



TPACK Newsletter, Issue #36: March 2018

Special Spring 2018 Conference Issue

Below please find a list of TPACK-related papers/sessions that will be presented at the SITE conference in March in Washington, D.C.; at the AERA annual meeting in April in New York; and at the ISTE conference in June in Chicago. (That's 46 TPACK-focused conference sessions in just 3 months!)

Please note that we have included only those presentations that use TPCK/TPACK *extensively* as either a theoretical framework and/or a focus for investigation throughout the cited conference papers/presentations. The construct is used so extensively in educational technology research and professional learning that including all presentations that mention TPCK/TPACK, but do not focus upon it – even at just these three national/international conferences – would make this newsletter unreasonably long.

If you are not sure what TPACK is, please surf over to <http://www.tpack.org/> to find out more.

Gratuitous Quote About Conferences

"For me, conferences are like little mental vacations: a chance to go visit an interesting place for a couple of days, and come back rested and refreshed with new ideas and perspectives."

-Erin McKean

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1. SITE 2018 TPACK-Focused Presentations

Adams, S., & Rojas, F. (2018, March). *High school teachers' self-assessment of their TPACK after graduate coursework: A mixed methods evaluation*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52120/>

Abstract: “This paper describes a study of high school teachers’ Technological, Pedagogical and Content Knowledge (TPACK) following coursework in educational technology and project-based learning. The coursework was part of a novel pathway of a Master’s program in Curriculum and Instruction to prepare teachers to set academic learning in the context of real-world situations relevant to the workplace. Eighteen teachers completed the instructional activities, and complete data sets and informed consent were obtained from fifteen. The study used a quantitative method, a survey of TPACK (at the beginning and end of instruction) together with a qualitative method, a Graphical Analysis of TPACK Instrument (at the end of instruction). The TPACK survey showed statistically significant changes in most subscales, including large effect sizes on scales related to Technological Pedagogical Knowledge and TPACK. The complementary GATI instrument provided self-reflections extending the surveys. A comparison of the two methodologies illuminates strengths and limitations of each.”

Date/Time: Friday, March 30 11:30-11:50 AM, Edison C

Casola, S., Di Blas, N., & Paolini, P. (2018, March). *Knowledge flows as a way to understand learning processes*. Poster presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/51928/>

Abstract: “This paper proposes an innovative method for analyzing learning processes, involving groups of students. Moving from TPACK and its evolution, the method (named DDK-flows, Distributed & Dynamic Knowledge-flows) proposes the analysis of flows of knowledge that occur during an educational experience from one actor to another actor, as the cornerstone. As shown in this paper, the method allows two types of analysis: understanding how the learning process worked overall (ie, “on average”), and how individual learning processes diverged from the “average” learning process. The paper supports the claims with data taken from a real-life experience.”

Date/Time: Wednesday, March 28 6:15 PM-7:30 PM, Edison Ballroom D

Christodoulou, A. (2018, March). *Effects of learning with e-TPCK on pre-service teachers' technological pedagogical content knowledge*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52689/>

Abstract: “The authors herein discuss the design of e-TPCK, a self-paced adaptive electronic learning environment that was integrated in a second-year educational technology course to engage pre-service teachers’ in rich learning experiences in order to develop their TPCK in a personalized way. The system deploys a technological solution that promotes teachers’ ongoing TPCK development by engaging them in rich and valuable personalized learning experiences through the use of technology-infused design scenarios, while taking at the same time into account teachers’ diverse needs, information processing constraints, and preferences. Results from an experimental research design study revealed statistically significant differences between the control group and the experimental group in favor of the experimental group, signifying that students in the experimental group who learned with e-TPCK outperformed the students in the control group in terms of developing TPCK competencies.”

Date/Time: Thursday, March 29 11:50 - 12:10 PM, Whitney

Clausen, J., Boltz, P., & Dubois, J. (2018, March). *Taking the “EdTec tour of what’s possible:” Engaging beginning teacher education candidates and faculty in experiences to challenge concepts of technology use in the classroom through Breakout EDU.* Roundtable presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52113/>

Abstract: “Extending the scope of integrative educational technology application within teacher preparation programs is more than a matter of isolated educational technology coursework. In order to create opportunities for teacher candidates and faculty to reflect on and develop technology use within their own teaching practice, current pedagogical models and technologies are applied in a midsize teacher preparation program Breakout EDU workshops informed by the TPACK framework in a space equipped with multiple emerging technologies creates experiences that enable teacher candidates as well as faculty to creatively build new technology into their own teaching. As a result, the surrounding cultural intent is to broadly infuse meaningful use of educational technologies into multiple teacher practices.”

Date/Time: Wednesday, March 28 10:15 AM-11:15 AM, Edison Ballroom D

Ekmekci, A., Parr, R., & Fisher, A. (2018, March). *Results from Rice University’s WeTeach CS: A computer science teaching collaborative serving teachers with different needs through variety of pathways.* Virtual paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52016/>

Abstract: “Computer science (CS) is one of the school subjects that gained a great attention recently, yet it faces challenges such as teacher shortages and huge variability in teachers’ professional preparation. These challenges make PD efforts even more critical to develop in-service teachers to effectively teach CS topics. This paper presents results from Rice University School Mathematics Project’s We Teach CS program, a CS teaching collaborative that provided 20 CS teachers with an innovative professional development. The innovation comes from the four different pathways to serve diverse needs of the teachers in the best way possible and

each pathway having several components spread out to several months rather than being one-time, one-shot. The paper will describe each pathway in detail to set an example for other professional development programs. The overarching goal of the program was to develop the self-efficacy and pedagogical content knowledge, which as research shows are integral to successful CS teaching. This study focused on teachers' self-efficacy for CS, CS teaching, and computational thinking, and technological, pedagogical, and content knowledge (TPACK). Data collection means include pre- and post-surveys, teacher reflections, and teach interviews. The results are promising in that the collaborative improved teachers in all these areas. The paper also describes the different pathways in detail to provide an example of a successful CS teaching collaborative."

Date/Time: All conference days (online)

Ervin-Kassab, L. (2018, March). *From exam to integration: Planning for technological pedagogical content knowledge (TPACK) in a graduate teacher education program*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52026/>

Abstract: "In 2016 and 2017, California revised both its Teacher Performance Expectations (TPEs) and the teacher performance assessment. In 2017, the International Society for Technology in Education (ISTE) revised its educator standards. This created a need for a TK-12 teacher preparation program to address preparing pre-service teachers to use educational technology. Institutional post-program survey responses indicate graduates feel unprepared to use educational technology. Initially, the researcher was to revise a technology exam to align with the new standards. The test was found to be an untenable solution. Instead, the program decided to use an online certification option to develop pre-service teacher technology knowledge (TK) of the standards at an introductory level. The program is developing a plan for integrating technology throughout its scope and sequence using a TPACK (Koehler & Mishra, 2009) approach for depth. This brief paper describes the work-in-progress using the SQD model proposed by Tondeur, et al. (2012)."

Date/Time: Thursday, March 29 3:20 PM-3:40 PM, Wright

Figg, C., Rowsell, J., Welbourn, S., & Pelchat, K. (2018, March). *Using informal learning of makerspaces to enhance technological pedagogical and content knowledge (TPACK)*. Poster presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52698/>

Abstract: "Makerspaces are emerging as promising experiential learning environments that support the development of future ready skills, including collaboration, critical thinking, creativity and innovation, communication, and problem solving. This poster presentation shares the findings from a pilot study that explored what knowledge participants perceived they gained from participating in a makerspace experience. Preliminary findings suggest that participants perceived that they had 1) gained knowledge about how to facilitate maker

experiences for their students, 2) gained the technical expertise and confidence to use the technologies explored during the makerspace in their own teaching, 3) were able to make curriculum connections with the activities explored in the makerspace, and 4) were able to identify the types of thinking skills being used in different centers. These findings suggest that TPACK knowledge of the participants was enhanced through interacting with tinkering and exploring within the informal learning environments of makerspaces.”

Date/Time: Wednesday, March 28 6:15 PM-7:30 PM, Edison Ballroom D

Harris, J., & Phillips, M. (2018, March). *If there's TPACK, is there technological pedagogical reasoning and action?* Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <http://new.academicexperts.org/conf/site/2018/papers/51537/>

Abstract: “The notion of pedagogical content knowledge (PCK) was modified by multiple authors to become technological pedagogical content knowledge (TPCK or TPACK), spawning much active and dynamic scholarship since 2001. Currently, many researchers see TPCK/TPACK as the knowledge that teachers need to integrate technologies effectively into learning and teaching. Shulman’s PCK, however, was just one element in a much larger conceptualization of a knowledge base for educators, and that full range of knowledge was posited as being used by teachers in recursive processes of pedagogical reasoning and action. This begs the question: if there is TPCK/TPACK, which is rooted in PCK, as many studies have suggested, is there also technological pedagogical reasoning and action (TPR&A)? If so, what are its distinguishing characteristics? If not, why would TPCK not be mirrored in TPR&A? These questions are addressed in the following multivocal literature review.”

Date/Time: Thursday, March 29th 1:45 PM-2:15 PM, Bell

Harris, L., Yearta, L., & Chapman, H. (2018, March). *The intersection of the UDL and TPACK frameworks: An investigation into teacher candidates' use of technology during internship.* Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/51809/>

Abstract: “Teacher candidates enrolled at a four-year institution in the Southeastern part of the United States were enrolled in a technology-integration course with a field-based component. These candidates learned how to use the Universal Design for Learning (UDL) framework to inform instructional decisions and were given opportunities to reflect upon instructional choices made to prompt pedagogical growth. After finishing the technology-integration course, teacher candidates enrolled in a full-time Internship. Upon completion of the Internship, teacher candidates were interviewed and it was determined that participation in the technology-integration course with the field-based component influenced teacher candidates’ ability to use the UDL framework to make instructional decisions, based on p-12 students’ needs, in the Internship.”

Date/Time: Thursday, March 29 1:45 PM-2:15 PM, Edison C

Hicks, S. (2018, March). *TPACK development via action research*. Poster presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52471/>

Abstract: “With efforts to integrate technology into one's teaching practices, a teacher constructs Technological, Pedagogical Content Knowledge (TPACK). Furthermore, when doing so as part of an action research, teachers more effectively develop TPACK as they critically examine and determine the strengths and weaknesses of their efforts via data collection, analysis, and reflection. In working with a secondary English teacher, Mary, who was working on her master's degree action research capstone project, I witnessed professional expertise change. Mary brainstormed and tried out a couple of new instructional strategies that included the use of cell phones and laptops in new ways. Mary constructed knowledge of instructional strategies and assessment with technology that supports student achievement in her English classroom and engages her students more meaningful in the learning process. With this knowledge, Mary is empowered and equipped to be a teacher leader where there is a school initiative to increase meaningful use of technology.”

Date/Time: Wednesday, March 28 6:15 PM-7:30 PM, Edison Ballroom D

Jaramillo Cherez, N. (2018, March). *Cultivating instructors' reflective practices: “The reality of what I experienced is I wish I had thought about these things, but I didn't, so live and learn.”* Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/51822/>

Abstract: “This case study documented the critical reflective practice of an instructor in a higher education context. This reflective practice was characterized by critical analysis that examined her teaching and learning approaches. In particular, the reflections unveiled her ways of seeing the teaching and learning process, learning through sharing experiences, developing her Technological Pedagogical Content Knowledge (TPACK), and nurturing her professional growth. Cultivating this reflective practice was possible through guided mentoring and collaboration with an instructional design team, during which the instructor was able to engage in in-depth critical reflective practices. Implications for cultivating reflective practice are discussed in light of enhancing our understanding of the complexities that teaching and learning processes encompass. Recommendations for cultivating critical reflection through mentoring and collaborating will also be shared.”

Date/Time: Thursday, March 29 3:00-3:20 PM, Wright

Jin, Y., & Schmidt-Crawford, D. (2018, March). *Impact of prior knowledge, course design, and technology preparation on pre-service teachers' TPACK development in a required educational technology course*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52047/>

Abstract: “Prior knowledge, course design, and technology preparation play essential roles in pre-service teachers' TPACK development In this paper, the researchers investigated the impact of prior knowledge, course design, and technology preparation on pre-service teachers' post-TPACK and TPACK development scores in a required educational technology course Statistical analyses, two-way multivariate analysis of variance (MANOVA), were run The researchers found that all three variables affected pre-service teachers' post-TPACK and TPACK development scores In particular, cluster 2 pre-service teachers who reported higher pre-TPACK scores had higher post-TPACK scores The second course design, which integrated content-specific strategies guided by TPACK framework, was more effective for developing pre-service teachers' TPACK in both clusters However, although cluster 1 pre-service teachers increased more in their TPACK development scores, they could not catch up with those in cluster 2 in both course designs The results of this paper provided empirical data on the impact of prior knowledge, course design, and technology integration on pre-service teachers' TPACK development Future directions for research and practical implications were discussed.”

Date/Time: Friday, March 30 10:15-10:45 AM, Edison G

Kaplon-Schillis, A., & Lyublinskaya, I. (2018, March). *Unpacking performance indicators in the TPACK levels rubric to examine differences in the levels of TPACK*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/51812/>

Abstract: “This paper presents the case study that focuses on examining the differences between levels of Technological Pedagogical Content Knowledge (TPACK) of preservice special education elementary school teachers taking the graduate level course Integrating Technology in Mathematics and Science Instruction in Special Education and Inclusive Classrooms in a New York City public university. The purpose of this study was to analyze how to use the TPACK Levels Rubric (Lyublinskaya & Tournaki, 2012) to measure pre-service and in-service teachers' TPACK level based on various artifacts. The case study focused on a single pre-service teacher's lesson plan representing average TPACK level for the same population. The authors examined criteria of the TPACK Levels Rubric to understand the differences in levels of TPACK for each component of the TPACK Levels Rubric, developed examples of how the scored lesson plan would look like if it were one and two TPACK levels below or above the actual level to support the scoring procedure and to create guidelines for educators using this tool in assessing pre-service and in-service teachers' TPACK level. The ongoing analysis of the rubric that focuses on unpacking criteria of the TPACK Levels Rubric will lead to the revision of the original rubric.”

Date/Time: Wednesday, March 28 4:45 PM-5:15 PM, Edison E

Karakaya, O. (2018, March). *Exploring preservice teachers' TPACK in an educational technology course*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52763/>

Abstract: “This study explores the relationship between preservice teachers’ self-reported assessment of technology knowledge and their actual technology integration into lesson plans. Students’ responses to the TPACK survey (Schmidt, Baran, Thompson, Mishra, Koehler, & Shin, 2009) and lesson plan rubric scores (Harris, Grandgenett & Hofer, 2010) were collected in this study. Pearson correlation was conducted to analyze the relationship between students’ TPACK and their demonstrations of TPACK via lesson plans while descriptive statistics and content analysis were used to analyze to what extent preservice teachers incorporated TPACK into their lesson plans. The results indicate that there appears to be a mismatch between knowledge (theory) and practice of preservice teachers with respect their TPACK. That is, self-assessment of preservice teachers’ technology knowledge was found higher than their actual technology integration into lesson plans. Content analysis of the lesson plans revealed that the extent and use of digital technologies changed depending on the curriculum goals and instructional strategies.”

Date/Time: Friday, March 30 10:45 AM-11:00 AM, Whitney

Macrides, E., & Angeli, C. (2018, March). *Domain-specific aspects of technological pedagogical content knowledge: The importance of affect in technology-enhanced music teaching.*

Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from

<https://www.academicexperts.org/conf/site/2018/papers/52513/>

Abstract: “The present study addresses the lack of a theoretical framework for the integration of technology in music teaching and learning, and explores, within the framework of Technological Pedagogical Content Knowledge the importance of affect in instructional design. The authors propose a set of music-specific design principles based on the TPCK framework while identifying the interrelations among musical content, emotions, and technology. The design guidelines were tested in an empirical investigation and statistically significant differences were found between the control and the experimental groups in favor of the experimental group. Further investigation is necessary to test the effectiveness of the proposed design principles. Including affect in the design process is a complicated and mostly uncharted area, and, thus, further research toward this direction is fully justified. Through the inclusion of affect in the learning design, the research has practical and theoretical significance as it addresses a gap in both the TPCK/ TPACK and music education literature.”

Date/Time: Tuesday, March 27 10:45 AM-11:15 AM, Edison A

Musgrove, A., Powers, J., Gonzalez-DeHass, A., & Willems, P. (2018, March). *Developing and modeling pedagogy with interactive video.* Roundtable presented at the Society for

Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from

<https://www.academicexperts.org/conf/site/2018/papers/51804/>

Abstract: “Interactive video is a versatile, easy to use instructional tool that helps teacher educators engage students in active learning and conduct formative assessments This paper describes how faculty in the Department of Teaching and Learning at a large southeastern

university use web-based interactive video tools in graduate and undergraduate courses to help students develop TPACK by creating lessons and discussions with active learning elements An example of how faculty utilize interactive video in educational psychology is provided Research literature and the pedagogical principles for implementing interactive video into each course are discussed The paper highlights how this tool may be adapted to various forms of instruction to meet the objectives all three different education courses.”

Date/Time: Thursday, March 29 4:15 PM-5:15 PM, Edison D

Phillips, M., & Harris, J. (2018, March). *PCK and TPCK/TPACK: More than etiology*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52638/>

Abstract: “In this review of multiple reinterpretations of TPCK/TPACK that have emerged over time, we trace the construct’s roots not only to PCK, but more importantly to Shulman’s (1987) knowledge base for teaching, within which PCK was originally situated. We suggest that TPACK is a special case of PCK which sits within the considerably broader knowledge base for teaching, basing this assertion upon Cox’s (2008) explanation of the differences between teachers’ PCK and TPACK. Following Cox, we argue that TPACK references only the specific nature of a teacher’s PCK when unfamiliar digital tools are considered and implemented for educational purposes. We recommend that TPACK researchers distinguish among the different categories of teachers’ knowledge, reasoning, and action more clearly, bounding TPACK more narrowly in ways that mirror how Shulman delineated PCK with reference to the six other components comprising his knowledge base for teaching.”

Date/Time: Thursday, March 29th 2:15 PM-2:45 PM, Bell

Poyo, S. (2018, March). *Transforming teacher preparation: Assessing digital learners’ needs for instruction in dual Learning environments*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52059/>

Abstract: “As traditional classrooms have expanded to include virtual learning environments, teachers’ acquisition of specific knowledge and skills for effective use of technology has become paramount This research examines pre-service teachers’ needs relevant to integrating technology in an online learning environment and is a first step toward acknowledging the responsibility teacher preparation programs have in the formation of educators equipped to instruct in dual learning environments, providing opportunities to become fluent in the technological pedagogical content knowledge (TPACK) vital for online and traditional face-to-face instruction The purpose of this study was to determine if active engagement with content of an online instruction module would affect the attitudes, knowledge and skills, and instructional centeredness of pre-service teachers’ towards technology integration in an online learning environment A mixed-methods concurrent triangulation design procedure was conducted to evaluate the effect of engagement with the content of the online instruction

module for all three domains Participants made statistically significant gains upon completion of the intervention The implementation of an intervention such as this online instruction module supports teacher preparation programs in identifying strengths and weaknesses of their pre-service teachers, providing valuable information necessary to guide program goals.”

Date/Time: Tuesday, March 27 2:15-2:45 PM, Banneker

Poyo, S., Archambault, L., Linton, J., McVey, M. K., Kiekel, J., Schouweiler, D., & Kennedy, K. (2018, March). *What’s happening in blended and online learning: Innovative practice and lessons learned*. Panel conducted at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Retrieved from <https://www.academicexperts.org/conf/site/2018/papers/51877/>

Abstract: “This panel brings kindred spirits from the field of education to explore and discuss innovative practices targeting both blended and online learning The increase of blended and online courses in K-12 and higher education requires the addition of pre-service and licensed teachers who are amenable and equipped to instruct in a rapidly transforming environment However, there is evidence of a lack of response, particularly in teacher preparation programs, to the changes in current educational practices and policies in online education and the need for online instructors (Kennedy and Archambault, 2012, 2016; Gemin, Ryan, Vashaw, and Watson, 2015; Compton and Davis, 2010; NEA, nd) Experts in the field will examine new and innovative practices implemented to support the development of technological pedagogical content knowledge (TPACK) necessary for successful blended and online learning.”

Date/Time: Wednesday, March 28 1:45 PM-2:45 PM, Edison B

Pugh, K. L., Liu, L., Wang, P. (2018, March). *Technology integration in a K-12 frontier district*. Roundtable presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52029/>

Abstract: “Recently, a boom in tech industries locating within a western state have led to the laying of hundreds of miles of fiber optic cable from north to south within the state’s borders. The potential impact this will have on education for the more than 50,000 K-12 students living in rural and frontier communities along that route could be tremendous. A question raised is: are the districts administrators and instructional staff prepared to integrate technology into their curriculum? To facility a greater understanding of this preparedness, a technological, pedagogical content knowledge (TPACK) survey of the administrative and instructional staff will be completed. Analysis of the results will provide the base data to create a site-specific, individualized professional development program that will focus on use of technology and active integration in both core and elective courses to enhance student engagement, retention, and academic success.”

Date/Time: Thursday, March 29 1:45 PM-2:45 PM, Edison Ballroom D

Smits, A., & van Velze, L. (2018, March). *TPACK development in a graduate course for practicing teachers*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52510/>

Abstract: “Our graduate course ‘learning with ICT’ targets the development of TPACK through conceptual understanding, pedagogical reasoning and educational design. In this study we qualitatively analyzed the outcomes of the course. The main research questions are: What conceptual understanding, pedagogical reasoning and TPACK enactment are visible in students’ written and video assignments after the course? And how are these related? Qualitative analyses of conceptual understanding, pedagogical reasoning and TPACK enactment was performed in the software package QDA miner with the help of a categorical dictionary and codebooks derived from the content of the course. The results showed that students differed greatly in their conceptual understanding and in their pedagogical reasoning. However, most students designed and enacted a lesson that showed TPACK enactment. This may mean that in some students TPACK enactment may merely be performance driven. Students with a strong conceptual understanding and pedagogical reasoning, may be more likely to show transfer of TPACK enactment to future teaching situations.”

Date/Time: Thursday, March 29 3:40 – 4:00 PM, Wright

Tomayko, M. (2018, Spring). *Pre-service teachers self-assessing TPACK using a visual quantitative mode*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/52544/>

Abstract: “In this study, pre-service teachers (PSTs) in an instructional technology course used a visual quantitative model to track their growth in the seven knowledge domains associated with Technological Pedagogical Content Knowledge (TPACK). Written reflections by the PSTs provided insights into self-reported ratings that improved, stayed constant, or declined. Preliminary findings indicate that PSTs’ growth in TPACK was often attributed to the applied and practical nature of course activities as well as the PSTs’ increased confidence with using technology. PSTs were also able to describe actionable next steps to further grow their TPACK in areas that were stagnant. While few PSTs reported areas where knowledge declined, it is speculated that this was a result of PSTs initial overestimate of their knowledge.”

Date/Time: Thursday, March 29 11:30-11:50 AM, Whitney

Valtonen, T., Kukkonen, J., Sointu, E., Pontinen, S., Stehlik, T., Naykki, P., ... Makitalo-Siegl, K. (2018, March). *Development in pre-service teachers’ readiness to use ICT in education – longitudinal perspectives*. Paper presented at the Society for Information Technology and Teacher Education 29th International Conference, Washington, D.C. Abstract retrieved from <https://www.academicexperts.org/conf/site/2018/papers/51921/>

Abstract: “This study focuses on pre-service teachers’ readiness and willingness to use Information and Communication Technologies (ICT) in education. The study was conducted

using the Theory of Planned Behavior (TPB) focusing on attitudes, subjective norms, self-efficacy and behavioral intentions related to ICT in education. This paper is a longitudinal study; data were collected in three measurement points during 2014, 2015 and 2016 at three Finnish universities. Results indicate that pre-service teachers' assessments of each TPB areas rise between the first and second measurement, that between the second and third measurements the only statistically significant gain was for self-efficacy, and with other TPB areas the change was minor or even negative. Results also indicate that the biggest differences among respondents was in self-efficacy."

Date/Time: Thursday, March 29 4:15-4:45 PM, Edison B

2. AERA 2018 TPACK-Focused Presentations

Bonafini, F. C., & Lee, Y. (2018, April). *Characterizing prospective secondary mathematics teachers' experience of creating video lessons using iPad*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “Teacher educators are often pressed to create experiences for future teachers to engage in the practice of teaching mathematics with technology. In this paper, we describe how preservice teachers in a methods class incorporated their knowledge of technology, mathematics, and pedagogy in a project of creating video lessons using an app called ExplainEverything on iPad. We characterize their experiences using the TPACK framework (Mishra & Koehler, 2006). Results from qualitative analysis suggest participants demonstrated effective use of technology, pedagogical techniques, and mathematical representations using technology. Implications for practice include a recommendation to implement a cycle of learning in which preservice teachers can refine their pedagogical strategies, the rigor in their mathematics, and their use of mathematical action technology.”

Date/Time: Tue, April 17, 8:15 to 9:45 AM, Sheraton New York Times Square, Second Floor, Empire Ballroom East

Cheng, S.-L., & Xie, K. (2018, April). *Teacher demographic characteristics, value beliefs, and technological pedagogical content knowledge (TPACK) perceptions*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “The purpose of this study is to examine the relations among teacher demographic characteristics, value beliefs, and TPACK perceptions. 109 in-service teachers from the state of Ohio participated in this study. Our findings reveal that the relations of TPACK perceptions with demographic characteristics and value beliefs replicate those found in other research studies. Value beliefs, technology use, gender, and years of teaching significantly predict TPACK perceptions outside the context of intervention. In addition, value beliefs moderate the relations of TPACK perceptions with gender, age, and technology use. When the effects of demographic characteristics and value beliefs on TPACK perceptions are investigated in the context of intervention, teaching level and value beliefs are the only significant predictors of end-of-the-program TPACK perceptions.”

Date/Time: Sat, April 14, 4:05 to 5:35 PM, New York Marriott Marquis, Seventh Floor, Chelsea/Gotham Room

Dickenson, P. A., & Sistek-Chandler, C. M. (2018, April). *Investigating the motives, strategies, and tensions of instructional technology coaches: How coaches influence teachers' technological, pedagogical, and content knowledge*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “The role of Instructional coaches in technology for K12 schools has the potential to significantly impact teachers' efficacy and use of technology in the classroom. This qualitative study was designed to explore how contextual factors influence instructional coaches' ability to

shape teachers' development of technological, pedagogical and content knowledge and practice. This multiple case study examines the intentions, strategies and tensions of Instructional Coaches who support and provide professional development for inservice K-12 teachers. Cross-case analysis suggest context can shape the coaches' ability to purposefully shape teachers' TPACK. Although the majority of coaches spend time helping teachers integrate technology in their classroom, district mandates, expectations, and teachers' efficacy were one of many barriers to technology use."

Date/Time: Tue, April 17, 12:25 to 1:55 PM, New York Hilton Midtown, Third Floor, Americas Hall 1-2 - Exhibit Hall

Fraga, L. M., Guzman-Foster, S. L., Herbers, S., & Prior, L. A. (2018, April). *Using consultative support to assist faculty in higher education in the integration of technology*. Poster presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: "This yearlong pilot qualitative study determines if providing technology professional development with consultative support to university faculty increases the integration of technology, mobile learning opportunities and their TPACK. This study used a modified TPACK survey, interviews, syllabi and other documents from two faculty case study participants that attended a series of professional development sessions over the course of a year and also received consultative support. Preliminary results indicated the two case study participants share some of the same factors in determining their use of mobile devices for learning in higher education."

Date/Time: Sun, April 15, 10:35am to 12:05 PM, New York Hilton Midtown, Third Floor, Americas Hall 1-2 - Exhibit Hall

Hall, J. A., & Lei, J. (2018, April). *Applying the first principles of instruction in flipped and face-to-face approaches: A mixed-methods comparison*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: "Developing teachers who can effectively integrate technology is critical for addressing the needs of today's students and the changes wrought by rapidly emerging learning environments. This study compared the impact of flipped and face-to-face course versions on preservice teachers' technology integration knowledge. Using an embedded mixed methods design, preservice teachers' self-perceptions and application of TPACK were measured via a pre- and post- course survey and lesson plans, prompted reflections, and semi-structured interviews. The results revealed that preservice teachers significantly improved their knowledge of how to use various technologies with content specific instructional methods. These findings demonstrate the potential of this instructional design model in this context and lay the groundwork for replication with alternative instructional approaches."

Date/Time: Mon, April 16, 4:05 to 5:35 PM, Sheraton New York Times Square, Second Floor, Empire Ballroom East

Hughes, J. E., Ko, Y, & Lim, M. (2018, April). *A methodological examination of the technological, pedagogical, and content knowledge conceptual framework in qualitative research: A review of research in teaching and teacher education*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “This review of research examined how researchers defined and employed the Technological Pedagogical and Content Knowledge (TPACK) knowledge categories within qualitative research studies set within teaching and teacher education. The review examined (through a qualitative research process) how definitions and data examples were coded using the TPACK conceptual framework and its knowledge sub-types. This research revealed researchers are using incomplete or completely different definitions of TPACK knowledge areas, and knowledge sub-types are not equally represented within definitions and data examples. The review built a TPACK qualitative codebook that can support more reliable, valid, generalizable, and trustworthy TPACK-related research and provides practice-based examples that may assist in teaching TPACK to teachers.”

Date/Time: Fri, April 13, 12:00 to 1:30 PM, New York Marriott Marquis, Fifth Floor, Westside Ballroom Salon 4

Rust, J. (2018, April). *Liberal arts meets digital tools: Faculty perspectives on teaching, learning, and technology*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “Through semi-structured interviews with sixteen faculty members representing a variety of experience levels and departments, this piece illuminates faculty theories and ideas about digital pedagogy through the conceptual lens of TPACK (Mishra & Koehler, 2006), which delineates the overlapping considerations teachers in designing learning through technological knowledge, pedagogical knowledge, content knowledge. Findings reveal widespread similarities in attitudes toward teaching and learning across all different departments and indicate that, while faculty members had a range of content knowledge, pedagogical knowledge, and technological knowledge inferences, many faculty discussed tensions located at the nexus of technological knowledge, content knowledge, and pedagogical knowledge.”

Date/Time: Mon, April 16, 2:15 to 3:45pm, New York Marriott Marquis, Fourth Floor, Wilder

Soodjinda, D. (2018, April). *The TPA game-changer: Pushing for equity, inclusion, and educational technology via teacher performance assessment*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “In 2016, a state credentialing agency adopted a new set of Teacher Performance Expectations (TPEs) that highlights: A) an in-depth usage of technology to enhance instruction; B) the impact of K-12 students’ assets as “funds of knowledge” that can be used as a resource for instruction. In order to address the new TPEs the state agency was tasked with redeveloping their Teacher Performance Assessment (TPA) with a goal that the new assessment drive teacher preparation programs to refocus their curriculum in areas relating to equity, inclusion, and educational technology.

The purpose of this paper is to examine the ways in which the redesigned state sponsored Teacher Performance Assessment (TPA) is designed to disrupt traditional frameworks in teacher preparation that are anchored in deficit ideology and the superficial treatments of educational technology. Most teacher preparation programs address “diversity” through a multicultural approach that includes a single course about diversity that is embedded in curriculum, or through learning activities, integrated throughout the program, that requires candidates to plan for culturally driven learning activities that are often simplified to diverse celebrations and songs (Nieto, 2000). In both of these instances, the focus is on culture, which tends to essentialize students who come from marginalized groups instead of addressing the inequities that these students face in the classroom as it pertains to access and inclusion (Tyler, 2016; Gorski, 2016). With that, more recent research relating to “diversity” has called for a shift in teacher preparation that extends beyond multicultural approaches to more equity-driven instruction (Darling-Hammond, 2015; Gorski, 2016).

In alignment with these trends, this paper reviews how the redesigned TPA has included a number of elements that require candidates to gather data about their students that allows them to be more inclusive and equity-driven in their practices, so that student differences are viewed as resources and assets, instead of as deficits which continues to be present in the thinking among many teachers today (Lambeth & Smith, 2016; Valencia, 2010). The inclusion of these elements emerged from the outcomes of design team perspectives, focus group data, and survey data that originated from pilot testing and an external bias review panel.

Additionally, this paper will also highlight how educational technology will be addressed in the redesigned TPA by asking candidates to enhance student learning experiences through technology. Currently, there is a disconnect between the technology related expectations that new teachers have in the classroom, and the type of training that is received in credential programs. For example, in many classrooms, there is currently a push for teachers to advance a model of teaching where technology, pedagogy and content knowledge intersect (TPACK). However, in many credential programs, TPACK is rarely discussed in content knowledge and pedagogical methods related courses. With the goal of utilizing technology in such a way that enhances learning, the redesigned TPA requires candidates to integrate technology into a lesson, provide a rationale for the technological interventions chosen, and to document their lesson via video.”

Date/Time: Mon, April 16, 4:05 to 6:05 PM, New York Hilton Midtown, Concourse Level, Concourse B Room

Thomas, A., Edson, A. J., & Abebe, F. F. (2018, April). *Changes in K-8 in-service teachers' technological, pedagogical, and content knowledge during a graduate course about teaching mathematics with technology*. Poster presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: “This study examined the impact of a graduate course focused on the purposeful technology integration for teaching elementary mathematics. Using the Technological,

Pedagogical, and Content Knowledge (TPACK) Framework to conceptualize how elementary/middle school teachers' knowledge required for integrating technology into their teaching, participating K-8 inservice teachers' TPACK was measured using a survey instrument. While no differences were found for two subscales of TPACK (CK, PCK), statistically significant differences were found for five subscales of TPACK (TK, PK, TPK, TCK, TPACK). The results suggest that the K-8 mathematics inservice teachers' technological, pedagogical, and content knowledge improved during the graduate course."

Date/Time: Mon, April 16, 4:05 to 5:35 PM, New York Hilton Midtown, Third Floor, Americas Hall 1-2 - Exhibit Hall

Voithofer, R. J., & Nelson, M. J. (2018, April). *Factors that influence technological, pedagogical, and content knowledge adoption by teacher educators in the United States*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Abstract: "This study presents the results of an online survey of 842 teacher educators at approximately 550 different institutions across the 50 United States that examined the state and direction of technology integration preparation in accredited teacher preparation programs. It focuses on a general description of the characteristics of these teacher educators, their Technological, Pedagogical, and Content Knowledge (TPACK) adoption, and the relationships between individual and institutional factors and their TPACK adoption. The results of the research show that TPACK adoption is generally low among teacher educators and that there are multiple personal and institutional factors that influence TPACK adoption by teachers."

Date/Time: Tue, April 17, 10:35am to 12:05 PM, Sheraton New York Times Square, Second Floor, Metropolitan West Room

3. ISTE 2018 TPACK-Focused Presentations

Anderson, S., & Putnam, R. (2018, June). *What were they thinking? Special education teachers' views on technology-integration*. Paper presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110768282

Abstract: “Results of this qualitative study illustrate special education teachers' views regarding the benefits and challenges associated with integrating technology, as well as their thinking while planning and implementing technology-integrated lessons. The findings underscore the kinds of knowledge that special education teachers utilize when integrating technology into instruction.”

Focus: Digital Age Teaching & Learning
Audience: Beginner
Date/Time: Monday, June 25, 1:00–2:00 pm

Bradley, G., & Hunt-Barron, S. (2018, June). *Challenges in developing technologically fluent and flexible teachers*. Paper presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110806106

Abstract: “The results of a three-semester study will be shared; the study focused on the impact of pre-service teachers attitudes toward and skills using digital technologies on future classroom practices. Researchers will discuss the possible effects of technology-intensive courses on developing technologically fluent and flexible teachers.”

Focus: Professional Learning
Audience: Beginner
Date/Time: Monday, June 25, 8:30–9:30 am

Brynteson, K., & Erickson-Betz, E. (2018, June). *Personalized PD for personalized student learning through technology*. Poster presented at the International Society for Technology in Education Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110877873

Abstract: “The purpose of this poster session is to share lessons learned from a multi-year collaborative relationship between a university and a K-8school district designed to support 1:1 technology and personalized student learning. In this session, we will reflect on this relationship and provide an overview of the topics covered over the past two years, from learning new Google Apps, to understanding the SAMR model, to developing a personalized learning philosophy. We will also explore how the professional development has evolved to meet the needs of the teachers and how, in year three, we are embracing personalized professional learning through a teacher-designed learning project.”

Focus: Digital Age Teaching & Learning
Audience: Beginner
Date/Time: Monday, June 25, 2:00–4:00 pm

Cairns, S., & Galang, R. (2018, June). *Gamestorming TPACK: What we mean when we talk about technology integration*. Workshop session conducted at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110824225

Abstract: “What does good technology integration look like? How do we clearly articulate to stakeholders our vision of learning and teaching with technology? You'll engage in a Gamestorming activity to familiarize yourself with the TPACK framework. You'll leave with language and ideas to advocate for meaningful technology use.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Time: Monday, June 25, 4:00–5:00 pm

Campbell, S., & Hoffman, M. (2018, June). *Thinking, talking and collaborating: Using online tools for language acquisition*. Poster presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110874461

Abstract: “Hear about a variety of interactive online tools to aid language acquisition for K-12 language learning students. Pedagogies addressed will inspire students to think, talk and collaborate to produce high-quality content. Attendees will receive many lesson examples for each tool.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Time: Tuesday, June 26, 10:30 am–12:30 pm

DeSantis, J. (2018, June). *Tech-integrated social studies: Comparing synchronous and asynchronous approaches*. Paper presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110726624

Abstract: “This presentation will share the results of a study comparing synchronous and asynchronous approaches to teaching high school students about the Spanish-American War. Did students learn more from tech-enhanced face-to-face instruction or from question-embedded video? Attendees will find out.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Time: Monday, June 25, 8:30–9:30 am

Dickenson, P., & Sistik-Chandler, C. (2018, June). *TOSA's enhancing teacher knowledge and practice*. Paper presented at the meeting of the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110847562

Abstract: “How do coaches support technology integration in the K12 classroom while supporting student and teacher outcomes? This study examines the intentions and strategies of Instructional Coaches who support and provide professional development for K-12 teachers. District mandates such as testing were one of many barriers to technology use.”

Focus: Professional Learning

Audience: Intermediate

Date/Time: Monday, June 25, 2:30–3:30 pm

Farrell, M., & Tuttell, C. (2018, June). *Digital tools to amplify student voice beyond the walls of the classroom*. Poster presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from

https://conference.iste.org/2018/program/search/detail_session.php?id=110818245

Abstract: “Amplifying student voice is not a new concept. The ways in which we empower students to share and be heard are. In this session, you will learn about a variety of tools that allow students to: create content, work critically to solve problems, collaborate seamlessly beyond school walls, and communicate their learning to a global audience. With the innovation of various audio and video tools the walls of the classroom are no longer barriers, connected learning knows no limits, and student voice can be amplified in arenas that were previously unattainable. With a little guidance, students can explore options to learn, grow, and empower themselves and others to #becomebetter together. In this session, we will move beyond a simple tool discussion. We will use the SAMR and TPACK models to explore the connections between tools, content, and pedagogy so that students can soar beyond expectations and achieve more than was ever thought possible. Whether you teach kindergarten or college you will find something in this session that will apply to your students. We will show you how to harness the potential of tools like Flipgrid, DoInk and Soundtrap so your students' voices are amplified for all to hear.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Title: Wednesday, June 27, 11:00 am–1:00 pm

Johnson, D., & Padgett, C. (2018, June). *Mask off: Unmasking the coaching cycle to effectively transform schools and students*. Poster presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from

https://conference.iste.org/2018/program/search/detail_session.php?id=110877803

Abstract: “The purpose of this session is to help instructional technology coaches continue to grow in their coaching practices. We'll discuss the coaching cycle, including observations, how to effectively take notes, effective feedback and, most importantly, processes for monitoring implementation of action steps based on the TPACK Framework.”

Focus: Professional Learning

Audience: Beginner

Date/Time: Tuesday, June 26, 1:15–3:15 pm

Kek, J. (2018, June). *Leadership in media design*. Workshop conducted at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from

https://conference.iste.org/2018/program/search/detail_session.php?id=110725529

Abstract: “Taking into consideration student-centred pedagogy (questioning techniques and protocol), ISTE Standards, TPACK framework and the age of digital learning, the sharing will focus on the rationale behind media design for learning. Participants will learn about the leadership, thinking, collaborative and planning processes that go into harnessing the affordances of media design for learning. Using video clips, the presenter will share how the video medium lends itself well to teaching and learning, assessment and professional development of teachers. Adopting a leadership and division-wide approach to tech-integration perspective, there will be sharing on success stories and how institutions can adapt and adopt the strategies to enhance students' learning. Participants will learn the thinking behind media design for learning, how the video medium lends itself well to teaching and learning and how to put in processes for effective integration.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Time: Wednesday, June 27, 9:00–10:00 am

Linton, J. (2018, June). *Preparing and supporting online instructors with quality professional learning*. Paper presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from

https://conference.iste.org/2018/program/search/detail_session.php?id=110719294

Abstract: “As online learning opportunities for K-12 students continue to grow, there is a need to adequately prepare instructors for effectiveness in a new learning environment. In this session, Dr. Jayme Linton will share findings from her research examining ways that K-12 online teachers are prepared and supported.”

Focus: Professional Learning

Audience: Beginner

Date/Time: Monday, June 25, 11:30 am–12:30 pm

Neebe, D. (2018, June). *Differentiating literacy instruction for digital learners: The effect of multimedia think-alouds*. Paper presented at the International Society for Technology in Education 2018 Conference, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110909153

Abstract: “This session will share original research into cutting-edge digital pedagogy for analytical reading instruction. The study centers around multimedia worked examples that explicitly model the reading habits of successful readers through teacher think-alouds. The result was effectively differentiated instruction for adolescent students with access to 1:1 technology.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Time: Wednesday, June 27, 10:00–11:00 am

Phyall, A., & Williams, J. (2018, June). *Putting the pieces together: Using technology to increase academic achievement*. Workshop session conducted at the meeting of the International Society for Technology in Education, Chicago, IL. Abstract retrieved from https://conference.iste.org/2018/program/search/detail_session.php?id=110904060

Abstract: “We'll focus on increasing the level of technology innovation by demonstrating how to build lessons and activities that are engaging, rigorous and relevant for all students by using the Rigor Relevance Framework, SAMR and TPACK.”

Focus: Digital Age Teaching & Learning

Audience: Beginner

Date/Time: Monday, June 25, 5:00–6:30 pm

4. TPACK Newsletter Suggested Citation

Our thanks to [Lisa Winebrenner](#), who wrote to suggest that we suggest a citation format for you ‘academic types’ who might want to cite something that appears in this humble virtual publication. Our reading of the most recent (6th edition) of the *Publication Manual of the American Psychological Association* suggests that the citation should look like this:

Harris, J., & Wildman, A. (Eds.). (2018, March 11). *TPACK newsletter issue #36: Special spring 2018 conference issue* [Electronic mailing list message]. Retrieved from <http://bit.ly/TPACKNewslettersArchive>

5. Learning and Doing More with TPACK

Interested in learning more about TPACK or getting more involved in the TPACK community? Here are a few ideas:

- Visit the TPACK wiki at: <http://tpack.org/>
- Join the TPACK SIG at: <http://site.aace.org/sigs/tpack-sig/>
- Read past issues of the newsletter at: <http://bit.ly/TPACKNewslettersArchive>
- Subscribe to the tpack.research, tpack.teaching, tpack.grants and/or tpack.future discussion lists at: <http://site.aace.org/sigs/tpack-sig/>
- Access the TPACK Learning Activity Types taxonomies at: <http://activitytypes.wm.edu/>
- Access three tested TPACK assessment instruments at: <http://activitytypes.wm.edu/Assessments>
- Access and/or adapt TPACK online short courses at: <http://activitytypes.wm.edu/shortcourse/>

Please feel free to forward this newsletter to anyone who might be interested in its contents. Even better, have them subscribe to the TPACK newsletter by sending a blank email to sympa@lists.wm.edu, with the following text in the subject line: subscribe tpack.news FirstName LastName (of course, substituting their own first and last names for 'FirstName' and 'LastName' — unless their name happens to be FirstName LastName, in which case they can just leave it as is).

If you have a news item that you would like to contribute to the newsletter, send it along to: tpack.newsletter.editors@wm.edu.

Standard End-Matter

If you have questions, suggestions, or comments about the newsletter, please send those to tpack.news.editors@wm.edu. If you are subscribed to the tpack.news email list, and — even after reviewing this impressive publication — you prefer not to continue to receive the fruits of our labors, please send a blank email message to sympa@lists.wm.edu, with the following text in the subject line: unsubscribe tpack.news

- Judi & Amelia

...for the SITE TPACK SIG leadership:

Mamta Shah ,	Co-Chair, Drexel University
Teresa Foulger ,	Co-Chair, Arizona State University
Josh Rosenberg ,	Camping Chair, Michigan State University
Petra Fisser ,	Red-Blue Chair , SLO Expertise Center, National Curriculum Development
Candace Figg ,	Rocking Chair, Brock University
Mark Hofer ,	Sedan Chair, College of William & Mary
Judi Harris ,	Wing Chair, College of William & Mary
Mario Kelly ,	Futon, City University of New York
Matt Koehler ,	Chaise Lounge, Michigan State University
Punya Mishra ,	Recliner, Arizona State University