In this chapter, we offer a study of peer review in a digital learning environment. With a sample of 837 students enrolled in first-year composition at a public research university, our analysis focus on intrapersonal and interpersonal domains of the writing construct as they are enacted in the peer review process in terms of self-reflection and transaction. Our study is organized as a demonstration of the force of construct articulation, the usefulness of fairness as an integrative
measurement framework, and the affordances of research in digital ecologies. Based on findings from our National Science Foundation funded research, we conclude with considerations for future peer review research.