In this talk, I present an empirical study on students’ enactment of dynamic geometry tasks in an axiomatic geometry course. Students constructed a Klein model in a Dynamic Geometry Environment (DGE) and investigated angle measurements and parallel lines in this model. In submissions of their work in class, students produced screencast presentations demonstrating how they created and examined constructions in the DGE. Given the observable changes on the screen of the recordings, I generated codes to identify students’ purposeful uses of the DGE in association with their verbal responses. The analysis showed how the DGE was used to support students’ mathematical communication and inquiry involved in the task enactment. First, students referred to diagrams on the screen when specifying certain figures or describing particular movements of the figures as they present their work or discuss with peers. Also, students used the drag feature to inquire about invariant properties of figures or particular examples. In particular, students switched their dragging strategies as they generated, specified, and tested conjectures using empirical evidence obtained from the responsive diagram of the DGEs. Further implications for researchers, educators, and task designers will be discussed. (Received September 16, 2019)