Abstract: Pattern generalization tasks are becoming more popular in classrooms. They have the potential to be engaging, student centered, and support a wide range of mathematical content and practices. Often though, instruction can bypass rich and essential conceptual understanding of the algebraic notation. Teachers may assume that students who are able to arrive at a correct expression have developed the rich understanding that undergirds this process. But algebraic notation, like any representation, is not transparent. Many scholars have documented students’ struggle to grasp these abstract symbols, highlighting various superficial understandings they develop. Drawing on data from my dissertation study, I identify and discuss five different categories of understandings that teachers can hold and instructional practices they can enact which support students to develop a robust understanding of algebraic notation.