

LEARNING TO TEACH AS GRADUATE TEACHING ASSISTANTS (GTAs) AT SUTD

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Picture taken at “Teaching at SUTD: Engaging the Learners” Class, SUTD, February 2017

A recent trend in universities is to move towards a more student-centered learning environment, where classes are taught in small groups. SUTD is no exception. The role of a teacher in this setting is transformed to be more of a facilitator and the student to faculty ratio is kept low so that students get more personal attention from their instructors. To aid this, and to make teaching and learning more inclusive, graduate/senior students are engaged to support the lead instructor and the instructors teach in teams. Hence, it becomes crucial to educate and train graduate students to teach as teaching assistants.

To this end, the Learning Sciences Lab (LSL) at SUTD offers a pedagogy-focused course called “Teaching at SUTD: Engaging the Learners” for graduate students. The course aims to prepare graduate students for teaching assistantship at SUTD. LSL offered the course for the first time in January 2017, and a group of 33 students took the course. This was a 6-week course that introduced participants to SUTD’s teaching philosophy, various active learning pedagogies such as design-based learning, studio-based learning, project-based learning, team-based learning, facilitation skills and assessment practices, ending with an opportunity for all participants to

teach in microteaching sessions amongst their peers so that they could learn from each other. The course adopted active learning pedagogies that it promoted and many of the students found the course insightful and eye-opening.

Three participants from the first batch share their learning experiences here. It is interesting to note the change of perspectives on teaching and learning when a student takes on the role of a teacher. Learning

outcomes are no longer just a ritual. Assessments are not just a way to categorise students. Active learning is not just about activities. Overall, an immersive experience such as this course on pedagogical skills seems to have been useful to the graduate students, and the hope is that this translates to their teaching and thereby benefits their students. This is just one of SUTD's many efforts to make teaching and learning impactful.



NG JIA YI (GTA)

After going through this course, I see teaching differently. My greatest takeaway from this course is actually the concept of “constructive alignment”. Constructive alignment refers to the coherence between learning outcomes, teaching/learning activities, and assessment.

In the past, I paid little attention to the learning outcomes. When professors passed us the course syllabus, I would skip the learning outcomes portion because I thought it was just customary to include it. Now, I learnt that the outcomes are closely tied to the course content and assessment methods and that the intended outcomes could direct our learning more purposefully.

My knowledge on teaching methods has also been strengthened through this course. Prior to the course, I kept hearing terms like “hands-on teaching” and “active learning” without really understanding them. From this course, I learnt about the various teaching and learning activities (problem-based, design-based, project-based, team-based, active learning), and also their differences and advantages. Many of us tried to include active learning during our microteaching session since it is the least time consuming student-centered learning activity.

Appropriate assessment methods are also important. I realize the flaws in grading based on bell-curves from Bigg's article that says good teaching should reduce the gap between “academic” and “non-academic” students than creating a good spread in grade distribution.

Before the course, I was under the impression that “teaching” refers to the teaching and learning activities only. I never realized that clearly defining learning outcomes and assessment is just as important as the teaching and learning activities. I am more aware now that aligning the three of them is essential for impactful teaching.

NGUYEN THI NGOC (GTA)

Going through the “Teaching at SUTD; Engaging the Learner” course has broadened and strengthened my conceptions of teaching. I have summarized my understanding in few pointers

Teacher-centered and student-centered teaching methods: The art of combination

Student-centered teaching method is one of the key concepts covered in this course. In student-centered learning, both students and instructors share the learning focus and are actively involved, interacting with each other. Students are encouraged to learn through group works, collaborations and communication.

However, teacher-centered teaching method has its own merits. The classrooms are quieter and orderly. Students learn to be independent, raise their own ideas, make own decisions and will not miss an important topic as they may in student-centered teaching method environment.

To me, effective teaching is not one or the other but the combination of both. The discussion about the art of this combination deserves deeper investigation and study.

Explore alternative learning and teaching methods

I got an opportunity to explore, differentiate and compare some student-centered teaching and learning strategies, such as problem-based learning and team-based learning, in class. For instance, I learnt that team-based learning is not just studying in teams.

Learn while teaching

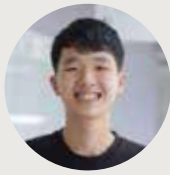
During the two sessions of microteaching, I learnt from my peers and from myself by reflecting. Teaching and learning is essentially about collaborating. To become a better teacher, one needs to continue to learn their subjects, how to teach, and continue to improve how they teach in the classrooms.

Do our own homework

When introducing a new teaching method to students, it is important to create a safe environment. We need to get an idea about the diversity in cultures, backgrounds and learning habits of students, as well as students’ average work load to balance up our coursework requirements.

No one is perfect

Teaching is a learning journey that does not always guarantee success in spite of being well prepared. We may not know everything but we can be flexible, adaptive and creative in solving problems that arise while teaching.



TAN CHEE HOW (GTA)

Having spent my undergraduate years at SUTD, I experienced the cohort-based learning, hands-on learning, and designette-based learning approach. Unsurprisingly, my prior conceptions of teaching have been shaped by these experiences. My prior conceptions is that teaching is about engaging students in learning activities, such as active learning, collaborative discussion, and designettes, to better understand and apply fundamental principles learnt in class to real world application.

However, having gone through this course, my conceptions of teaching have expanded beyond merely employing interactive learning activities to engage the learners. I am more aware of Bigg's model of constructive alignment - that the learning outcomes, teaching and learning activities (TLAs) employed in class and the assessment tasks need to be aligned.

I had a chance to practice the principle of constructive alignment in preparing and delivering my microteaching session. I realised that choosing the appropriate assessment for the given learning outcomes requires much effort and consideration- it is not so simple. Hence, my conceptions of teaching changed from the naive notion of simply employing interactive TLAs to engage the learners, to the careful selection of TLAs (in conjunction with appropriate assessment) to reflect the learning outcomes.

The course also equipped me with various student-centric teaching methods, each with their unique sets of TLAs and assessments, constructively aligned to achieve a wholly different outcome. For instance, the studio-based learning approach struck me the most. It employs TLAs and assessments in a holistic and authentic way to mirror professional practices in creative fields.

Beyond Bigg's model of constructive alignment and the various student-centric learning methods, the course has also made me more aware of skills needed as a GTA, particularly facilitations skills. Facilitation skills include Socratic questioning, active listening and communications skills. These skills are essential for teaching, for class management, and engaging the learners.

Overall, going through the course gives me a good understanding of teaching skills, and I feel more confident.

ABOUT THE AUTHOR



Dr. Nachamma is Assistant Director of Learning Sciences Lab. She teaches the graduate course "Teaching at SUTD: Engaging the learners". Her research interest includes student-centered learning, technology-enabled learning and faculty educational development.