Benchmark Scientists' Understanding of a University Strategic Research Plan

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Introduction

On March 31, 2021, Texas Tech University (Texas Tech) began developing its first strategic research plan (*TTU Strategic Research Themes Development Roadmap,* 2023*).* Five research themes were created with the intent of driving research and strategic hires in those areas. This study aimed to determine what Texas Tech benchmark scientists within the Davis College of Agricultural Sciences and Natural Resources understood about the plan, its themes, and its purpose. It is important for universities that have or will have, a strategic research plan that faculty understand its purpose and how their research fits within it (Fernandez et al., 2023). This research will inform Texas Tech administrators of the development and communication efforts needed to ensure all faculty understand the plan and the role they play in its success.

Theoretical Framework

The Diffusion of Innovations theory (DOI) served as the guiding theoretical framework for this study. This theory postulates that a variety of factors affect the uptake of new innovations and processes within a certain societal system (Rogers, 2003). For this research, the strategic research plan serves as the innovation, and the benchmark scientists of Texas Tech's Davis College serve as the social system. The remaining two components of DOI, the communication channels used and the time frame, are what drive the spread of the strategic research plan throughout Texas Tech's Davis College benchmark scientists. Communication and interaction within a social system drive the momentum of new innovation, from innovators through to laggards, until saturation of the innovation occurs (Kaminski, 2011).

Methods

One-on-one semi-structured interviews were conducted for this study as it allowed the researcher to dive into a response in greater depth or detail (Gill et al., 2008). This qualitative method was chosen over focus groups to ensure that participants felt safe expressing their opinions without risking their employment (Sim & Waterfield, 2019). Eight interviews were scheduled over three weeks. A 25-question guide of open-ended questions was developed. All but one interview was conducted in person and the interviews ranged from 30 to 60 minutes long. Otter.ai, an online transcription service, was used to record each interview and the transcripts were cleaned for any errors. The transcripts were coded by hand using open and axial coding, and themes were developed.

Results

Three key themes, and sub-themes, emerged from the interviews. The three main themes were the following: what a plan can and can't do; knowledge and engagement levels; and plan ambiguity.

What a plan can and can't do

Interviewees were asked what they thought the purpose of the plan was, as well as what the positive and negative aspects of the plan were. The first sub-theme, *plans cannot dictate what research occurs,* emerged because the participants explained **"**My research is my research." Participant 2 stated "Unless there's a research call out there that fits, I wouldn't do it", regarding conducting research for the sake of fitting into the strategic priorities. The second sub-theme, *how the plan should work,* emerged from discussion about what benchmark scientists would prefer in a strategic research plan. Participant 3 said "It works best as a signal" when referring to how a strategic plan should guide research.

Knowledge and engagement levels

Participants were asked about their knowledge of the strategic research plan, its priorities, and their engagement in the development process. Participants also expressed concern about what the point of the plan was and where they fit within its scope. The first sub-theme, *knowledge of the plan and its priorities ranged significantly,* surfaced from questioning the participants on their knowledge of the plan and its themes. Participant 2 said "I can't tell you to be honest, I don't know much about it" when asked to describe their understanding of the plan. Participant 1 asked "You may have to refresh my brain because it has been a while" when probed about the strategic research themes. The second sub-theme, *faculty were either highly engaged or not at all,* emerged from questioning participants on their involvement in the plan's development process. **"**I was on the planning committee for the climate change theme" is what participant 1 stated about their engagement with the plan development. However, participant 3 said "I made some comments... but my impression was their priorities were elsewhere".

Plan ambiguity

Participants constantly stated that the plan felt unfinished and that the university let the plan down with its lack of communication. The first sub-theme, *faculty are unsure what theme they, or their research, belongs to,* appeared from discussion about what themes faculty felt they fit in. Participant 2 described their uncertainty about the plan by saying "A number of people were speaking up and saying that they didn't know where they fit, and I was one of them". The second sub-theme, *funding promises should be fulfilled,* came from conversation on the future direction of the plan. **"**I don't know where we are with the dollars that we were supposedly getting, the strategic hires that they said they would do" participant 1 stated when probed about the funding promised by the university. The third sub-theme, *communication from Texas Tech has been almost non-existent,* emerged because participants stated that "since this plan has been developed there's been little to no communication".

Discussion, Conclusions & Recommendations

Institutions that develop strategic research plans should consider the opinions and expectations of faculty members whose research may be directly affected by its implementation (Best et al., 2015). Administrators should ensure consistent communication with faculty from development to completion and beyond, as well as continuous opportunities for faculty to have input into the plan. This is highly important for the acceptance and diffusion of the plan among all faculty at Texas Tech. Strategic research plans also require significant input from administrators and faculty (Fernandez et al., 2023); therefore, institutions need to allocate adequate resources to ensure continuous administrative effort is given over the lifespan of the plan. This will ensure that the purpose and intent of the plan are effectively communicated and continue diffusion of the plan among faculty.

Future research should include faculty from different departments, including non-science, to understand how they comprehend the strategic research plan and where they fit within it. A comparative study could be done between land grant, or R-1, institutions that have implemented a strategic research plan. A study of this kind could look at similarities and differences between themes, theme alignment with government initiatives, research expenditure, internal grants, and faculty engagement processes. This could help guide future strategic research plans and determine processes to engage faculty throughout development.

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