Chapter 15

Crab-Walking in the Crosswalk: A Standards and Competency Matrix Using ISTE Educator Standards With Teacher Educator Technology Competencies

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ABSTRACT

Faculty integration of the technology standards and competencies remain a concern in higher education, especially in the movement toward competency-based education and portfolio development. The “CRABwalk within the Crosswalk” occurs as both ISTE educator standards and TETC competencies are collaboratively reviewed and worked. This protocol is designed to help align a team’s multiple standards and competencies within one collaborative assessment tool. It provides a cognitive tool to facilitate partnership collaboration that can result in greater individual and team growth and development. This chapter provides a literature review of K-12 teacher education and university faculty perceptions as a cultural models base to the presented Crosswalk to Rubric Alignment (CRABwalk) protocol. Professional standard or competency needs are of focus and therefore meet the needs of each educator group: preservice, inservice, and teacher educator.

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INTRODUCTION

One way to help faculty build self-efficacy through experiences with technology, application, and support of the use of technology is through communities of inquiry. The professional teacher education team of teacher candidate, cooperating teacher, and site professor may find the ISTE Ed and TETC Crosswalk Dance helpful in collaboratively planning and designing learning environments while addressing their individual professional development needs. Such processes can greatly facilitate and support such developmental initiatives as competency-based education.

SUPPORTIVE THEORETICAL FRAMES

The most supportive theoretical frameworks for the developed competency-based crosswalk were deemed to be those of situated learning and cultural models. More specifically, situated learning will be focused upon communities of inquiry. K12 teacher and university faculty perceptions will also be reviewed. K12 teacher perceptions of a) value of technology, b) teacher access, c) teacher efficacy, and d) training and support will be reviewed. University faculty perceptions related to technology use include self-efficacy, technical support, and generational factors.

Theoretical Frame of Situated Learning: Communities of Inquiry

Faculty integration of the technology standards and competencies remain a concern in higher education. Teachers experience a variety of challenges that interfere in their developing positive perceptions, or cultural models, related to technology integration. For this reason, one way to help faculty build self-efficacy through experiences with technology, application, and support of the use of technology is through communities of inquiry.

One strand of inquiry study (Kozan, 2016) was “to investigate the predictive validity of teaching presence, cognitive presence, and social presence from a cognitive load perspective” (p.11). It was found that a statistically significant and predictable connection exists between the presences and intrinsic, extraneous, and total cognitive load. Specifically, cognitive presence was the best predictor for intrinsic load, and teaching presence was the best predictor for extraneous and total loads. While social presence does not directly predict cognitive loads, it has a strong connection with perceived learning satisfaction. This finding also impacts faculty, their students, and cooperating K-12 teachers working as a professional team for individual and collective professional development needs. Co-teaching and cognitive presences are needed and lead to greater social presence satisfaction within professional development teams.

Communities of inquiry is a concept derived from literature on situated learning. Situated learning (Lave & Wenger, 1991) refers to learning that occurs through interaction and collaboration within groups who share a common goal or purpose. Each participant engages socio-culturally with shared goals to develop a set of needed skills. Learning in this sense is seen as connected to all aspects of the social activity related to the skills being learned. For the purposes of this paper, learning to integrate technology in the teacher education classroom would involve active engagement with technology, social interactions with colleagues and/or students, and learning and teaching occurring between both the perceived expert and learner. Research on faculty professional learning has shown the preference for feedback from a variety of sources, including colleagues and students, a supportive peer network (Saroyan, 2015).
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