# TEACHING STATEMENT

## Professional Teaching History

I have been very lucky to gain experience in teaching in different kinds of environments. After completing my bachelor's in Electronics Engineering (1992), I taught computer hardware in a training center in Chennai, India. That was the time when a lot of interest was growing in the computer field. The courses catered to a diverse population with respect to age, educational qualification, and background experience. There were high school dropouts, students looking for a career and engineering graduates. It was challenging to address their varying needs, but I enjoyed teaching because I learned to motivate them by personalizing the instruction.

Having completed an MBA in Marketing, I taught Business Organization at a university in Lucknow, India. Here I faced a new challenge with language because I did not speak the local language of that place. My students were not very comfortable with English and hence I had to change my instructional strategies to reach them and teach them. The class was large, and it was difficult to personalize instruction. My students recorded my lectures on their mobile phones to listen again at home. This served as an early form of educational technology, way back in 2005. I learned to find innovative solutions to instructional problems.

I taught several sections of Physics, Math and Environmental Science to middle school students at a K-12 school in Lucknow, India. Teaching STEM subjects is always a challenge especially in classrooms with 40-45 students. During this time Math Lab was introduced by the school. This allowed me to demonstrate Math problems using models. I implemented project-based learning by guiding my students to build models to connect Math to the real world. In my Physics classes I demonstrated various experiments using home-made apparatus. My students had fun watching me do this on the classroom table. They yearned to go to the labs, however school rules and the curriculum prevented that. I learned the importance of hands-on activities.

The best part of my experience while teaching middle school students is the interest they showed in learning about their environment. Although, Environmental Studies was taught only once in a week, my students wanted more. They would complete their class work for Math and Physics and ask me to talk about the environment. They found this subject more relevant to their daily lives. I found that while teaching socio-scientific topics, providing cognitive knowledge was not enough. Educators had to ensure attitudinal learning, that is affect learners emotionally and change their behaviors, besides providing knowledge. I learned that relevance was important, for instruction to be successful.

All the above examples discuss the learning I gained while teaching, although these experiences lasted for few years only. When I decided to go back to college in 2015, I started to look for programs that would make me a better teacher. Pursuing other careers removed me from the career I was passionate about that is, *teaching*.

## Current Teaching Experience

The Learning, Design, and Technology program at Purdue University set me on my journey. I learned about instructional design, theories, instructional models, and educational

technology in the master's and doctoral program, that shaped my teaching goals for the future. I realized that what I was doing intuitively several years back were grounded in theory.

At Purdue University, I co-taught two face-to-face graduate level courses with faculty: *Learning Theory and Instructional Design*, and *Advanced Practices in Learning Systems Design*. From these teaching experiences, I learned to facilitate case-based learning discussions, problem-solving activities, and to provide constructive feedback while grading student assignments and projects. From Fall 2017 to Spring 2020, I taught the face-to-face Foundations of Educational technology course as a teaching assistant every semester. I engaged my students, who were undergraduate pre-service teachers using both interactive lecture sessions and gamification strategies. I guided them to design and develop interactive lessons using different digital tools that will help them in their future teaching careers. I designed a module on game-based learning with activities and handouts to introduce this emerging technology as a pedagogical tool to the future teachers. Samples of anonymous student feedback:

> *Something Shamila does well is she really makes sure you understand what the assignment is asking for and how to succeed in the class.*

> *Shamila is very good at giving feedback. When I turned in my assignments it always felt that Shamila cared and wanted to help me. Felt very personal and I appreciated that.*

Online learning environments require a modified instructional approach. I was lucky to get multiple opportunities to teach online graduate level courses as a co-instructor, from 2017 to 2020 in the Purdue University Online LDT program. Courses include *Project Management in Learning Design and Technology, Foundations of Learning Design and Technology*, and *Advanced Practices in Learning Systems Design*. Each course implemented different instructional designs such as case-based learning, project-based learning, and team projects. By facilitating online discussions using thought provoking questioning strategies, I kept students actively engaged with the topic while promoting critical thinking. I provided constructive feedback on student projects, competency badges, literature review assignments, and digital artifacts, helping them explore beyond the course requirements and materials. To engage learners using multiple modalities and to be mindful of their time, I implemented asynchronous gamification strategies using Kahoot! Challenge and online polls. These tools allowed me to judge students' learning and made the course more interactive and fun for the students. Samples of anonymous student feedback:

> *Shamila is extremely knowledgeable about the course. She offers great insight, as her examples are always based in real-world experiences, and I greatly appreciate that.*

> *The instructor and the co-instructor are phenomenal in providing constructive feedback and asking thought provoking questions that extend the learning beyond the assigned articles. The instructors go beyond to reach out to the students to ensure learning happens.*

Research in Instructional Design and Teaching

My research agenda encompasses the application of various research methodologies to study learning environments in the instruction of different subjects. Particularly, I research instructional design courses, and attitudinal learning implementations in multicultural education

and environmental sustainability courses. I prefer mixed methods research studies because they not only reveal what happened, but they also reveal why something happened. My collaborative research projects with faculty and peers have resulted in the publication of several papers. I have conducted multiple case studies on online learning and face-to-face courses, qualitative research studies on Massive Open Online Courses (MOOCs), and mixed-methods studies on MOOCs and Digital Game-based Learning (DGBL) environments. From the research studies I learned that each type of learning environment has its own affordances and limitations, and that instructors need to leverage the best possible combination of instructional strategies.

In addition to several instructional design and development projects, I am also worked on a qualitative case study for the Teaching Academy at Purdue University under an initiative of the Provost's Office. The Teaching Academy was tasked with defining teaching excellence and determining how to document, evaluate and recognize excellent teaching. As a result of this study a definition for teaching excellence was proposed, and a framework for evaluating teaching excellence was created. Our team is working on a scholarly publication, and the development of a campus-wide guide for Teaching Excellence. This guide will have both an online component and a hard copy. This experience helped me understand what made a faculty member an *excellent teacher*. Why do students love them, what do they do correctly in-class and out of the class, what instructional strategies do they rely on, how do they assess their students, how do they incorporate innovative instructional methods, and how do they help peers by disseminating their best practices. Developing the Teaching Excellence framework based on this study opened my eyes to how I can develop as an excellent teacher.

## Future Teaching Goals

All the experience I earned so far have provided me with some insights into what constitutes excellent teaching and what I need to strive for. Teaching can never be the same for everyone. Opportunities and challenges are different with respect to the learning environment, students, their learning experiences, prior knowledge, age, language spoken, and so on. I will continue to personalize instruction whenever possible so that my learners are motivated to learn. Since learning is greatly enhanced when learners are given opportunities to learn through hands-on learning techniques or by directly applying their learning within the learning environment, my instructional strategy would be to ensure learning application in an active learning environment. Learning should be an enjoyable experience and I believe gamification will help me achieve that both in face-to-face and online courses. I am also exploring the use of game-based learning and augmented reality (AR) as emerging technology platforms that will meet the learning needs of digital natives. At the same time, I firmly believe that technology should be used intentionally and not for the sake of using it. The learning gained from faculty, peers, experts at conferences and from research, will continue to shape who I am as a teacher.

Someone somewhere said, "Live as if you were to die tomorrow. Learn as if you were to live forever." This saying truly sums up who I am as a life-long learner and a passionate educator.