The iPad and Research Design
(Data / Research Sessions I, II, III)

Ruben R. Puentedura, Ph.D.
Part I: This Is Not A Laptop
Three Key Characteristics of Mobile Devices

• Ubiquity

• Intimacy

• Embeddedness
Two Key Metaphors

• The Lively Sketchbook

• The Curiosity Amplifier
My name is Robert Miller. I was born in Chicago.
My favorite color is blue. I like ice cream and pizza.
My favorite coffee is Starbucks. I like to read. I read news articles and books. My favorite book is 'To Kill a Mockingbird'.

Les Deux Magots

A Moveable Feast
Ernest Hemingway
• General Search
• Media Search and Identification
• Lifestyle Search
• Social Network Participation
• News
• Books
• Augmented Reality
"Critical Pessimism" Revisited: An Open Letter to Adam Fish

Matthew Edney, who describes himself as "a British-born academic who, 27 years after first arrival, is linguistically located somewhere in the general confusion of the mid-Atlantic", sent me an interesting query about the history of English spelling. Since I know almost nothing about this subject, I'm forwarding the question to EL readers, who are likely among them to have the answers, or at least some useful observations.


Don't try this at home

New app visualises your vehicle and driving activity

Since 1996 cars have been built with on-board computers to capture and store a wide range of diagnostic and ...
Part II: Research Is Design Is Research
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

Podcasts on iTunes U: http://tinyurl.com/aswemayteach
Marzano:
Six Steps to Effective Vocabulary Instruction

• Step 1: The Teacher Provides a Description, Explanation, or Example of the New Term

• Step 2: Students Restate the Explanation of the New Term in Their Own Words

• Step 3: Students Create a Nonlinguistic Representation of the Term

• Step 4: Students Periodically Do Activities That Help Them Add to Their Knowledge of Vocabulary Terms

• Step 5: Periodically Students Are Asked to Discuss the Terms with One Another

• Step 6: Periodically Students Are Involved in Games That Allow Them to Play with the Terms

A SAMR Ladder for AAC

Substitution

Modification

Augmentation

Redefinition
Pedagogy

Content

Technology

PK

PCK

TPCK

TPK

TK

CK

TCK
Part III: The Goal
Seymour Papert: Four Expectations

• **Expectation 1:** the scholastically unsuccessful group among the students will advance by several grade levels on standard achievement tests in mathematics and language. We shall, of course, confirm the significance of any such observation by comparison with a control group matched on a series of variables set up before the outset of the experiment.

• **Expectation 2:** observers will agree that the student in the experiment not only learned more than in a traditional class, but learned it in a more articulate, richer, more integrated way.

• **Expectation 3:** students will develop, or adapt concepts and metaphors derived from computers and use them not only as intellectual tools in the construction of models of such things as "number" and "theory" but also in elaborating models of their own cognitive processes. This will in turn have an impact on their styles of learning and problem-solving.

• **Expectation 4:** the use of computer metaphors by children will have effects beyond what is normally classed as "cognitive skill". We expect it will influence their language, imagery, games, social interactions, relationships, etc…
Additional Resources
Resources – Part I

Defining Mobile Devices/The Lively Sketchbook

The Curiosity Amplifier
Resources – Parts II and III

SAMR and TPCK:

- AACTE (Eds.) _The Handbook of Technological Pedagogical Content Knowledge for Educators_. New York: Routledge, 2008.

The Goal:

Photo Credits

• *iPad in Subway*: Takashi M

• *YouTube + iPad + Hanalei = Happiness*: Wayan Vota

• *Parcours-jeu multimedia : Les métiers du musée*: Jean-Pierre Dalbéra

• *Les Deux Magots*: Robyn Lee

• *Vladimir Nabokov at work*: Carl Mydans
Hippasus

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