



It Takes a City

DC Does it Best!

Leveraging Technology:

Facilitating Personalized Teacher Development via Video Self-Analysis



Jimmy Jang

Ph.D. Student

Instructional Design, Development, and Evaluation

jejang01@syr.edu

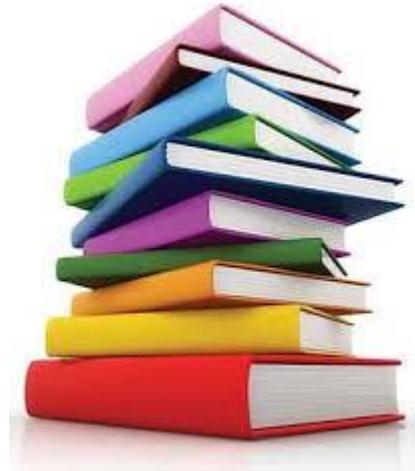
Syracuse University



District of Columbia Office of the State Superintendent of Education
It Takes a City • DC Does it Best!

Session Objectives

- ✓ **Context**
- ✓ **Problem**
- ✓ **Methodology**
- ✓ **Findings**
- ✓ **Future Implications**



Context

Teacher educators & teacher preparation programs currently embrace:

- **collaborative learning instructional strategies to enhance their preservice teachers teaching efficacy** (e.g., design teams, design projects, peer analysis, peer-coaching).

However, recent studies suggest these instructional strategies may not be the best strategy in preparing 21st century educators.

- **teacher preparation program are not only unprepared to teach with technology** (Mouza et al., 2014; U.S. Department of Education, 2010).
- **unprepared to meet the challenges of teaching in a 21st century classroom** (Goodwin, 2012; Conroy, Alter, Boyd & Bettini, 2014; Freeman, Simonsen, Briere & MacSuga-Gage, 2014).



Problem

- Billions of dollars are invested each year in the U.S. on educational technologies and technological infrastructure (Richards & Stebbins, 2012).



- However, teachers are not prepared to effectively and/or meaningfully teach with educational technologies.



Methodology

Setting

- This study was implemented in a mandatory technology integration course at a large private university, located in the northeastern United States.

Participants

- Twelve (12) preservice teachers, enrolled in a mandatory one credit technology integration course.
- Eleven participants were female (92%), and one participant was male (8%).
- All participants (100%) were in their final semester of their teacher preparation program and had successfully completed their required field practicums.



Methodology (continued...)

Research Design

- Single case study design
- Case studies are also effective in “catching the complexity of a single case” (Stake, 1995, p. xi) by providing insight into a central phenomenon (Creswell, 2002; Yin, 2014).

- This technology course consisted of six class sessions
- Each session lasted for two hours and fifteen minutes.



Methodology (continued...)

- Preservice teachers were instructed to construct a micro “technology enhanced” lesson plan.
- Teachers taught their micro lesson
- Micro teaching simulations were digitally recorded



Methodology (continued...)

- Teachers used an observation instrument to facilitate their self-analysis of their videotaped microteaching simulation.

Technology Integration Observation Instrument³¹

Directions: Referring to the notes you made on the previous page, including your responses to the question about influences, please complete the following rubric, considering the lesson as a whole.

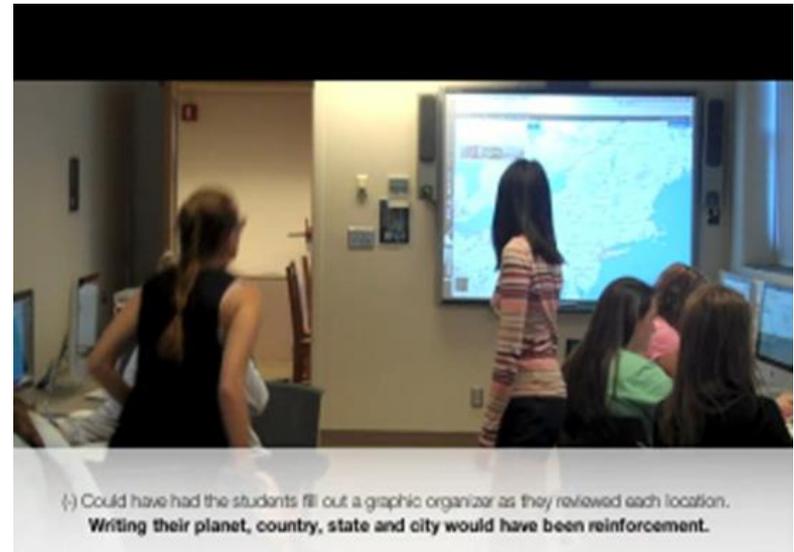
	4	3	2	1
Curriculum Goals & Technologies (Matching technology to curriculum)	Technologies used in the lesson are <u>strongly aligned</u> with one or more curriculum goals.	Technologies used in the lesson are <u>aligned</u> with one or more curriculum goals.	Technologies used in the lesson are <u>partially aligned</u> with one or more curriculum goals.	Technologies used in the lesson are <u>not aligned</u> with one or more curriculum goals.
Instructional Strategies & Technologies (Matching technology to instructional strategies)	Technology use <u>optimally supports</u> instructional strategies.	Technology use <u>supports</u> instructional strategies.	Technology use <u>minimally supports</u> instructional strategies.	Technology use <u>does not support</u> instructional strategies.
Technology Selection(s) (Matching technology to both curriculum and instructional strategies)	Technology selection(s) are <u>exemplary, given</u> curriculum goal(s) and instructional strategies.	Technology selection(s) are <u>appropriate, but not exemplary, given</u> curriculum goal(s) and instructional strategies.	Technology selection(s) are <u>marginally appropriate, given</u> curriculum goal(s) and instructional strategies.	Technology selection(s) are <u>inappropriate, given</u> curriculum goal(s) and instructional strategies.
"Fit" (Considering curriculum, pedagogy and technology all together)	Curriculum, instructional strategies and technology <u>fit together strongly</u> within the lesson.	Curriculum, instructional strategies and technology <u>fit together</u> within the lesson.	Curriculum, instructional strategies and technology <u>fit together somewhat</u> within the lesson.	Curriculum, instructional strategies and technology <u>do not fit together</u> within the lesson.

Technology Integration Observation Instrument" by Judi Harris, Neal Grandgenett & Mark Hofer



Methodology (continued...)

- Preservice teachers participated in two iterations of video self-analysis
- Each self-analysis were directed by specific reflection prompts



Findings

- Video Self-Analysis positively impacted ability to effectively integrate technology
- **Teachers modified their future instruction** (based on their video self-analysis findings)
- **Improved ability to effectively integrate technology**

Scale	
Strongly Agree	= 5
Agree	= 4
Neutral	= 3
Disagree	= 2
Strongly Disagree	= 1

<i>IDE401 ALL Course Evaluations</i>	Fall 2013, Section M001 (n=11)	Fall 2013, Section M002 (n=8)	Spring 2014, Section M001 (n=11)	Spring 2014, Section M002 (n=9)	Spring 2014, Section M003 (n=8)	Fall 2014, Section M001 (n=7)	Fall 2014, Section M002 (n=12)	Spring 2015, Section M001 (n=13)	Spring 2015, Section M002 (n=8)	Spring 2015, Section M003 (n=2)	AVG. ACROSS SECTIONS (n=89)
Assignments											
Projects and assignments helped me learn the material.	5.00	4.88	4.83	4.78	4.88	5.00	5.00	4.69	5.00	5.00	4.91
Class assignments helped me think of ways to improve my teaching pedagogy.	4.91	4.75	5.00	4.89	4.88	5.00	5.00	4.69	5.00	5.00	4.91
The assignments helped me identify my strengths (+) and areas where I can improve (-) as a teacher.	4.91	4.88	4.92	4.78	4.88	5.00	4.92	4.69	5.00	5.00	4.90
Class Activities											
Class activities helped me learn the material.	5.00	4.88	4.92	5.00	4.88	5.00	4.92	4.77	5.00	5.00	4.94
Class activities were interesting.	5.00	4.88	4.83	4.89	4.88	5.00	5.00	4.62	5.00	5.00	4.91
Class activities helped me meaningfully integrate technology into my teaching.	4.91	4.88	4.83	4.89	4.88	5.00	5.00	4.92	5.00	5.00	4.93
General											
I liked this course.	4.82	4.88	4.83	4.78	4.88	4.71	5.00	4.77	4.86	5.00	4.85
I will recommend this course to others.	4.82	4.88	4.83	4.78	4.88	4.71	5.00	4.69	4.86	5.00	4.85



Future Implications

- Leverage video self-analysis to personalize teacher development (e.g., classroom management, pedagogy)
- Create online database of teachers videotaped teaching simulations
 - Resource for Best Practices
 - Measure Growth
 - Evaluation / Diagnostic Purposes

