Accelerate Student Learning Through Meaningful Technology Integration

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Program Description

How do lead learners support teachers with the integration of technology by using the TPACK (Technology, Pedagogy and Content Knowledge) framework? Hear about Long Beach Unified School District’s diffusion of technology with authentic, purposeful and collaborative implementation to accelerate learning. Leave with an understanding of how to coordinate efforts with curriculum leads to lead purposeful integration of technology with a focus on content and pedagogy.
Participant Outcomes

- Understand how the **TPACK** (Technological, Pedagogical, Content Knowledge) framework, the **SAMR** (Substitution, Augmentation, Modification, Redefinition) model, and the **4 C’s** (Communication, Collaboration, Creativity and Critical Thinking) drive technology integration.
- Understand how the TPACK framework prioritizes content and pedagogy when integrating technology into classroom instruction.
- Explore the purposeful process and thoughtful planning involved in the diffusion of effective technology integration.

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- **LBUSD Context**
- **Why Tech Integration?**
- **Technology in LBUSD**
- **Drivers of Technology Integration**
- **The Diffusion**
65% Socioeconomically Disadvantaged

72,000 Students

85 Schools

17 HS

23 M & K-8

12.3% English Language Learner

3000 Teachers

46 Elem.

Why Tech Integration?
Why Tech Integration

Simply adding technology to K-12 environments does not improve learning. What matters is how it is used to develop knowledge and skills.  
Zucker and Light, 2009
True Integration......where do we start?

California Common Core State Standards

Mathematics
Electronic Edition

HISTORY SOCIAL SCIENCE FRAMEWORK
For California Public Schools
Preparing Students for California's Democracy

CTE
Learning that works for California

Schools must inquire deeper into their own practices, explore new ways to motivate their learners, make use of learning styles, introduce multiple intelligences, integrate learning, and teach thinking, and in the process discover the passion and moral purpose that makes teaching exciting and effective.

— Michael Fullan —
Technology in LBUSD

Role of Technology Before Chromebooks

**Devices**
- Computer labs for testing
- 11,000 iPads
- 1-2 Desktop computers in classrooms

**Technology PD**
- Opt in
- Technical training
- No buy in from classroom teachers

**Technology in the Classroom**
- Limited use
- Support testing skills
- Consumption
- Assessments
2016 Arrival of Chromebooks

- 85,000 Chromebooks
- 11,200 iPads

Mobile Devices

- 85,000 Chromebooks
- 11,200 iPads
Technology “Shifts” in the Classroom

- Digital district and state assessments
- Digital Curriculum
  - K-12 ELA
  - K-12 Math
- Intervention Resources
  - ST Math
  - Khan Academy
  - Lexia Core 5
- One-to-One devices
- myPD - Professional Development System

……..techno-promoters across the board assumed that increased availability in the classroom would lead to increased use. Increased use, they further assumed, would then lead to efficient teaching and better learning which, in turn, would yield able graduates who can compete in the workplace.

Larry Cuban, 2003
“The advent of digital technology has dramatically changed routines and practices in most arenas of human work. Advocates of technology in education often envisage similar dramatic changes in the process of teaching and learning. It has become clear, however, that in education the reality has lagged far behind the vision. Why? Part of the problem, we argue, has been a tendency to only look at the technology and not how it is used. Merely introducing technology to the educational process is not enough.”

-Mishra and Koehler, 2006
TPACK

Technological, Pedagogical, Content Knowledge

https://matt-koehler.com/tpack2/tpack-explained/

TPACK Explained
Tech Tool

Teachers are the experts here!

SAMR

THE SAMR MODEL
Dr. Ruben R. Puentedura

S
SUBSTITUTION
Technology acts as a direct substitute, with no functional change

A
AUGMENTATION
Technology acts as a direct substitute, with functional improvement

M
MODIFICATION
Technology allows for significant task redesign

R
REDEFINITION
Technology allows for the creation of new tasks, previously inconceivable

https://www.schrockguide.net/samr.html
SAMR in Action

The SAMR Model

The 4 C’s of 21st Century Skills

1. Critical Thinking
   Finding solutions to problems

2. Creativity
   Thinking outside the box

3. Collaboration
   Working with others

4. Communication
   Conveying ideas

AKA: Learning Skills
SAMR defines the level of TPACK integration in the classroom with **Substitution** being the basic level and **Redefinition** transformative.
“Diffusion is the process by which an innovation is communicated through media over time among members of a social system”.

Everett Rogers

The “Diffusion”

How do you support teachers with the effective integration of technology in the classroom?
“The solution lies in the concentration of the three forces of pedagogy, technology, and change knowledge. If you want to head off destruction, we need to make it all about learning (the pedagogy part), let technology permeate (the technology part), and engage the whole system (the change part). The path to achieve this is by integrating technology, pedagogy and change knowledge.”

Fullan, Stratosphere (2013, p. 74)
Group Trainings

- LBUSD Cloud Initiatives
- G Suite
  - Classroom
  - Docs/Slides/Forms
  - Hands-on activities

Administrators
Site Trainings

- By request - principal completed needs form
- Classroom visits for pedagogical ideas
- Co-planning with site admin/tech lead at site
- Focus on TPACK and 4 Cs
- Differentiated PD
- Follow up with survey and individual needs
- Directed to myPD Self-Paced Learning Opportunities

Teacher Council Meetings

- Elementary and K-8/Middle School
- 3 times a year - half/day
- Focus on TPACK
- Modeled lessons incorporating the 4Cs
- Choice of breakout sessions
- Try lessons between meetings
- Share out what they tried with peers
Collaboration with Curriculum Leaders

- G-Suite training
- TPACK
- Content specific collaborations
- Co-presenting with Curriculum Leaders and Coaches

TPACK Ambassador Training

**Essential Question:** “How can teachers apply the TPACK framework to guide and enhance effective instruction and pedagogy using technology to deepen student learning?”
Tech Ambassadors and TPACK

K-12 Schools

2 Day Training 16 hrs

Planning PD for their Site

Paid

Technical Training

G Suite tools

Adult Learning

TOT Summer Training

52

Planning

● TPACK
  ○ Research
  ○ Resources
● Agenda
● Checklist
● Research
  ○ Adult learning
  ○ Tech Integration

Implementation

● Training decks
  ○ Google Docs
  ○ Google Slides
  ○ Google Forms
● Master Slide Presentation

TOT Resources

Office of Curriculum, Instruction & Professional Development

Tech Ambassadors

and TPACK

Planning

● TPACK
  ○ Research
  ○ Resources
● Agenda
● Checklist
● Research
  ○ Adult learning
  ○ Tech Integration
LBUSD TECH SUMMIT

2018

- Donec risus dolor porta venenatis
- Pharetra luctus felis
- Proin in tellus felis volutpat
- Donec risus dolor porta venenatis
- Pharetra luctus felis
- Proin in tellus felis volutpat

2019

February 2, 2019 (Saturday)
8:00 am -12:30 pm
Location: Millikan High School
Audience: Certificated Staff

myPO Registration Opens: Tuesday, January 8, 2019
Attendees will be paid the Training Stipend Rate!

18 Sessions
- Google Docs, Slides, Forms/Sheets
- Social Media
- Screencasts
- District adopted digital resources
- Google Calendar/Drive

19 Presenters
- Curriculum Leaders
- Curriculum Coaches
- Teachers
- District classified staff

200 Attendees
- Certificated - teachers and administrators
- Classified
Poster Sessions

- Teachers from elementary, middle and high schools
- Showcasing their classroom practices

37 Sessions
- Google Docs, Slides, Forms/Sheets
- Social Media
- Screencasts
- District adopted digital resources
- Coding

37 Presenters
- Curriculum Leaders
- Teachers

400 Attendees
- Teachers
- Administrators
- District leaders

LBUSD Tech Summit 2019
Teacher dedication at its best

Student Volunteers

- High School
- Co-presenting
- Video-taping
Coaching
2017-2020

Coaches assigned to Elementary, Middle, and High Schools

Coaches support tech integration at sites and are not content specific

Schools selected based on need

2017-2020

Coaching Assignments

- 2017-18: 10 schools
- 2018-19: 10 schools
- 2019-20: 9 schools
Delivering Coaching Support

- **Introduction to Site**
  - October

- **Support plan shared with admin**
  - November

- **One on One with teachers**
  - Ongoing

- **Teacher Surveys**
  - October

- **Deliver trainings**
  - Ongoing

- **Data Collection**
  - Ongoing

Site Coaching-Principals’ Technology Network

Cotsen Foundation

FOR THE ART OF TEACHING
Asynchronous Learning

myPD

myPD Systems Map
myPD Strategy: The Art and Science of Personalized Professional Development
Long Beach Unified School District

Step 1 - Create Personalized PD Plan
- Course PD Profile
  - PD Needs
  - Gap Analysis

Step 2 - Develop Multi-Model PD
- Teaching Learning Framework
- Administrative Feedback
- Student Data
- Teacher Inquiry/Literacy

Step 3 - Empower Effective Teachers
- Face-to-Face
- Communities of Practice
- High-Quality Professional Development

Step 4 - Feedback on Implementation
- Peer observation/colleague feedback
- Coaching feedback/observation
- Administrative feedback
- Cooperative inquiry
- Self-reflection/FAARfS
- Student data

myPD - The Art and Science of Personalized Professional Development

Office of Curriculum, Instruction & Professional Development
Moving Forward

- Organizational Support
- Badging
- Exemplars
спасибо  GRACIAS  谢谢  THANK YOU  ありがとう ございました  MERCI  DANKE  धन्यवाद  شُكرًا  OBRIGADO