

Minnesota Principals Academy – Action Learning Project

Dr. Judy Nagel

The Implementation of 1:1 Technology: The Teacher Perspective

Abstract

This action learning project utilized survey and interview methods to evaluate the implementation and integration of the iPad mini for students in grades six through eight during the 2014-2015 school year. This project focused on the impact and implementation of the Inspire: 1:1 iPad mini device integration at the middle level and the impact of job-embedded professional development on teacher practice and learner outcomes with this program adoption. The specific research question reviewed what effect educator professional development has on instructional practices, strategies, teacher perceptions, and confidence during the 1:1 iPad implementation for middle level students? The goals and strategy of this project were to positively impact teacher practice through systematic job-embedded professional development opportunities. This process asked middle level teachers to complete two surveys, one prior to the device roll out and onset of the program, and one a few months later after the iPads had been utilized within the classroom for a few months to obtain their views on the professional development model and overall process and integration of technology. Information was also obtained from interviews with staff members and additionally from reviewing district level surveys which middle level teachers completed as part of the district's technology department's formal review of the new programming.

The evaluation concluded that staff placed a high value on the additional professional development sessions that were offered this year to help better prepare them and support new learning through an on-going process of professional development. The common challenge that is frequently evident with on-going professional development is when and how to provide on-going professional development to staff members over time that does not remove them from the classroom for extended periods of time. In addition, other challenges include how to best fund these efforts continually over time and support staff through more than the first year of the implementation process, and how to distinguish and differentiate the professional development opportunities to best support and needs of all learners from the early adopters to the more reluctant and reticent educators with the integration of technology in the classroom.

Vision:

- ❖ All students will demonstrate readiness skills to be successful in today's and tomorrow's society.
- ❖ Anytime, anywhere learning via a growth mindset through transformative learning with technology.

Background/Context: District demographics of the student population reflect approximately 10,000 students with approximately 55% of the students are eligible for free or reduced lunches and 17% of the students are eligible for English Learner services. The school's student population includes the following ethnicity counts: 1% American Indian, 4% Asian/Pacific Islander, 29% Black, 6% Hispanic, and 60% Caucasian students. This project took place during the 2014-2015 school year, primarily between October 2014 and May 2015.

What prompted the change? The Inspire 1:1 iPad integration was initiated after a comprehensive five year district strategic plan was adopted which focused on learning for a lifetime, readiness skills, and effective instructional practices and enhancements that jumpstarted many corresponding action plans. In addition, the onset of a more inclusive curricular review and assessment process at all levels and determining what related technology elements would be needed to support the upcoming influx of curricular updates, a thorough review of best practices and current research in technology integration, and review what other districts both locally and around the state were offering as part of their E-12 curriculum and integrated technology programming led this process.

What were the next steps with the project results? District technology staff members and building administrators continued to review the professional development model and its overall effectiveness recognizing the need for ongoing supports and professional development every year to continually build skills and knowledge for all staff members. Plans for next year are still being determined with consideration being given to continuing the on-going professional development for a small group of representatives (*Inspirers*) at each building. This would be similar to the preceding year but rather having these sessions potentially being scheduled after the school day has ended to minimize instructor time away from the classroom and/or in conjunction with online, webinar, and/or video on-demand instructor which would provide flexibility for the educators to view according to their individual schedule and/or learning preferences as needed.

What were the conclusions?

- ❖ Starting small with only a few apps and Schoology worked well to grow the program, build teacher confidence, and ensure increased technology integration within the classroom setting.
- ❖ Teachers appreciated the professional development time that was dedicated to support them all year.
- ❖ Having a small number of building representatives as a conduit for monthly professional development helped to provide timely and convenient access to resources and assistance and not overwhelm them.
- ❖ Teacher's perceptions of their own learning, comfort level, patience, and confidence with technology integration and application steadily grew over the course of the year.
- ❖ As teacher's confidence grew there was a direct correlation of increase technology integration in their classroom which subsequently corresponded with an increased interest in learning more strategies, tips, and apps to experiment with and incorporate into their content areas. This also sparked increased collaboration amongst staff members regarding many areas such as classroom management, instructional practices, problem-solving, research, and all areas related to technology integration within the classroom.
- ❖ Staff reported increased levels of student engagement and was starting to see other benefits of student 24/7 student learning access linked to homework completion, parent feedback and in other areas as well.

Implications for practice?

1. **Professional Development Format**
 - a. District staff seeking customized range of options to meet a range of skills and learning styles
 - b. Recognition of ongoing support needs through the first few years of the implementation
 - c. Importance of differentiated content needs to address diverse learners – *early adopters to reluctant participants*
 - d. Continuation of building representatives allows for more personable, individualized learning and accessibility for problem solving, usable and immediate strategies, feedback and differentiation
2. **Needs Assessment**
 - a. Importance of ongoing collection of data over time to best define and maximize the professional development opportunities for a range of staff experience and confidence levels
 - b. Compare and contrast trend data to determine progress on outcomes and program indicators
3. **Resource Allocation**
 - a. Determine the best formats that provide the most instructional impact with minimum costs
 - b. Minimize time educators are away from classroom balancing with needs for ongoing learning
4. **Impact on Learning and Teaching**
 - a. Continue with ongoing data collection on student engagement, homework completion, parent involvement, and progress on assessments – all areas showing increases and improved measures
 - b. Tech staff - meet individual teachers where they are at and engage them in job-embedded professional development within the classroom to build teacher instructional skills in real time