Dr. Rebecca Callaway Arkansas Tech University Curriculum and Instruction College of Education rcallaway@atu.edu

Re.: Final Report for attending Serious Play Conference July 24-26, 2019, hosted by the University of Central Florida (UCF) in Orlando.

A. The project title: "Serious Play Conference"

B. **Project problem:**

Arkansas Department of Education requires all K-12 teachers in all content area to engage in discussions surrounding computer science and digital literacy to meet the Arkansas Computer Science Initiative as appropriate for their content area and age of students. ATU education majors are not required to take a computer science course, therefore they have no exposure to coding.

C. Project procedure

I attended the Serious Play Conference and participated in sessions on teaching techniques and applications of games designed to meet the needs of the preservice teachers regarding the Arkansas Computer Science Initiative.

D. **Summary of findings**

Starting in Fall 2019, Dr. Ibrahim and I are developing modules to address the Arkansas Computer Science Initiative standards to support critical thinking through the essential skills of computational thinking and algorithmic problem solving. These modules are embedded in the undergraduate required technology courses for preservice teachers. Additionally, these modules are included in educational technology foundation course required in the graduate programs in our department.

E. Conclusions and recommendations

Dr. Ibrahim and I are integrating computer science modules into our technology courses using gaming (used to teach coding for K-12 students) to meet the requirement of the Arkansas Computer Science Initiative. These modules will expose our preservice teachers to Computer Science concepts (coding) in the following courses: EDMD 3013, SEED 3702, MAT 5703, and EDMD 5033 (Over 125 students per semester). Thus, Tech education graduates will be better prepared to fully participate in the Arkansas Computer Science Initiative as a K-12 teacher.