Technology Cross Cutting Theme

The EPP technology standards and objectives align with the CAEP technology standards (Table: 7.1a). To provide rich technology experiences and enable candidates to develop their capabilities to design and facilitate digital learning, and learn about technology tools for P-6 students' learning, the EPP has obtained *laptops* for candidates to use if they need one. The EPP owns a *Portable Smartboard* for students' and faculty use. For video recording, EPP has *video cameras* for candidates use for videotaping lessons. There are computer labs equipped with latest technology for candidates to use. The EPP utilizes *Blackboard*, *Excel* and *Sharepoint*, *Crestron Airmedia*, SMARTHINKING college-wide tutoring platform, *Soft Chalk* and *Quality Matters* instructional technology to engage candidates in technological activities. Candidates use Digication ePortfolio platform to create a Professional Portfolio, and to submit their portfolio for edTPA. The EPP has decided to adapt *Chalk and Wire* program to support the assessment system.

Technology is used as an instructional tool in all courses, and candidates are required to infuse technology in coursework and research (Table: 7.1b). The EPP provides candidates with technology training to use technology tools within the content area; opportunities to create their own technologies through learning experiences (Table: 7.1bi-bii); place candidates in field experiences (Table: 7.1c-7.1cii). In all EPP courses, candidates receive varied experiences in the use of technology, in utilizing these technological platforms, candidates manage the technology challenges posed by edTPA. Candidates demonstrate technological proficiencies in creating interactive web-based and other electronic resources for the children they are teaching. According to the data, 99% candidates use Black Board (BB) for learning content, post assignments, check grades, use discussion board, send email and receive emails from the faculty concerning class activities. Smartboards are used by 99% candidates to access information, research, project presentation, and developing instructional materials. Candidates learn excel program to organize data of their students' grades, grade point average (to be viewed by parents), track their students' performance and identify their students' areas of strength and weaknesses. EPP requires all students to prepare an ePortfolio.

All candidates are required to complete EDUC 350, Computers in Education, and its co-requisite early field experience EDUC 504, Technology in the Classroom in which candidates teach students through technology- based instruction. In EDUC 350, candidates learn to use technology to support student learning by creating a WebQuest. The 2015-2017 data demonstrates that out of 148 candidates who represent evidence for this assessment, 80 % candidates have achieved a competent level in CAEP standard 1, only 9 % candidates are at emergent level and 11% candidates did not meet ACEI and CAEP

standards. This data demonstrates that most candidates have technology content knowledge, pedagogical content knowledge (Table 7.1d), knowledge of web-based teaching strategies, they are responsive to diversity, can use technology as a teaching tool, and can develop technology-based curriculum. Through field-based experience at partner-schools, candidates apply their technology skills, develop technology-based projects to implement in diverse and inclusive classrooms. EDUC 350, 355, and 457 are Hybrid courses that are delivered through Blackboard (Table: 7.1e). Candidates use various technology tools to teach their lessons (Tables 7.1g; 7.1n). Candidates record their lessons, transfer videos from one device to the next, and edit videos to demonstrate specific aspects of their teaching (Table 7.1l).

In Clinical Practice (CP), all candidates must infuse technology in their lessons to engage students and teach their content. They are measured by technology component of CP rubric (Tables: 7.1h-7.1l). Candidates are required to videotape a lesson that they teach and show that video to their supervisor and do the video analysis of that video. Candidates complete a technology project that includes an inventory of technology resources and support at their clinical sites, integration and application of technology in a lesson, and the development of a reflective essay on their use of technology (EPP Standards 1, 4, 5, 7, 8; CAEP Standards 1,2,3; ISTE 1; 2). The data comes from EDUC 350 Computers in education technology course assessment, survey instruments, course assignments and rubrics, and CP assessment technology rubric (Tables: 7.11 – 7.1m). The data shows most candidates consistently performed at the exemplary level on EPP technology objectives when using technology in the coursework and in field (Table: 7.1n).

The CP data demonstrates that in Fall 2015, most candidates performed at the Emerging level while in spring 2017 most candidates fell in the Competent level in their use of technology (Tables:7.1c – 7.17.1d, 7.1i-7.1m). This data suggests that during the time faculty increased focus on using technology in their teacher preparation courses, candidates also increased their use of technology. The EDUC 317 is a field-based course in which for the second half of semester candidates stay in the partner site for the class time the host sites provide technology needs of the course. One section of EDUC 350 Computers is Education Course runs as field-based course in which for the second half of semester candidates stay in the partner school for the class time and work with the computer teacher and the instructor in computer room and get immersed in technology rich teaching and learning environment. Across all courses, faculty introduced and used a range of digital tools and technologies to support candidate learning (Table 7.1f).