

1145-J5-1031      **Jungeun Park\*** (jungeun@udel.edu), 501 Ewing hall, Univ. of Delaware, Newark, DE 19716.  
*Calculus TAs' teaching practice and reflections.*

In this study, we investigated the characteristics of the first time single variable Calculus TAs' teaching practice and reflections on their teaching. In our analysis we focused on how TAs addressed quantitative reasoning in their discussions of functions and the derivatives in the derivative unit using three views of function - correspondence, variation, and covariation. We also examined TAs' reflections on their own teaching using video-stimulated recall during two interviews before and after the professional development (PD) focusing on different quantities and their relationships involved in the definition of the derivative. Our analysis showed that most of TAs' classroom discussions and reflections on both the derivative at a point and the derivative of a function matched with the correspondence view of function with algebraic representations. TAs used correspondence dominantly even when they used graphs or solved related-rate problems, which are often used to emphasize variational and covariational nature of the quantities involved. There was some transition towards variation and covariation in reflections occurred after the PD, but their descriptions were still limited. The TAs mainly acknowledged that quantities change without describing how they vary or covary. (Received September 18, 2018)