

## Understanding TPACK

1. What is the learning problem you are trying to solve?
2. What is your solution to the learning problem?
3. What are the technologies you wish to integrate to address the problem?
4. What contextual factors (think through the social network analysis lens) will impact the implementation of your learning-technology initiative?

Several years ago, I was involved in trying to implement an America's Choice program into the school where I was teaching 2<sup>nd</sup> grade. The goal of America's Choice programs is to provide "school designs and instructional systems to help low performing schools raise their performance. America's Choice partners with states, districts, and schools to deliver solutions to improve results for all students by providing high-quality materials, professional development, and technical assistance that bring increased rigor to instructional programs" (National Center on Education and the Economy [NCEE], 2015). My goal within this program was to find ways to help teachers incorporate technology and ISTE standards into their curriculum planning.

Since our program worked mostly on the idea of having a mini-lesson, work time, then student sharing for problem solving, I proposed to the school using a SMART board program for the mini-lesson then using a scanner and SMART board to enhance the student sharing and problem solving section of the lesson. My piece of this initiative, really was small in comparison to adding to the overarching problem of implementing the America's Choice program overall, but it did play a major part in the adoption of the program as I was tasked with ensuring that all teachers knew how to use their technology, troubleshoot their devices, and incorporate their devices into their daily lessons.

Many teachers were strongly against implementing the America's choice program as they felt that it was a punishment for working in a Title I district. Therefore, many teachers were also opposed to any technology that had to be learned in addition to the complicated America's

Choice program that had to be ingested. The other factor working against me was that teachers that had been working in the school system were going to have to re-write lesson plans that they had been using for years in order to accommodate the America's Choice program. How this worked for me, however, was that since the teachers had to re-write their lesson plans anyway, it was easier to insert technology into those planning sessions rather than having to get teachers to re-write lesson plans twice. As I mentioned, teachers at my school had been there for many years, so a great many of them were not going to be my early-adopters, and I knew that. I was going to be lucky if I could 40% to be on board. I knew from the start that finding the right people to be my key social actors would be the best way to ensure that the teachers from different circles would adopt the technology changes that I was proposing.

Category	Description	Requisite Knowledge
PK	Knowledge about pedagogy and instructional strategies	Teachers will have to understand how technology impacts their daily lessons. There are impacts on transitioning, how to set up the classroom, and behavior management when introducing technology into a classroom. Teachers will need to understand how to appropriately address these areas before they begin their curriculum specific planning.
CK	Knowledge about content in teachers' curriculum	For each content area, teachers will need to have a firm grasp on the curriculum and the standards that are required. When planning lessons, teachers will need to have an understanding of the curriculum standard being taught as well as what technology standards can be address in congruence with the subject matter standard.
TK	Knowledge about technology and how to use specific technological tools	Teachers will need to know how to use SMART boards, projectors, and scanners. They will need to understand how these technologies will impact their timing and transitions as well as their overall lesson plans. Further, they will need to know the apps built into the SMART board and how they can be used to assist in the plans that they create.
TPK	Knowledge about how to teach with specific technologies	For each specific content area, teachers will need to understand how the SMART board is incorporated into their lesson. How will the mini lesson be

		structured to enhance the curriculum standard being addressed? Teachers must understand how the SMART board works in order to appropriately engage students within the lesson.
TCK	Knowledge about how technology aligns to various curricular content or concepts	Teachers must have a wide knowledge of the programs and apps available through their SMART board that will help them accomplish their curriculum goal. The teachers must understand what standards can be addressed by different programs available to them. They must also understand how to incorporate these items into their mini-lesson to enhance student understanding.
PCK	Knowledge about how to teach specific curricular content or concepts	Teachers must have a firm grasp on their curriculum area content. Teachers will need to have a good understanding of best practices within the subject matter. Further, they will need to be able to articulate these content areas to their technology coach if they need assistance with incorporating technology into a lesson.
TPACK	Synthesized knowledge about how to use technology and instructional strategies to teach specific concepts as well as about how the use of technology changes our understanding of the content and of how to teach the content	Overall, teachers will have to blend all of the areas already mentioned in the table above. They will need to be able to understand how the technology and curriculum work together within their lesson planning process. Teachers will need to know both their curriculum standards as well as the technology standards in order to merge these two together in their planning processes.

## References

National Center on Education and the Economy. Retrieved July 20, 2015 from:

<http://www.ncee.org/programs-affiliates/history/americas-choice/>