A Toolkit for Decision Making and Design: TPCK + SAMR

Ruben R. Puentedura, Ph.D.
Pedagogy
Content
Technology
PK CK
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PCK
TPK TCKTPCK

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The Center for Applied Language Acquisition (CARLA) produces information briefs related to adult English Language Learning. These briefs can be downloaded for free by visiting the CARLA挽回 URL.
**Effective Practices**

by Sloan-C

Welcome to the Sloan-C Effective Practices site. To help make quality online education accessible and affordable for anyone, at any time, the Sloan-C community shares technologies, practices and strategies in online education that have worked for them. These practices are peer reviewed to both ensure quality and contribute some documentation for tenure and promotion files.

There are several ways to search for effective practices:

- **Search by Pillar** allows you to search by the five pillars (people, content, delivery, context, technology) that form the building blocks of quality online education – learning effectiveness, scale and access, faculty satisfaction, and student satisfaction – and/or subcategories within them.

- **Search by Context** allows you to search by your perspectives (roles) in online learning, organizational type, or subject area domain, as well as by special cases of online learning (such as online collaboration, or large class size), and/or by subcategories within these.

- **Search by Technology** allows you to search by particular technology categories – audio, video, synchronous, asynchronous, mobile, virtual, and digital resources – and/or by subcategories within them.

- **What’s New** returns the most recent effective practices added to the site.

Every few months we will also feature a collection of effective practices that address a particular issue in online education.
Electromagnetism supercharged!: learning physics with digital simulation games

Source
International Conference on Learning Sciences
Serra Monica, California.
Year of Publication: 2004.

Authors
Kurt Squire
University of Wisconsin-Madison, Madison, WI.

Sponsors
University of California, Los Angeles.
DiMe: Center for Diversity in Mathematics Education.
CCDI: Center for Digital Innovation.
UC ACCORD: University of California All Campus Consortium on research for Diversity.
CST: University of Southern California Center for Scholarly Technology.
CENS: Center for Environmental Networking Systems.

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International Society of the Learning Sciences.

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Pedagogy
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PK
PCK
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TPCK
TCK
TCK
TK

SAMR
Substitution
Tech acts as a direct tool substitute, with no functional change

Augmentation
Tech acts as a direct tool substitute, with functional improvement

Modification
Tech allows for significant task redesign

Redefinition
Tech allows for the creation of new tasks, previously inconceivable

Enhancement

Transformation
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Combining TPCK with SAMR
TPCK - Substitution

Readings
What does it mean to read a text closely and analyze it? Why do we do close reading in literary study? Professor Kelley has developed a guide for students that answers these questions and assists students as they read the course texts.

Below are the readings for the course by author, along with supplementary Web sites for each author. Many of the required readings may be downloaded from the Project Gutenberg Web site. See the calendar for readings due each class session.

Jane Austen
Required Readings
Austen, Jane. Northanger Abbey. [Download from Project Gutenberg]
Supplementary Material
Jane Austen Society of North America
The Sensibilities of Northanger - A site on Austen and literary influences. A number of links.
Literary Classics in Austen
Voice of the Shuttle Gothic Literature page
The Northanger Canoe - Isabella Thorpe's "horrid" novels and others.

Mary Shelley
Required Readings
Shelley, Mary. Frankenstein. [Download from Project Gutenberg]
Supplementary Material
The Plot of Frankenstein - A link to electronic texts of Shelley's Frankenstein.
Barnes & Noble Cliffs Notes - Links to chronologies, essays.

TPCK - Augmentation

Return to Syllabus

Introduction to Statistics - Open and Free (Excel Version)
https://all-web.cmu.edu/courses/workbook/activity/page?homemenu=137c7f80b128e46013bh38c65682e&view=41

Histogram

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TPCK - Modification

Southern History Database

Go to year: 1810 | 1820 | 1830 | 1840 | 1850 | 1860 | 1870 | 1880 | 1890

1810 All Keywords

Tools

Number of Events

TPCK - Redefinition

El Señor Presidente - Wikipedia, the free encyclopedia

El Señor Presidente (The President) is a 1946 novel written in Spanish by Nobel Prize-winning Guatemalan writer and diplomat Miguel Ángel Asturias (1899 – 1974). A landmark text in Latin American literature, El Señor Presidente explores the nature of political dictatorship and its effects on society. Asturias makes early use of a literary technique now known as magic realism. One of the most notable works of the dictator novel genre, El Señor Presidente developed from earlier Asturias short story, written to portray social injustice in the aftermath of a devastating earthquake in the author’s home town.

Although El Señor Presidente does not explicitly identify its setting as early twentieth-century Guatemala, the novel’s title character was inspired by the 1928–1932 presidency of Manuel Estrada Cabrera. Asturias began writing the novel in the 1930s and finished it in 1933, but the strict censorship policies of Guatemalan dictatorial governments delayed its publication for thirteen years.

The character of the President rarely appears in the story but Asturias creates a number of other characters to show the terrible effects of living under a dictatorship. His use of dream imagery, onomatopoeia, simile, and repetition of particular phrases, combined with a discontinuous structure, which consists of abrupt changes of style and viewpoint, springs from surrealism and ultravitold influences. The style of El Señor Presidente influenced a generation of Latin American authors. The themes of Asturias’s novel, such as the inability to tell reality apart from dreams, the power of the written word in the hands of authorities, and the alienation produced by tyranny, center around the experience of living under a dictatorship.

On its eventual publication in Mexico in 1946, El Señor Presidente quickly met with critical acclaim. In 1967, Asturias received the Nobel Prize in Literature for his entire body of work. This international acknowledgment was celebrated throughout Latin America, where it was seen as a recognition of the region’s literature as a whole. Since then, El Señor Presidente has been adapted for the screen and theater.
Guiding Questions - TK

- Are the technology tools being used suitable for working on all levels of the SAMR model, or are they constrained in this regard?

- Is the use being made of the technology at the S/A, or M/R levels of the model?

- Are the technology tools well-suited to the task at hand, or are there other choices that would either fit the task better, or allow for greater flexibility in exploring all levels of the SAMR model?
Guiding Questions - TPCK

• Is the activity as described essentially analogous to a traditional learning activity (S/A), or does it present substantial transformations from it (M/R)?

• Is the activity essentially limited to itself in potential scope, or does it open paths for other future activities to build upon it?

• How could the activity accommodate modification or addition (including tool choice and use) in order to take the overall result to the next SAMR level?
• The TPCK Model:
  • TPCK - Technological Pedagogical Content Knowledge
  • AACTE (Eds.) The Handbook of Technological Pedagogical Content Knowledge for Educators. New York: Routledge, 2008.

• The SAMR Model:
  • Ruben R. Puentedura. Transformation, Technology, and Education. (2006) Online at:
    http://hippasus.com/resources/tte/

• PK Example:
    http://www.nap.edu/openbook.php?record_id=6160

• CK Example:
  • Institute of Historical Research - Reviews in History
    http://www.history.ac.uk/reviews/

• PCK Example:
  • Center for Applied Linguistics - CALdigests
    http://www.cal.org/resources/digest/index.html
• TK Example:
  • *EDUCAUSE Learning Initiative - 7 Things You Should Know About…*
    http://www.educause.edu/7495&bhcp=1

• TPK Example:
  • *The Sloan Consortium - Effective Practices*
    http://www.sloanconsortium.org/effective/index.asp

• TCK Example:
  • *VisualComplexity*
    http://www.visualcomplexity.com/vc/

• TPCK Example:
    http://portal.acm.org/citation.cfm?id=1149126.1149189

• SAMR Examples:
  • *The Tragedy of Macbeth (text hosted at MIT)*
    http://shakespeare.mit.edu/macbeth/index.html
  • *Flickr Shakespeare Group*
    http://www.flickr.com/groups/shakespeare/
  • *Many Eyes*
    http://services.alphaworks.ibm.com/manyeyes/home
  • *UpStage*
    http://upstage.org.nz/blog/?page_id=2
  • *Macbeth in Second Life*
    http://www.youtube.com/watch?v=cicIpd1Xp3A
• **TPCK+SAMR Examples:**
  
  • Prof. Wyn Kelley: *MIT OpenCourseWare - 21L.003 Introduction to Fiction*
    
    http://ocw.mit.edu/OcwWeb/Literature/21L-003Fall2003/CourseHome/index.htm
  
  • Prof. Oded Meyer: *Carnegie Mellon Open Learning Initiative - Introduction to Statistics*
    
    https://oli.web.cmu.edu/jcourse/webui/guest/look.do?section=stats-excel
  
  • Prof. Edward L. Ayers: *Virginia Center for Digital History at the University of Virginia - The Rise and Fall of the Slave South*
    
    http://www.vcdh.virginia.edu/HIUS323/
  
  • Prof. Jon Beasley-Murray: *University of British Columbia - Murder, Madness, and Mayhem: Latin American Literature in Translation*
    

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