

The focus of my initial faculty development plan is to facilitate my transition from a graduate-student role to that of a professional who contributes to the missions of the department, university, and statistics research community. To succeed in this role, I most need to improve my proficiency in scholarship to meet department expectations. Two of the four scholarship goals involve steps that are new to me.

## Scholarship

### Self-assessment

My primary strengths in scholarship relate to my enthusiasm and perseverance for working through problems and communicating results. My work is generally careful and detailed. I know how to present for understanding, and I write with precision and clarity. I value quality over quantity. I have solid breadth spanning hierarchical modeling, time series methods, Bayesian nonparametrics, and Bayesian computation, although I need to develop greater depth in one area. I have strong interest in acquiring new knowledge and skills.

Productive scholarship usually requires at least two of: creativity, collaboration, talent/technical excellence, and tenacity. I am currently strong only in the latter, and need to work on developing the other three. I recognize that I am often indecisive and inefficient, that I tend to work slowly, and that I often over-do things that never make it into the final product. Although I have begun collaborating and building research pipelines in my first year, I have few publications. I need to more effectively manage multiple projects in parallel.

### Goals

My scholarship goals for 2020-21 are to:

- S1. Establish a sustained pace of publishing two articles in professional statistics journals per year, with one as the first author.**

This goal directly impacts a primary indicator of my performance in scholarship. It helps me become established professionally, and increases visibility and influence of the department and university.

- S2. Seek grant funding for one project annually.**

This feeds another primary indicator for scholarship. External funding provides additional resources and relieves budget pressure on the department and college. This goal may adjust each year as a function of funding status and research (publication) productivity.

- S3. Seek to form new collaborative relationships beyond the BYU community.**

This is important for my professional development and establishment. Building a network across institutions will bolster creativity and result in stronger contributions. This will likely be a multi-year, or even ongoing, effort.

- S4. Work with at least one graduate student and one undergraduate student on projects continuously.**

This goal serves the primary missions of BYU and the department by providing experiences for student growth. It will also help me improve creativity, develop project management skills, and increase productivity. I anticipate increasing this goal after three years.

### Progress and plans

My progress toward Goal [S1](#) is off to an acceptable start. I have one article under revision, and two submitted. Beyond these dissertation papers, I have two or three possible statistical works within six to nine months of submission. To create a sustainable pipeline, I plan to take the following actions during Fall 2020:

- Focus on two priority projects at any given time, with at least one aimed at a top statistics journal.
- Write (formally or informally) for at least 15 minutes daily (M-F).
- Stay current, expand my knowledge, and form new ideas by engaging with literature weekly.
- Continue to work with my dissertation advisor on publishing/extending our joint work.
- Begin a methodological research thread with a new colleague (statistician, inside or outside of the department).

This requires ongoing access to computing, library, and communication resources, all of which are readily available.

To get started with [S2](#), I have participated in a grant-writing workshop sponsored by the Faculty Center. Dr. Heaton has agreed to serve as a mentor and we are collaborating to develop a proposal this year, which will draw on one of our collaborations at BYU. My timeline is as follows.

July-Aug: Simultaneously identify a meaningful problem and plan to address it.

Sep.: Develop a first-draft proposal. Solicit feedback.

Oct.-Nov.: Revise and submit the proposal.

To accomplish [S3](#), I will need to participate in (three or four) conferences/workshops annually. This year has been challenging, although I will have attended three by September. I have identified four conferences to attend in the following year, and will continue to look for more. This will require ongoing travel funding, and I hope to defer some of my 2020 start-up budget. I am currently exploring a potential project with Dr. Page and Dr. Fernando Quintana (Pontificia Universidad Católica de Chile). I also have connections with possibility for applied collaboration with NOAA Fisheries and Lawrence Livermore Lab, although it is not clear whether these could contribute to [S1](#).

I am currently working with two undergraduate students. To accomplish [S4](#), I need to build rapport with students (teaching Stat 240 helps with this, and helps me identify promising students). I plan to reach out to the incoming class of masters students. It is not clear to me if students will help contribute to [S1](#). This goal requires funding for student wages. I have sufficient funds through 2021.

## Teaching

### Self-assessment

I strive to teach with purpose-driven focus, identifying only a few key concepts or skills at any one time, and developing those thoroughly. I try to organize teaching and class structure around those objectives. I emphasize motivating the concepts and identifying their relevance, with the perspective of the audience in mind. I try to meet students where they are, although I need to improve at it. I sincerely want each student to succeed, which they tend to recognize. Students report that I teach clearly, am approachable, respectful, enthusiastic, and that there is a spirit of learning in my classes. My class administration is thorough, and I strive to be equitable.

Although I am often animated when delivering instruction, I am not especially dynamic. It usually takes much of a lecture for me to get comfortable, and sometimes it doesn't happen at all. If I'm not careful, my explanations tend to become overly pedantic and circuitous, as I ask unengaging questions and repeat myself. My assessment techniques are very traditional. I tend to add an unnecessary layer of complexity to my exams, and students have complained of a disconnect between exams and lecture/homework.

## Goals

My teaching goals for 2020-21 are to:

**T1. Improve engagement inside and outside the classroom.**

Lectures are far more enjoyable and impactful to both students and me when there is active discussion. In light of social distancing, we also need a central online discussion forum.

**T2. Personalize and simplify lecture materials.**

I personally believe that slides are visual aids to help students conceptualize and remember the discussion. They should not take precedence over or become the discussion. My experience is that complete slide decks with math and code, while appreciated by students outside of class, contribute to confusion in lecture.

**T3. Assess student learning more simply and efficiently.**

I have a tendency to write long and challenging exams. I take no issue with the challenging part, as long as the difficulty does not surprise or overwhelm reasonably prepared students. Exam coverage need not be exhaustive.

## Progress and plans

I plan to accomplish the classroom portion of **T1** by striving for at least one engaged learning activity per class session. These will usually be example problems to work on in class. Another aspect of improving classroom engagement is to give students (and the instructor) small breaks to regroup and/or formulate questions.

To help students prepare for class, I have required reading. In 2020-21, I plan to improve this assignment by implementing a simplified version of the [SQ3R Method](#) as an LMS quiz before each lecture.

For the online portion of **T1**, I plan to use the free version of the [Campuswire](#) software. This provides a centralized forum for discussion, Q&A, and feedback that incorporates popular features of social media and online forums. I hope this will foster a sense of community even while students are not meeting personally.

My theme for **T2** will be: larger font and fewer words. I already annotate slides during lecture, so this strategy fits in the existing framework.

For **T3**, I plan to take more of a sampling approach to assessment. Specifically, I will:

- Shorten both written and computing portions of the Stat 201 exams.
- Shorten Stat 240 exams.
- Add multiple choice problems to the Stat 240 midterm exams.

I also plan to read [Effective Grading: A Tool for Learning and Assessment in College](#) in 2021.

## Citizenship

### Self-assessment

I strive to be a present, active, and amiable member of the department faculty. I want to be dependable and offer worthwhile ideas/feedback to my colleagues, formally and informally.

I currently serve with Dr. Blades on the Committee for Strategic Planning: Online Courses. We have gathered information about resources for online teaching at BYU, and consulted with colleagues about their experiences and preferences.

I will begin a two-year term as secretary of the Utah ASA chapter in Fall 2020.

## Goals

My citizenship goals for 2020-21 are to:

**C1. Collect and organize experiences/wisdom/ideas regarding online teaching from statistics faculty.**

Many resources already exist, but it could be helpful to compile a resource specifically useful to teaching statistics.

**C2. Serve as referee for one journal article annually.**

Referee service provides experience, helps me stay connected, and helps establish my presence among editors.

**C3. Participate in professional society elections annually.**

Despite ongoing membership, I have yet to do this for national societies.

## Progress and plans

With respect to [C1](#), Dr. Blades and I have begun to survey and collect information. With many classes switching to blended/online, it may be helpful to create a resource to supplement [teachanywhere.byu.edu](https://teachanywhere.byu.edu). I plan to create this resource before or during Fall 2020.

I have served as a referee for one journal article already in 2020. I plan to continue accepting invitations (provided I qualify).