



TEXAS A&M UNIVERSITY

# A Needs Assessment of Extension Personnel: Communication Channels & Educational Technologies

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## Introduction

- With the COVID-19 pandemic and accelerating technological advances, Extension personnel must adapt to technological trends, developing their skills and implementing them in the dissemination of research-based instruction and information (Dhawan, 2020; Diem et al., 2011; Cummings et al., 2015).
- A centralized, multidisciplinary unit composed of instructional designers and other educational professionals was formed within the agency to support Extension personnel in developing and disseminating educational materials, including online courses, publications, and multimedia.

## Theoretical framework

Rogers Diffusion of Innovations (2003)  
*Characteristics of an innovation*

Relative advantage

Compatibility

Complexity

Observability

Trialability

Adoption

## Methods

This qualitative study aimed to identify factors that affect sustainable adoption and utilization of digital learning support efforts in Extension.

### Data collection

- Seven Extension specialists participated in virtual, one-on-one, semi-structured interviews in September of 2022 to share their experiences working with these services

### Data analysis

- Interviews were recorded, transcribed verbatim, and analyzed
- Descriptive open coding was used to identify congruent themes

Table 1. Participant demographics (n=7).

Pseudonym	Gender	Years of service*	Level of education
Participant A	M	High	PhD
Participant B	F	Low	MA
Participant C	F	Medium	MS
Participant D	M	Medium	PhD
Participant E	F	Medium	PhD
Participant F	M	High	PhD
Participant G	M	High	PhD

\*High: 20+ years of service; medium: 10-19 years of service; low: 1-9 years of service

## Findings

### Barriers to adoption

- Lack of time to engage
- Infrequent communication
- Complex processes and unclear expectations
- A perceived lack of relevant support

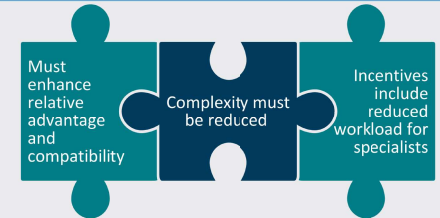
### Communication channels

- Email was the preferred method of communication
- Participants preferred Zoom over Microsoft Teams for virtual meetings
- Participants placed value in phone calls and in-person meetings



Figure 1. Visual representation of frequency of codes applied to data during analysis.

## Conclusions



## Recommendations

### Increasing relative advantage

- Showcasing the benefits of these services

### Decreasing complexity

- Setting clear guidelines in processes, structure, expectations, and communication efforts prior to and during product development

### Enhancing compatibility

- Offering professional development opportunities consisting of educational technology trainings, application of best practices, and strategic dissemination guidance

### Promoting collaborative partnerships

- Fostering a service-oriented culture to build sustainable collaborative partnerships between unit staff and agency personnel

## Example quotes

### Communication

"... I also like to be able to pick up the phone and visit with somebody or in person and not have to be put on a wait list or hold... We can't just throw out traditional communication."

### Processes

"I don't think there's enough time spent on trying to figure out how we're gonna work with one another. Sometimes processes—because everybody's so different in their approach and issues—can make things a little more difficult."

### Support

"... the hardest part of my job over the past couple years has not been living up to [stakeholder] expectations because of our program, it's been living up to [stakeholder] expectations because we're constantly fighting our own support departments."

## References

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