used most frequently in accessing the Internet, followed by smart phones and then tablets. Mean ratings for how survey respondents access the Internet are presented in Table 1 (ranked from highest mean to lowest mean).

**Table 1.**  
Mean Rating of Survey Respondents Frequency of Accessing the Internet

<b>Modes</b>	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean<sup>1</sup></b>	<b>S.D.</b>
Desktop/Laptop Computer	100	1.00	4.00	3.87	0.50
Smartphone	84	1.00	4.00	2.44	1.32
Tablet	81	1.00	4.00	1.91	1.23

1Likert scale defined as: 1= Never/Do Not Own 2= Rarely 3= Sometimes 4= Frequently

## Finding Answers

Survey respondents reported they most commonly refer to the Internet when they have a question, followed by asking a friend, then looking it up in a book for an answer. Mean ratings for how survey respondents find answers to questions are presented in Table 2 (ranked from highest mean to lowest mean).

**Table 2.**

Mean Rating of How Survey Respondents Find Answers to Questions

Resource	N	Min.	Max.	Mean <sup>1</sup>	S.D.
Look it up online	101	1.00	4.00	3.78	0.54
Ask a friend	94	2.00	4.00	3.35	0.58
Look it up in a book	94	1.00	4.00	2.96	0.73

1Likert scale defined as: 1= Never 2= Rarely 3= Sometimes 4= Frequently

## Survey Respondent's Preferences & Willingness

Survey respondents were asked to indicate their preferences and willingness in regards to online learning, staying connected (via email vs. postal mail and social media), and method of registration. A scale of 1 to 4 was used to rate preference/willingness, with 1 indicating "Strongly Disagree" and 4 indicating "Strongly Agree." Mean ratings on survey respondents' preferences are presented in Table 3 (ranked from highest mean to lowest mean).

**Table 3.**

Mean Rating of Survey Respondents Preferences on Accessing Information

Preferences in Access	N	Min.	Max.	Mean <sup>1</sup>	S.D.
I'm willing to engage in online learning.	100	1.00	4.00	3.27	0.62
I prefer to receive information through email rather than postal mail.	101	1.00	4.00	2.95	0.74
I use social media to stay connected to local community events & educational opportunities.	101	1.00	4.00	2.68	1.00
I prefer to register for classes/programs through a paper registration form rather than online.	100	1.00	4.00	2.15	0.81

1Likert scale defined as: 1= Strongly Disagree 2= Disagree 3= Agree 4=Strongly Agree

## Implications and Discussion

The results indicated that Extension clientele are generally willing to participate in online learning. However, their preferences tend to lean towards traditional face-to-face learning opportunities. As 38.2% indicated they prefer face-to-face classes, while 25.0% indicated they prefer online learning, and 36.8% of survey respondents indicated they had no preference. These results suggest the importance of assessing the intended audience for preferences of engaging in online learning prior to the development of online programs. As a limitation of the study, due to the sampling technique, the results are unable to be generalized across populations. It is worth noting there was no significant correlation between willingness to engage in online learning and age, contrary to previous studies.

The research reported here provides the initial indicator of the importance of "instructor led" courses with synchronized learning opportunities rather than relying solely on "self-paced" asynchronous learning. With 76.7% of survey respondents previously engaging in an online learning opportunity, the number one disadvantage noted with online learning was the lack of personal connectivity. Survey respondents highlighted the inability to build relations with the instructor and other students as well as the inability to receive clarification from the instructor.

Real time instructor-led courses may also minimize the additional disadvantages survey respondents indicated experiencing with online learning, which were related to the lack of course engagement and difficulty in the time management of participating in self-paced learning. Weekly optional chat sessions led by the instructor may also assist engage students in online learning. Last, the formation of formal or informal small study groups of students may assist build relationships among students.

The last disadvantage of online learning indicated by survey respondents was technical and connectivity issues of online learning. However, with 92.2% of respondents indicating they have broadband, perhaps technical challenges can be more easily overcome. Overcoming these disadvantages noted by survey respondents is important, because addressing these disadvantages may affect clientele's preferences.

Implications of the research reported in this article have assisted in shaping how educational information is disseminated to clientele of the county Extension program. The results support efforts to move away from postal mailings and use email to distribute newsletters and program announcements for educational opportunities. The results also support the importance of providing research-based information on the county Extension website because survey respondents indicated researching online is the number one way they choose to find answers.

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