Lessons learned in professional and identity development as part of teaching assistant training program

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Introduction

Teaching assistants play a vital role in the teaching mission of higher education institutions like the College of Engineering at UW Madison. They are often the first point of contact a student may have with their instructional team and the most familiar role model for an undergraduate student questioning a career in the course subject field or academia in general. Not only are TAs vital to the student experience, but they are also potential future faculty, after earning an advanced degree, it will be expected that they know how to teach.

The mission of NEO is to prepare TAs for the charge of teaching, through giving them the skills and tools to teach and engage students, developing their identity as a teacher and skills to advocate for themselves as a professional, and onboarding training and resources tailored for STEM instructors. We prepare them as best we can for the situations they may find themselves in on the First Days in the classroom and beyond, including employment in academia or the private sector. This poster will discuss our methods and Lessons Learned.

What is NEO?

The New Educators Orientation (NEO) TA Training Program is offered every semester to a new generation of first time teaching assistants in the College of Engineering and the College of Agriculture and Life Sciences, averaging 160 participants an academic year. This training is unique across the University of Wisconsin-Madison campus. This day and a half training session is packed with training on teaching and instructional design, campus resources and required onboarding, and professional skills and identity development (See Table 1: NEO Session Titles and Description). These are the common themes you find running through the course lineup (see Figure 1: Program Tracks).

Audience in Context: The audience for the NEO TA Training Program is a diverse group of graduate students from the College of Engineering (80%) and the College of Agriculture and Life Sciences (20%). The graduate students are at all levels of their program, some being new to the institution. There is a heavy representation of international students in attendance in the College of Engineering population. We intentionally keep the training to graduate students-only to provide the TAs an environment away from potential students or instructors so they can ask questions freely.

Methods

There are two types of sessions in NEO: full group sessions offered in a large auditorium to the full group at once and workshop sessions offered in smaller rooms to half the group at a time and the groups switch. Each workshop session is held in rooms with pod seating and movable tables so TAs can discuss scenarios and questions within their group. At the first session, we split the attendees into groups using a randomizing dot on their resource folder.

Session title	Description
Welcome and Resource Session	Presents key resources for undergraduates and graduate students
Workshop 1: First Days	So, you have an appointment as a TA? What are your responsibilities and common concerns about the first day? How do you make the transition from being an undergraduate student to a TA teaching undergraduates? Will you also have time for course work and research? Working in small groups, you will come up with answers to these questions. Experienced TAs will share some of their stories.
Workshop 2: Engaging Students	This interactive workshop will provide strategies for active teaching and learning in your courses, including elements of instructional design, and approaches to promote and assess student learning.
Safety Lunch	This workshop will be an overview of safety awareness. We will discuss key questions: Why is Safety Important? Who is responsible? What hazards exist? How do I respond to emergencies? When do I involve others? Where are additional resources?
Issues of Diversity in Teaching and Learning	As an instructor, you will face issues that affect student learning; those issues may include race, gender, sexual orientation, and sexual harassment/consensual relationships. This workshop will familiarize you with the issues and introduce policies and available resources. UW-Madison values its diversity; you can help yourself and your students thrive in this place. Plan to explore several case studies that are specific to the engineering classroom.
Keynote: Recipe for Success: Balance, Purpose, and Excellence	Learn about how you can harness your goals and mindset to make time management decisions that support your best self and your best work.
Workshop 3: Presentation Skills	Preparation and awareness of effective presentation skills will build your credibility as a teacher who knows the material and knows how to help others understand it. This workshop focuses on delivery skills and the opportunities you have to help your students learn. You will be asked to do a practice presentation that you have prepared and will have a chance to get constructive feedback from a small group of your peers.
Workshop 4: Inclusive Classrooms	You will learn about implicit bias and how this may affect your teaching through group scenario discussion. Learn recommended practices for making your classroom a welcoming space for all students to succeed.

Table 1: NEO Session Titles and Descriptions

NEO covers a lot of material in a short amount of time. The majority of the content is delivered in a lecture format with active learning elements. To maximize the experience, we have chosen to include experienced TA volunteers and group discussion as much as possible. This not only gives the TAs an opportunity to engage actively in their learning, but also in networking with peers across disciplines and witness modeling of identity from TA volunteers. This also serves as a demonstration of our recommended best practices to include active learning and gives the TAs the experience from a student perspective [1], [2].
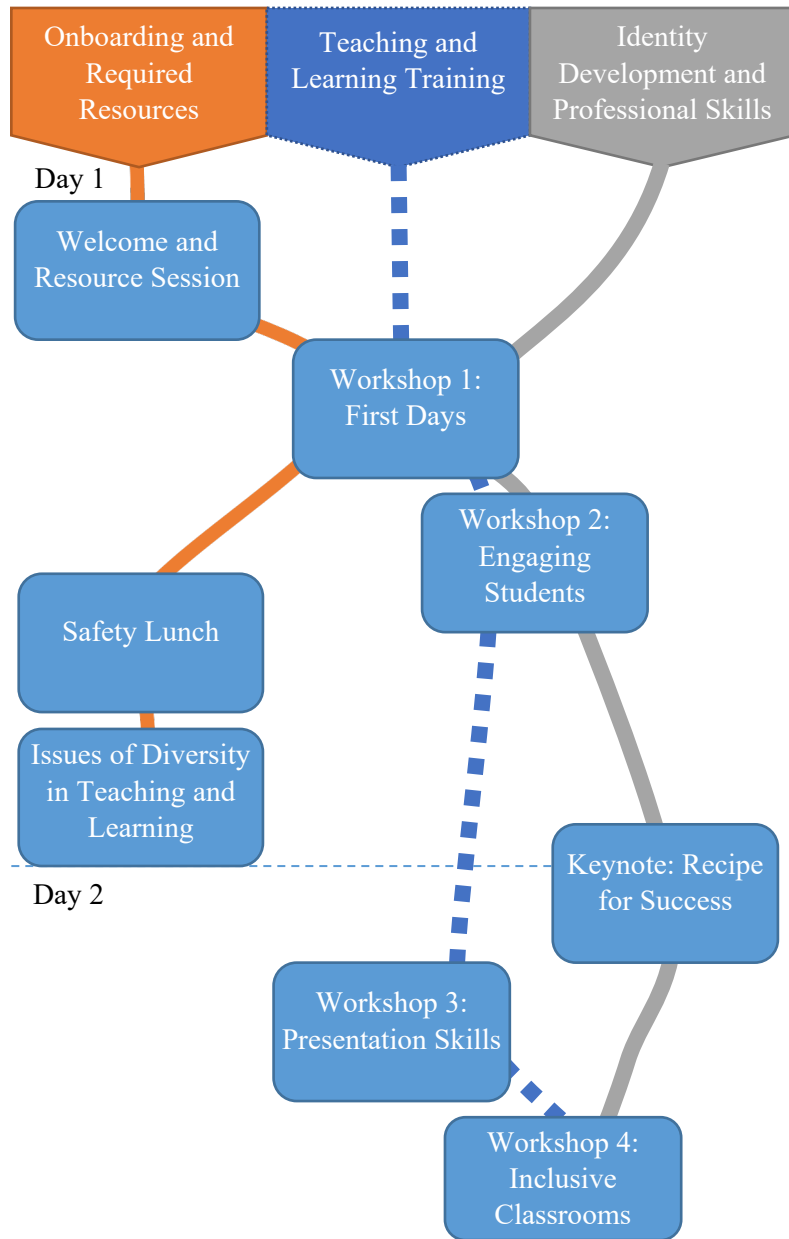
Program tracks

Figure 1: Program Tracks

Onboarding and Required University Resources: Sessions in this track include Resource Session, First Days, Safety Lunch, and Issues of Diversity in Teaching and Learning.

The NEO Program is required training for all first-time TAs in the College of Engineering because we have tailored the program to include engineering specific onboarding resources otherwise required by the University. In the Resource Session, we bring in speakers representing key resources. In Safety Issues, TAs are presented with common hazards and plans for how to provide a safe environment for their students. In Issues of Diversity in Teaching and Learning, campus representatives present the University required equity and diversity training through interactive scenario discussion using scenarios that have actually happened in the College of Engineering. TAs are coached on how to respond in situations of harassment and discrimination based on their employment requirements. This session dovetails with

Inclusive Classrooms which builds upon the employment responsibilities to provide safe, inclusive, and welcoming spaces for students.

Training in T&L: Sessions in this track include First Days, Engaging Students, Presentation Skills, and Inclusive Classrooms.

These sessions focus on engaging students through interpersonal skills, instructional design and active learning. Engaging Students introduces Growth Mindset to the TAs to model for student success [3]. We also distribute tools and resources to help with lesson planning (including Backwards Design and Learning Objectives using Bloom's Taxonomy) and then assign the TAs to present a short presentation and get feedback from experienced TA volunteers. Inclusive Classrooms capitalizes on the basics and takes the next step: giving best practices on how to create an inclusive environment in the classroom, which includes Growth Mindset perspective.

Professional Skills and Identity Development: Sessions in this track include First Days, the Keynote Session, and Inclusive Classrooms.

The NEO Program specifically targets identity and professional skill development for new TAs as a key element of training effective teaching assistants. The reasoning is that if we can help better prepare graduate students for the difficulties they may encounter as teaching assistants and graduate students (classroom authority, power relations, workload, and mental health), that they will develop into more effective professionals and therefore more effective teachers. We discuss how to navigate some tricky scenarios in First Days, leading the TAs in building an identity of an instructor and set clear boundaries around time and workload. Using a tool drafted by the UW Madison Teaching Assistants Association, we coach the TAs through discussing the expectations of their time management with their supervising instructor, starting them to value mutual respect and transparency. We follow up on this thread with the Keynote on Day 2 in discussing how goal setting can assist in time management by prioritizing the daily and professional choices you make. We present Growth Mindset again as a tool for personal achievement in the Keynote as well, building on what we presented in Engaging Students [4]. Then in Inclusive Classrooms, we present how individual unconscious biases can affect us and our classrooms as teachers and encourage TAs to self-reflect on their role as authority figures in some scenarios and confront their bias where they can.

Lessons Learned

NEO has been offered since 1997; the authors have been presenting NEO in its current form since 2016. Each session we ask attendees for self-reported feedback (free response questions and Likert scale 1 to 5 on knowledge gained, quality of content and presentation, and satisfaction with workshop). Data collected are intended for program improvement and are not rigorous. The lessons we have learned over the past several years will help to shape the future of NEO.

TAs come into NEO without much of an idea of what their role will be. This can be a frustrating and anxiety producing situation. First Days has continually been a highly rated session (>4.6/5 average academic year 2019-2020) because we address those feelings and give TAs a start to their identity as an instructor. We give them a path to get from not an instructor to an instructor, and get experienced TAs to model what they have learned. Having the experienced TA volunteers is vital to the program and to the success of TAs; written and anecdotal feedback highlights TA participants highly value the perspective and experience shared by the experienced TA volunteers.

The Keynote session offering information on goal setting, mindfulness, Growth Mindset, and time management is still rated highly on average in terms of satisfaction (4.23/5 average academic year 2019-2020), though the self-reported "amount learned as a result of the session" has decreased to 3.38/5 in Spring 2020. It seems more TAs are aware of Growth Mindset and goal setting skills, though we still receive a lot of written feedback that the session is affirming and necessary, that TAs feel validated and supported hearing this message. While not all TAs walk away highly affected by this session, those who are, report deep appreciation for being exposed to this message. We are watching this trend to see when it makes sense to redesign this session.

There is limited time to offer all the training needed on teaching skills and instructional design. We often receive written feedback that TAs would like more information on specific facilitation styles (laboratory facilitation vs. a flipped classroom environment vs. online) where now they receive general guidance on facilitation and interpersonal relationship development. As NEO moves forward, we will examine reallocating time so we can add other types of facilitation skills to better serve laboratory TAs and flipped classroom/online facilitation methods.

The future of NEO will incorporate the feedback above and continue to build on existing strengths. NEO brings TAs from all of the fields of study within these two Colleges together so they can interact, providing a singular networking opportunity which is explicitly encouraged. NEO presents the holistic benefits of the skills TAs are learning, not just for their role as a TA, and use this as a framing for the whole training program. We approach the design of NEO with the perspective that if we can help TAs develop skills to succeed in their own goals that they will have more capacity to help their students succeed. More than simply training and onboarding, we present new TAs with these perspectives so they have the tools to mindfully approach their work as instructors, graduate students, members of the engineering and scientific communities, and above all, as human beings. Further study is required to determine effectiveness of the training.

Sources

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[4] Hochanadel, A., & Finamore, D. (2015). Fixed And Growth Mindset In Education And How Grit Helps Students Persist In The Face Of Adversity. *Journal of International Education Research (JIER)*, *11*(1), 47-50. https://doi.org/10.19030/jier.v11i1.9099