This study applies multi-level analysis to student reports of effective teacher-student interactions in 50 upper elementary school classrooms ($N = 594$ $4^{th}$ and $5^{th}$ grade students). Observational studies suggest that teacher-student interactions fall into three domains: Emotional Support, Classroom Organization, and Instructional Support. Results of multi-level confirmatory factor analyses indicated that a three-factor model fit between- and within-classroom variability in students’ reports reasonably well. Multi-level regressions provide some evidence of criterion validity, with student reports at the classroom-level related to parallel observations. Both classroom- and student-level student report data were associated with students’ reading proficiency and disciplinary referrals. Findings are discussed in terms of implications for future research on student reports of classroom interactions and their practical utility in teacher evaluation and feedback systems.