Duval County Public Schools (DCPS) proposes the **Using and Leveraging Technology to Reinvent Accessibility: Minecraft Mentor Edition (ULTRA:ME)** Program. **ULTRA:ME** is presented as an early-phase EIR project, addressing AP1: Demonstrates s Rationale, and AP2: Field-Initiated Innovations—STEM. The study will serve 280 total teachers and 4,760 K-5th grade students (at least 10% of whom are high-need ESE students). For this grant, we define high-need students to be those who have a disability, designated as Exceptional Student Education (ESE) and adhering to an individualized education plan (IEP) per district and state policy. The central purpose of the project is to develop and assess the effectiveness of the series to improve K-5 outcomes, with a particular focus on the intervention’s effects on ESE students. The program will include a professional development series so elementary science teachers can become experts in implementing the tool; coaching, professional learning communities (PLCs), and peer mentoring to reinforce instructional strategies and for fidelity; and lessons in Nature of Science topics taught via Minecraft for Education for K-5 students. **ULTRA:ME** will employ a rigorous cluster randomized controlled trial (RCT) meeting What Works Clearinghouse (WWC) Standards without Reservations. The expected outcomes are to 1) Increase social-emotional and academic outcomes of students with and without disabilities; 2) Increase teacher knowledge, efficacy, and practice in supporting ESE students; and 3) Refine an innovative, replicable, and cost-effective model for PD in Minecraft: Education Edition. Partners include a collaboration with University of North Florida (UNF), Florida State University (FSU), CIC Planning group, with support from a partnership with Microsoft, and led by an interdepartmental Technology/ESE/Science educational team from DCPS. In addition, local educational agencies will participate in dissemination activities.