While waves of educational reform have long been a part of the field’s landscape but especially since the 1966 Coleman Report, the challenge to increase student achievement continues to plague educators, especially principals. Research has shown that collaborative school cultures have a positive impact on student achievement and principals play an integral role in creating the conditions necessary for these cultures to thrive (Garity, 2001; Gruenert, 2005; Gruenert & Whitaker, 2015; Turan & Bektas, 2013). Those working in the field of educational leadership must understand, if a relationship exists between specific leadership practices, school culture, and student achievement because it will provide principals with valuable information that could potentially increase achievement levels. This study implemented correlational research methods in a quantitative design. This design was used to determine if, and to what extent, a relationship exists between principal leadership practices, school culture and student achievement. The findings suggest that there was no relationship between the leadership practices of principals and student achievement results; however, school culture does have a relationship at the elementary level.