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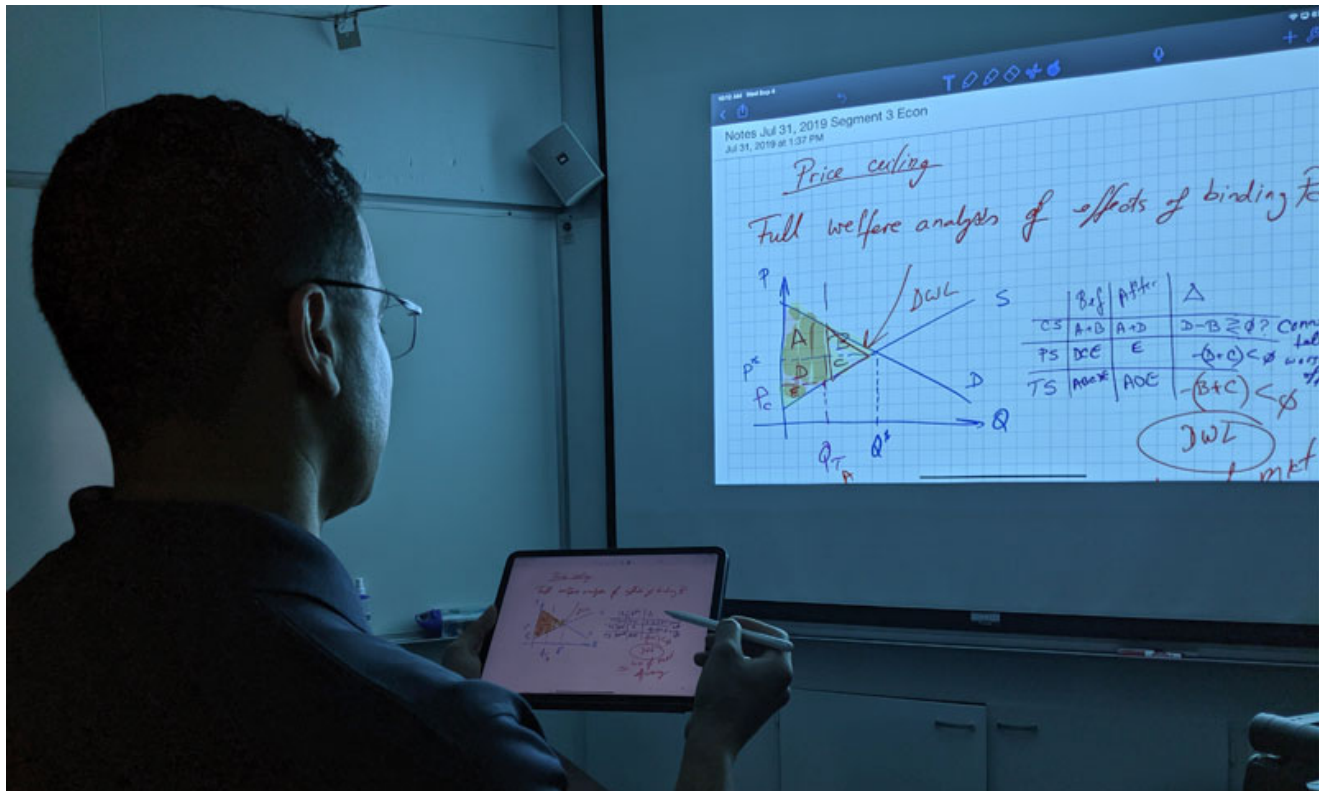


TLC Mini-Grants Program Seeds Innovative Efforts Across Campus

Matthew Schehl | October 2, 2019

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U.S. Navy Lt. Jesse Hernandez Rodriguez demonstrates a project on wireless collaboration with classrooms on campus that he and Graduate School of Defense Management Professor Simona Tick developed through a Teaching and Learning Commons Mini-Grant.

When Naval Postgraduate School (NPS) faculty and students speak, the university's **Teaching and Learning Commons (TLC)** listens.

In response to input from the NPS community, the TLC has awarded a dozen **mini-grants** over the last year to expand the university's pedagogical horizons. In supporting a range of innovative ideas from faculty and students, these grants plant the seeds that may grow and

spread into more effective ways NPS learns and teaches.

“The bottom line is we’re listening to you,” noted Dr. Ralucca Gera, TLC director and Associate Provost for Graduate Education. “Tell us how we can support you to be able to use the classrooms differently than before and how to improve the quality of the education.”

Not all students learn the same way, she said, and the mini-grant initiative affords faculty the opportunity to meet students where they’re at.

Since time immemorial, the pedagogical model has tended to be immutably passive: an expert, a piece of chalk, a board, and students scrambling to take notes to the best of their abilities. But times are changing, as increasingly tech-savvy students are hungry for more active, engaged methods of learning.

“For someone who does the chalkboard, that may work perfectly for them, but how can we still support you? Maybe it’s a travel mini-grant to bring in a guest speaker or to attend an important professional conference,” said D’Marie Bartolf, NPS’ Coordinator of Education Innovation who manages the mini-grant program.

“We’re not trying to tell you using a chalkboard is wrong, but we also want to know if there’s something else that can be brought into this environment that can enhance the experience for your students,” she added. “What can we do for you to empower you to take the next step forward?”

The TLC mini-grants have already covered a broad swath of academic territory, including high-powered rockets, a mind-mapping tool, novel wireless class communications, visual reality goggles and a glass writing board enabling face-to-face communication between professors and students.

Awards have varied in type and amount – averaging around \$3,000 – but they all have one thing in common: they can be scaled beyond the requester’s immediate domain to improve the educational experience throughout NPS.

“The idea is that if we provide you with just a small amount of money, what can you do to make a big impact?” Bartolf said. “The best-case outcome in my mind is just breaking down barriers for what we can do in our spaces.”

Such was the case for Tom Murphree, associate research professor in NPS’ meteorology department and one of the mini-grant initiative’s first awardees in Summer 2018.

Murphree received a mini-grant for NPS to acquire a license for ClimateLab, a tool allowing users to easily analyze, visualize and make projections with very large global climate data sets. While immediately invaluable for teaching and learning, thesis research and course

development within meteorology and operational oceanography, ClimateLab is a versatile tool applicable across a wide range of disciplines.

“ClimateLab is extendable beyond people who work with environmental data, and we’re actually starting to experiment with putting in what we call activity data information of ships at sea and airplanes in the sky,” Murphree explained. “It’s people at NPS interested using [Automatic Identification System] data to track sea-going vessels; people in physics and engineering who need to know about the environment in which their equipment is operating; it’s also people in operations research, information science and defense analysis that need to understand, for example, the relationship between weather, climate and conflict.”

This wouldn’t necessarily be possible without the TLC mini-grant, he said, as they open doors to new ways of doing things that research funding doesn’t cover.

“For most of us, the outside funding we have is for research, not teaching and learning: we might have the research funding, but it can’t easily be applicable to a technology that’s primarily intended to help the students learn,” Murphree said.

“The mini-grants are a great way to get the community more engaged with the latest and greatest potential technology to support teaching and learning,” he continued. “They’re also pretty quick and efficient: a lot of times working with the government it can be a pain if you want to buy something, but TLC made it easy and relatively painless.”

This is, in fact, the *raison d’être* of the TLC.

Since its inception in the Spring of 2018 as an action area identified in the university’s 2018-2023 Strategic Plan, the TLC has endeavored to be the catalyst of a stimulating, revolutionary teaching and learning environment to best educate its unique student population, and Gera knows first-hand what that means.

“I’d been teaching at NPS for 13 years before I took this job and I was always looking for ways to experiment in my classroom, but often these ideas couldn’t get traction because of a lack of funding or space,” Gera said. “So when I got this job, one of my first thoughts was to hear from faculty what they would like: what would you as faculty want to try?”

Gera made this the mission of the TLC: listen, engage, experiment and then support the faculty moving forward.

Recognizing that accomplishing this takes a village, she integrated the wide range of specialized services and resources to better support NPS’ academic mission, including the **Center for Educational Design, Development and Distribution (CED3)**, the **Dudley Knox Library** and **Information and Technology Communications Services (ITACS)**. She

also engaged with faculty, students and staff to connect experiential learning efforts across campus, such as the **Modeling, Virtual Environments and Simulation** (MOVES) Institute and the **RoboDojo**.

“Think of the TLC as a cohesive, virtual umbrella organization over existing centers - nobody belongs to the TLC, but we bring together faculty and student perspectives as well as the technology to support their requirements,” Gera emphasized. “Our focus is to enhance teaching and learning and instill awareness of the resources that faculty and students have for that.”

The crux of the enterprise’s success comes down to communication, and the TLC has gone to great lengths to engage the NPS community: a series of **Open Forums** highlighting critical issues, surveys, visiting departments to determine the best ways to support them, and ... the mini-grant initiative.

“The mini-grant was one of the ways for us to listen to the faculty: what else do you want to do?” Gera said. “And whatever that is, you’re going to be supported because we make sure this is compatible with our systems so that you’re not finding hiccups with it.”

For Navy Lt. Jesse Hernandez Rodriguez, receiving a TLC mini-grant was a lifesaver.

His second quarter at NPS in Summer 2018 was brutal: having been out of school for several years meant the fast pace of the Graduate School of Defense Management (GSDM) was “challenging.” He was having a hard time keeping track of the plethora of papers, books, notes and notebooks he was rapidly accumulating.

He and his wife were soon expecting their second child as well, yet complications necessitated she be admitted to a hospital in Salinas, Calif., for intensive care and Hernandez Rodriguez strongly felt he needed to be at her side as much as possible.

“We spent so much time at the hospital,” he recalled. “I still had my school responsibilities, so imagine having to stay overnight with thick books strewn all over the hospital bed!”

As a graduate student in GSDM’s Manpower System Analysis curriculum, Hernandez Rodriguez has a penchant for efficiency. Faced with the Herculean tasks before him, he was determined to find a way to work smarter, faster and better.

Turns out, there’s an app for that: Reflector 3 by Squirrels LLC, which wirelessly mirrors a phone, tablet or computer to the big screen and other devices. Streaming video can also be recorded for review and, when integrated with note taking programs on a tablet, can become a powerful tool in a classroom setting.

“I found a way on my tablet to become much more organized, with everything I needed going to the cloud,” Hernandez Rodriguez said. “I thought it would be great for me to take and save notes along with recorded lectures.”

Call it synchronicity, but often the timing was just perfect: Hernandez Rodriguez ran the idea by his quantitative methods professor, Dr. Simona Tick, at the same time as the TLC broadcasted a call for mini-grant applications.

“He basically suggested we could partner up and maybe try some of these features, or even recording simple work exercises that might help students who otherwise might be falling behind in the coursework,” she said, and suggested he apply for a mini-grant.

Tick immediately recognized the potential of the wireless communications technology for her classroom. The screen mirroring software could do so much more than a whiteboard and markers in engaging her students, she thought: video and audio of her lectures could be posted to Sakai - NPS’ interactive student and faculty portal - for students to master harder concepts, students wouldn’t have to squint into awkwardly-lit angles to read her writing and could review her explanations at leisure.

Along with GSDM assistant professor Alan Ballard, Tick threw her full support behind Hernandez Rodriguez to apply for a TLC mini-grant; he received the grant for the Fall 2018 quarter, transforming the idea into reality.

“It was very, very effective,” he recalled. “I would be laying with my tablet on whatever little couch I could find at the hospital, a textbook on half of the screen, my notes on the other, and I was able to submit my assignments while I was there.”

“You don’t need anything other than that tablet,” he continued. “You have the whole school, the whole textbook, all the files on just that one screen and that’s it.”

Hernandez Rodriguez is now in his fifth quarter with a stellar academic record, and he and his wife have two healthy children. The Navy lieutenant walked away from that rough patch feeling listened to by the TLC and NPS faculty as he struggled to carve his way.

“It’s obvious they care; that they want to be innovative,” he reflected. “They are truly interested in providing the best educational experience for all of us and making sure that our voices are being heard.”

The TLC intends to only strengthen this as it moves forward.

The awards over the last year have focused on faculty technology and student input, and have broadened most recently to include travel and international student education. On the horizon is expanding the quality of NPS’ distance learning programs, according to Gera.

“My hope with these mini-grants is that we really spark the imagination: learning what we can do and expanding what we can do in the classroom to get students excited,” Bartolf said. “As long as we can keep people imagining and trying out new things, then we truly are a living teaching and learning ecosystem, and that’s the goal.”

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