

How Does Using a Digital Platform Develop Communication and Collaboration in the 21st Century Classroom?

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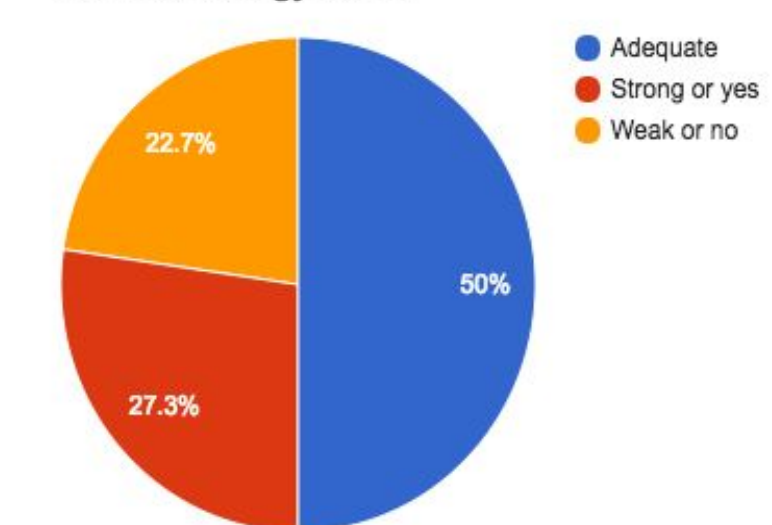
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Introduction

Studies have shown that the integration of technology in the learning process tends to engage students more than the traditional paper and pencil (Pearson, 2010). This action research project involved students responding to nightly reading by using a class blog instead of a paper and pencil reading log. This project was incepted to explore students lack of enthusiasm in nightly reading logs. Collaboration and blogging were posed as variables that might influence change in attitude; students were expected to respond to a classmate's blog as well as write their own. The post-analysis data showed that students reading engagement and communication with each other increased from that of the original unshared paper logs.

As a result of these findings and, after surveying colleagues, the the results will be presented at the researcher's school site and encourage other teachers to take a risk with a technology tool in order to engage students in 21st century skills.

Count of How comfortable are you with trying new technology tools?



77% of teachers indicated they were willing to learn and try a new technology tool in their classroom.

Background and Need

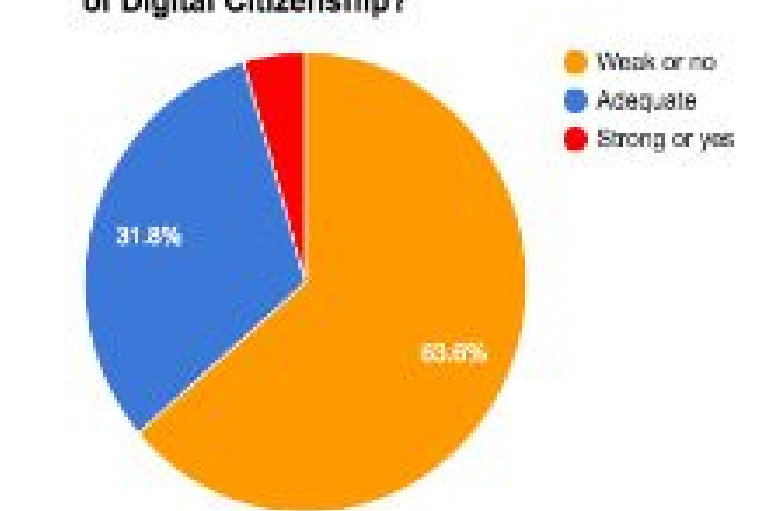
It is necessary to instill 21st Century learning skills into the minds of students in order to help close the achievement gap and prepare our students for college and/or the workforce. Napa Valley Unified School District's goals in 2015 were simple:

- First, make students college and career ready.
- Second, provide equitable access in order to close the achievement gap.
- Third, to instill 21st century skills in students.

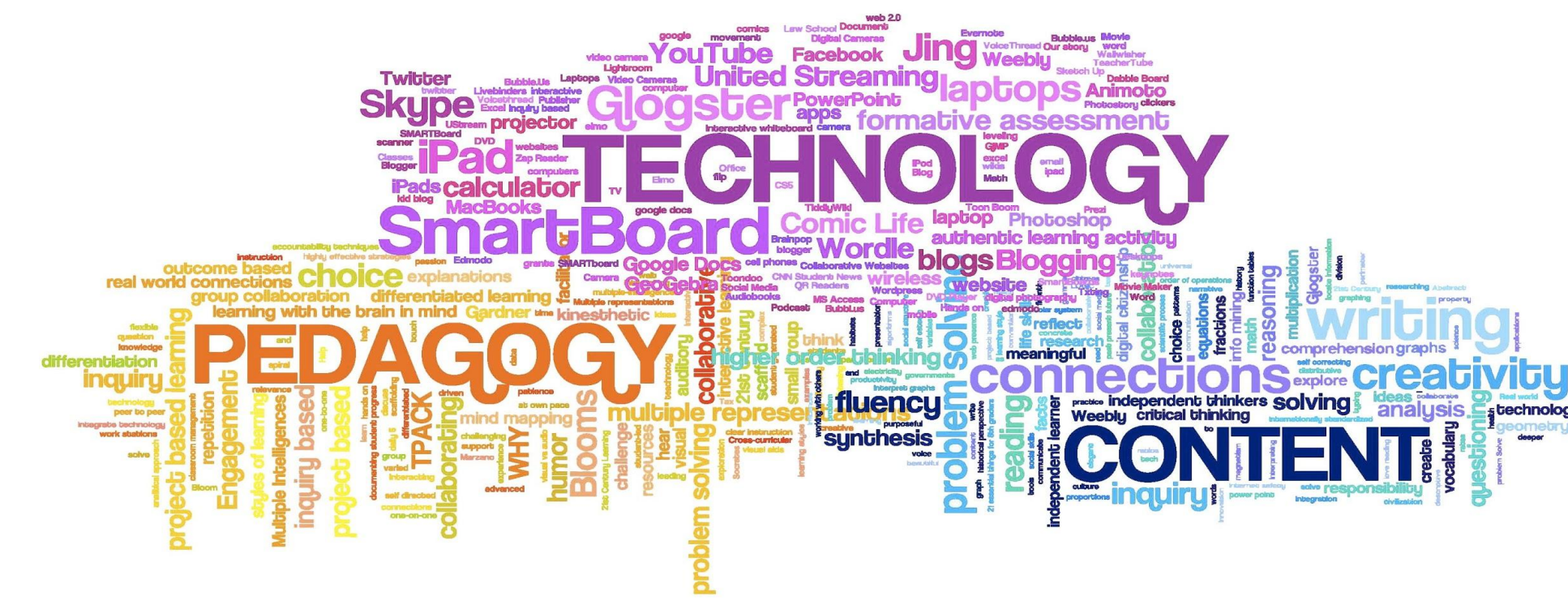
If teachers continue to expect homework participation or all classwork with paper and pencil and no communication or collaboration, they are not living up to the district goals. As professional educators it is time to take that next step towards meeting our district goals. This transition should begin with lessons on digital citizenship. As seen in the chart below, the site where this study took place was a representative sample population according to the data.



Count of Are you aware of the nine components of Digital Citizenship?



TPACK Framework



Technology is changing the way education is delivered and has opened the doors to new ways for students to communicate and collaborate in our classrooms today. This innovation cannot be ignored by educators, but rather needs to be embraced.

TPACK changes the teacher's perspective on pedagogy, in the context of the content to be taught and the context for learning. Technological Pedagogical And Content Knowledge, developed by Mishra and Koehler (2006), is a framework which addresses the relationship of technology, pedagogy, and content. If school districts adopt the TPACK model and provide professional development, it is possible for teachers to feel the excitement the use of technology and its possibilities bring to the classroom. Many teachers still believe creating presentation slides is teaching all 21st Century skills. However, knowledge of what types of pedagogical changes can happen through technology through professional development is a long term process. The researcher discovered that, over time, her attitude changed and she is no longer afraid to try new programs, web tools or to troubleshoot on a computer. More importantly, she is also no longer afraid to try something and fail at it the first time. Learning from our mistakes is an important lesson to teach our students.

Puentedura (2008) described teachers' evolution in thinking about technology via his SAMR model. The *Substitution* and *Augmentation* levels represent early stages of teachers' use of technology - presentation slides are an example of substituting the use of technology for a task formerly completed using paper and pencil. To be able to *Modify* and *Redefine* learning, teachers need time to explore how the TPACK intersection affects learning.

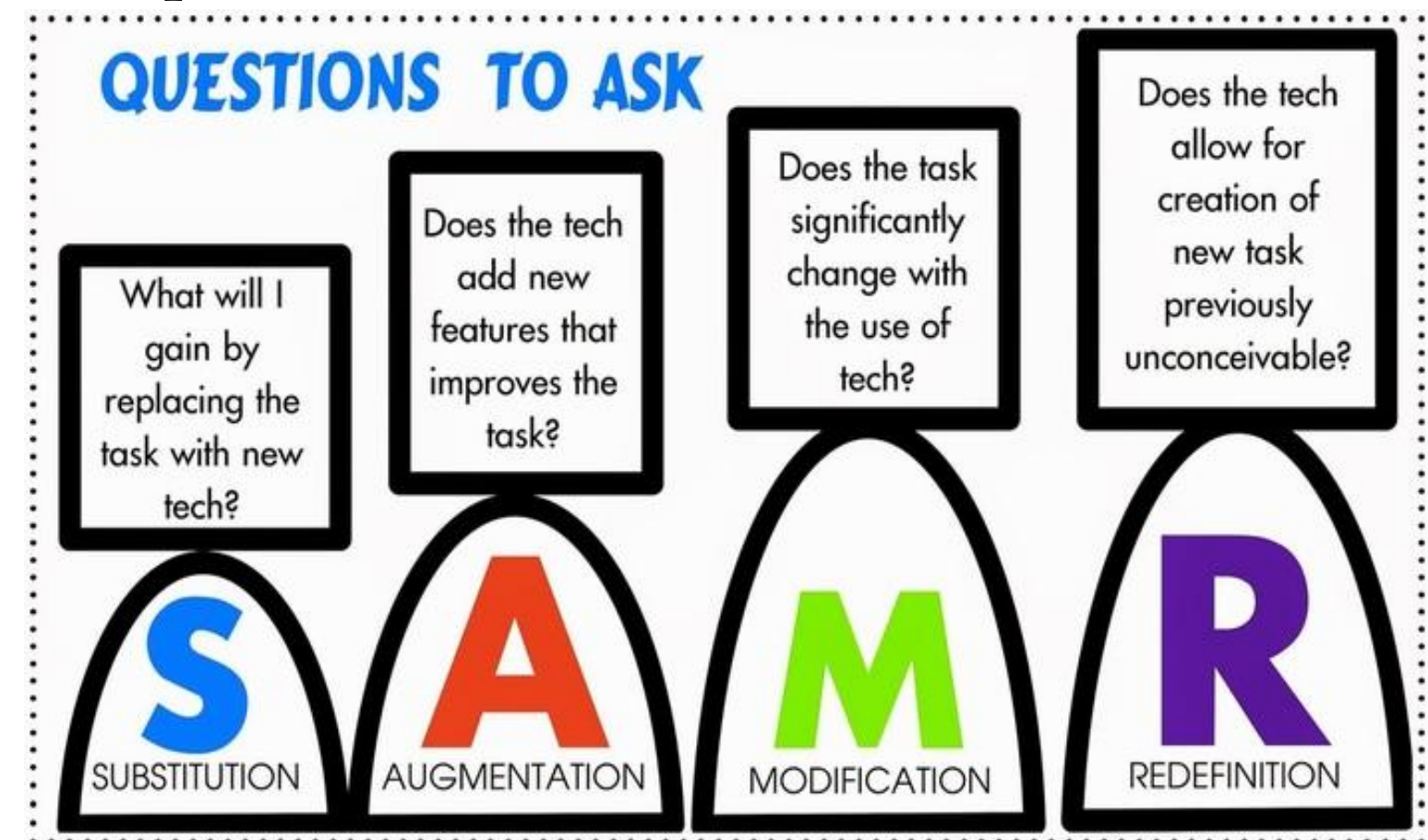
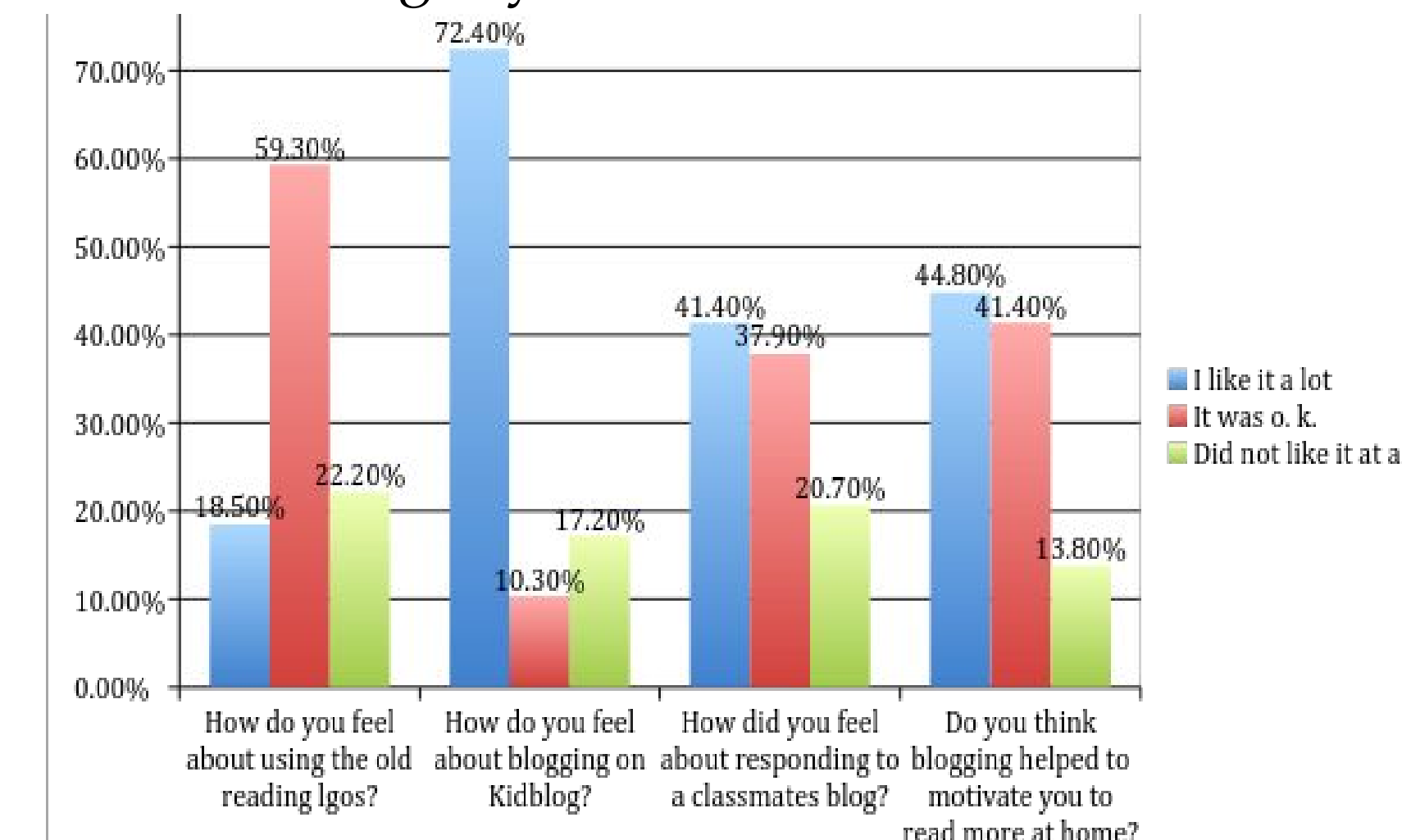


Image Source: EdSurge (2015) <https://www.edsurge.com/news/2015-02-06-a-guide-for-bringing-the-samr-model-to-ipads>

Results

Research on the substitution of blogging for traditional reading logs combined with analysis of the effect of peer-communication and collaboration on student engagement with independent reading led to this capstone project was conducted in early 2016. The primary source of qualitative data were the trends and patterns observed in the student blogs and comments. These data were analyzed using the constant comparative method. Codes were chosen based on patterns and trends in data that helped to answer the research questions by observing if the blogs helped with communication and collaboration in the context of independent reading. In order to help answer the research question, the focus areas of the blogs needed to be specific and the quality of the reading needed to be determined. The researcher chose the following categories: engagement with reading, reading comprehension, critical thinking, and making connections.

A secondary quantitative source of data was collected through a student questionnaire. Students were asked their opinions about the original reading logs, opinions on blogging, opinions on commenting, and whether or not the students felt that blogging helped motivate them to read more nightly.



The data indicated a positive result. The students liked blogging as a form of communication. When it came to responding through the comments section, only 41.4% of the students liked commenting. It is important to note that almost 21% of the students did not enjoy commenting and 37.9% said it was *just okay*. This may indicate that students were not as motivated to comment due to no computer access at home or it may have been an effect from this first experience with communicating via a blog. A longer study of this effect would be beneficial. Finally, quantitative results showed that almost 45% of the class thought that using the online blog helped motivate them to read more, leaving 41% unsure, and almost 14% feeling that using the online blogs did not motivate them to read more independently. The results led to a capstone goal to educate teachers on TPACK and technologies available to support learning.

Conclusions

- Students were more engaged in nightly reading.
- Students were more engaged in responding to their reading.
- Students demonstrated comprehension by blogging.
- Most students made connections to their book or with the characters in their book.
- Some students made connections via the commenting section.
- Collaboration was evident by viewing students comments/questions with each other.

A similar impact on motivation was also found in a study conducted using electronic storybooks to motivate first graders to read, demonstrating that online activities do make a difference in motivating and engaging students (Ciampa, 2012). Further studies in this area are imperative in helping teachers to become effective 21st Century teachers.

Work Cited

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Acknowledgments

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Further information

Please contact adearborn@nvusd.org for more information. Also, you can find many tech resources if you visit my website at www.learninginnovationlab.com. (search "Dearborn")



Diving into Digital Tools