




Developing a Research Program

An Introduction

1



R1 or R2 Carnegie Classification

- If your university includes doctoral research
 - Faculty are **EXPECTED** to contribute directly to the enhancement and expansion of their university's research and creative scholarship.
 - *This will be reflected in the Promotion & Tenure policies*


2

TODAY

This is a **VERY BRIEF** introduction to developing a research program.

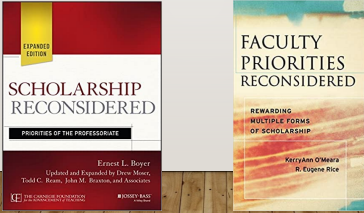


3



Scholarship Reconsidered

- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton University Press.



4


Scholarship Forms



DISCOVERY TEACHING & LEARNING

ENGAGEMENT INTEGRATION

5



Discovery

- Transforming societal problems and questions into useable knowledge.
 - Most closely aligned with traditional research.
 - *Contributes not only to the stock of human knowledge but also to the intellectual climate of a college or university.*
 - *Sharing discoveries through scholarly publication*

6

Teaching & Learning

- Involves the search for innovative approaches and best practices to develop skills and disseminate knowledge.
 - Valuing good theory and best practices as a way to reach and teach students and aspiring scholars and practitioners.
 - *Informal/formal. Teaching, advising, mentoring*
 - Aristotle: "Teaching is the highest form of understanding."

7

Engagement

- Transacting between academics and practitioners who collaboratively seek ways in which to put knowledge to work in the world.
 - Sometimes referred to as the *Scholarship of Application*.
 - Discovering of ways that new knowledge can be used to solve real world problems.
 - *Higher education must serve the interests of the larger community with the application of knowledge to real world problems.*

8

Integration

- Integrating across disciplinary lines to collaboratively construct approaches to societal complex or wicked problems and questions.
 - Bringing findings together from different disciplines to discover convergence.
 - Identify trends and see knowledge in new ways.
 - *Bringing insight to bear on original research with interpretive, integrative, interdisciplinary approaches.*

9



WHAT IS EXPECTED?

10

P&T Policy: Research-related

To Associate with Tenure	To Full Professor
TTU Criteria	TTU Criteria
<ul style="list-style-type: none"> • A record of peer-reviewed publication and/or peer-reviewed creative activity that has contributed to the discipline or field of study to the candidate's intellectual and artistic development, and to the quality of the department; • Generation of external funding, or earnest effort to do so, according to departmental tenure guidelines and commensurate with terms of the faculty member's letter of appointment; • A record of engagement of undergraduates or graduate students in research, scholarship, and creative activity in disciplines where such efforts are specified by departmental tenure guidelines; • Promise of growth in teaching and research or artistic and creative activity. 	<ul style="list-style-type: none"> • Substantial peer-reviewed publication and/or peer-reviewed creative activity. • External funding of scholarship (for those disciplines where such funding is available and expected); • Engagement of undergraduates or graduate students in research, scholarship, and creative activity; • Support for those students (for those disciplines where such support is expected).
CASNR Criteria	CASNR Criteria
<ul style="list-style-type: none"> • Results of research must have appeared in refereed publications, juried presentations, or other professionally prestigious outlets. • Evidence of ability to plan, conduct, and generate external support for independent research and creative activity • Interdisciplinary research is encouraged 	<ul style="list-style-type: none"> • Has demonstrated significant independent and interdisciplinary research and creative activities which are documented by refereed publications, juried presentations, or other professionally prestigious • Establishment of a national reputation and recognition for scholarly competence • Demonstration of success in obtaining extramural funding.

11

P&T Policy: Teaching-related

To Associate with Tenure	To Full Professor
TTU Criteria	
Teaching includes activities that contribute to student learning. Evaluation of teaching shall include effectiveness of course content and delivery, student learning outcomes, and demonstration of up-to-date knowledge of the candidate's discipline. In some instances, teaching may be indirect, primarily in support of student learning activities. Faculty members also influence teaching by designing courses and curricula. Textbooks, articles and other contributions to creative pedagogy, and innovative instructional materials, including documentation related to service-learning outcomes, may be considered contributions to teaching. Leading students on studies abroad is another contribution to teaching. In addition, faculty members influence teaching in less tangible, but no less decisive ways, through activities such as counseling students.	
CASNR Criteria	CASNR Criteria
A. Has demonstrated quality performance as an undergraduate and/or graduate instructor. Assessment is based on: (a) student-teacher evaluations, (b) peer evaluations, (c) student advising (undergraduate and graduate), (d) advising of student organizations, (e) coaching of students for competitive events, or (f) other activities supportive of the educational goals of CASNR. B. Has made positive contributions to Departmental, College, and University instructional program goals. Assessment is based on: C. Has successfully directed graduate student programs. Assessment is based on: (a) number and quality of Ph.D. and Master's degree students advised and (b) number of completed graduate degrees in line with relative percentage appointment in teaching and research/creative activity.	A. Has demonstrated excellence in instruction and in direction of graduate student programs. Assessment is based on: <ul style="list-style-type: none"> • level of courses taught, • student-teacher evaluations, • student advising, • leadership and • contributions to teaching activities of the Department, College and University; and • number of completed graduate degrees.

12

BEGIN WITH THE END IN MIND

13

How / Where to Start

- Build on your experience and interests.
- Where is the money? – securing funding is typically needed/required
- Remember Boyer’s Scholarship Reconsidered (1990) and the four forms of scholarship. Each of these can have a research program.
 - *Discovery* – contributing to the stock of human knowledge
 - *Integration* – synthesizing and integrating knowledge
 - *Engagement* – putting knowledge into action through professional practice
 - *Teaching & Learning* – transforming and extending knowledge through application and theory
- There is no template to follow for developing a research program.

14

How Many?

“Two are better than one if two act as one.”
Mike Krzyzewski, Duke basketball coach

15

Start With the End in Mind

- What do you want to know (or be known for) by the end of your career (a focused line of inquiry)?
 - Or start smaller – **what you would like** your research program to look like ~5 years from now?
 - What will be the focus of your research? What will be your subsidiary interests?
 - To what extent, and how, will your research program be integrated with your teaching?
 - Where and how well will you be known, within the profession or your college/university?
 - What equipment will you have, or have access to?
 - With whom will you be collaborating, besides your students?

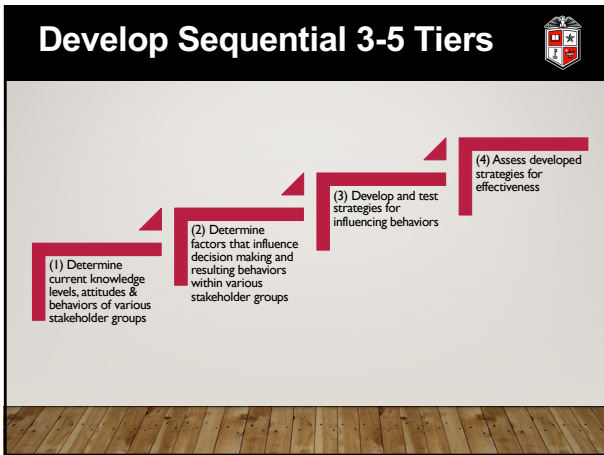
16

Doerfert Research Goals (2002)

1. Building an effective knowledge management system for agricultural water management & conservation.
2. Improve science communication including the complexities of sharing and receiving agriculture between industry stakeholders and the public

17

18



19



20

Objectives Within Each Tier

Tier I	Objectives
A	Define information sources and channels of producers in the High Plains Underground Water District (HPUWD).
B	Describe public and producer attitudes on variety of water-related issues.
C	Describe how agricultural educators provide instruction on water management and related issues.
D	Describe media coverage of water-related issues in the HPUWD

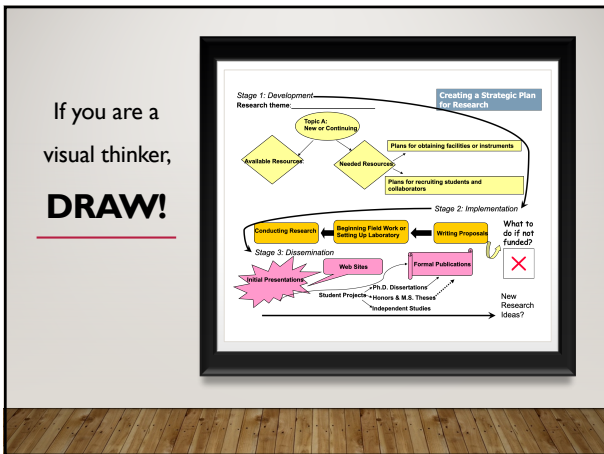
Population Focus Key:
 Green = producers; Purple = educators; Red = media; Blue = public; Black = multiple audiences

21

Identify Timelines & Resources

I	Objectives	Funding	Timeline
A	Define information sources and channels of producers in the High Plains Underground Water District (HPUWD).	CASNR, USDA, Texas Water Development Board (TWDB), Ogallala Initiative	2002-2004
B	Describe public and producer attitudes on variety of water-related issues.		
C	Describe how agricultural educators provide instruction on water management and related issues.		
D	Describe media coverage of water-related issues in the HPUWD		

22



23



24

Which Would You Like to Work On?

Tier I	Objectives
A	Define information sources and channels of producers in the High Plains Underground Water District (HPUWD).
B	Describe public and producer attitudes on variety of water-related issues.
C	Describe how agricultural educators provide instruction on water management and related issues.
D	Describe media coverage of water-related issues in the HPUWD

Population Focus Key
Green = producers; Purple = educators; Red = media; Blue = public; Black = multiple audiences

25

TRACKING & REPORTING PROGRESS

26

Monitor & Adjust

- Make documenting your progress part of your annual review.
 - Show you chair and others that you have a plan.
 - *They may help connect you to others or to resources.*
 - This is a digital file, not carved in stone!
 - *You can make changes as factors around you change or based on chair's feedback.*

27

Annual Review

I	Objectives	Activities and/or Results To-date
A	Define information sources and channels of producers in the High Plains Underground Water District (HPUWD).	Data has been collected and partially analyzed. A paper has been presented at a regional water research mtg.
B	Describe public and producer attitudes on variety of water-related issues.	Two master's theses have been supervised with results being prepared for dissemination.
C	Describe how agricultural educators provide instruction on water management and related issues.	Master's thesis being considered.
D	Describe media coverage of water-related issues in the HPUWD	A master's thesis has been supervised with results being prepared for dissemination.

28

Additional Suggestions

- Find consultants/mentors who were most well known in your area (may be outside of agricultural communications).
- See if other researchers who were funded in your research program focus will review your research program, related manuscripts, and/or related funding proposals.
- Take a course or participate in a workshop on grant writing.

29

Final Reminders

Remember the characteristics of a scholar – integrity, perseverance, commitment, & courage.

Also remember, you are not alone. Reach out to your Ag Comm faculty network!

30