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Research-based Teaching at Kathmandu University

This research project has roots in several years of Professor Fynewever's research in formative assessment in the college-level science classroom in the U.S. *Formative assessment* can be defined as the ongoing measurement of student learning *while* the learning is *happening* (not *after* the learning has *happened*). Most professors do not undergo any kind of professional development in terms of considering pedagogy. However, Professor Fynewever and his previous research students have discovered that formative assessment techniques are still being carried out despite professors being unaware of the research on such teaching practices.

Professor Fynewever had the opportunity through the Fulbright Scholar program to spend a semester in Nepal teaching and gathering data on how chemistry professors at Kathmandu University use formative assessment. Ultimately, formative assessment became the lens to the analysis of our research this summer. Our research team focused on teaching styles more broadly and the role culture has in the Nepali college classroom.

We began our research by listening to interviews Professor Fynewever had with six Nepali chemistry professors. We transcribed these interviews and used software to find themes within our data. Themes were identified through comparison with a "codebook" developed in previous summers (e.g. The code "Dialogue in Class" is assigned when communication occurs between the professor and student(s) in the class). Analysis of these trends guided our writing of case studies for each professor in order to offer a story of their teaching styles. Finally, we developed a list of conclusions to give insight on our main observations from Kathmandu University. Eventually we will publish an article highlighting the benefits of cross-cultural interactions and how to incorporate international perspectives into the classroom.

One of the conclusions that stands out from this project is the cohesiveness of Nepali students. The students are very supportive of each other and are able to make decisions together for the whole class. This is aided by the fact that students from a given major take all of their courses together at the same time and have the same daily class schedule. The stark contrast to what is seen in American colleges and universities is notable. Although a complete transformation to the Nepali system is not feasible, we see how it could be beneficial to offer more opportunities for students to interact within a given major. This is just one example of a cultural difference we observed and are considering for our publication.

Overall, this summer research project has been a positive experience for me. I've had the opportunity to work collaboratively and independently on aspects of this project, growing the diversity of my academic abilities. As an integrated sciences education major, I've enjoyed having the opportunity to contribute to research so pertinent to my aspired career. I hope to continue learning more about the influence culture and education have on each other.