Investigating Student Understanding of Double Slit Wave Interference vs. Multiple Slit Interference MITRA SHOJANIA FEIZABADI, Seton Hall University — This study concentrates on evaluating student understanding of the Youngs experiment. It includes not only the student’s line of reasoning, but also the ability to face challenges. It also provides an assessment of the ability to go through logical steps to expand student knowledge from the double slit experiment to the multiple slit experiment. This study is an attempt to build a productive lecture in order to better address the needs of students.