This paper applied the integrated observational dataset to train the classification of the EP El Niño, CP type El Niño, and La Niña with supervised learning and to investigate the ENSO diversity changes in multi-model large ensembles. Specifically, they found the supervised machine learning can reasonably classify ENSO events/types and the observed increase of CP El Niño events is within the range of internal variability after 1950 but not for the entire observational period. The research topic is interesting and necessary, and the authors have well-addressed the comments from the first review. Therefore, this paper should be accepted in Earth System Dynamics.