

## **Abstract**

We prove that a linear  $q$ -difference equation of order  $n$  has a fundamental set of  $n$ -linearly independent solutions. A  $q$ -type Wronskian is derived for the  $n$ -th order case extending the results of Swarttouw–Meijer (1994) in the regular case. Fundamental systems of solutions are constructed for the  $n$ -th order linear  $q$ -difference equation with constant coefficients. A basic analog of the method of variation of parameters is established.