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Working Connections
IT Conference

Empowering communities, organizations and individuals through information technology.

Working Connections Fellowship Recipient Report
June 11th-15th, 2012
By Adam Coleman, IT & Networking Faculty, Clark College

What You Can Learn About: Problem-Based Learning (PBL) & Windows 8

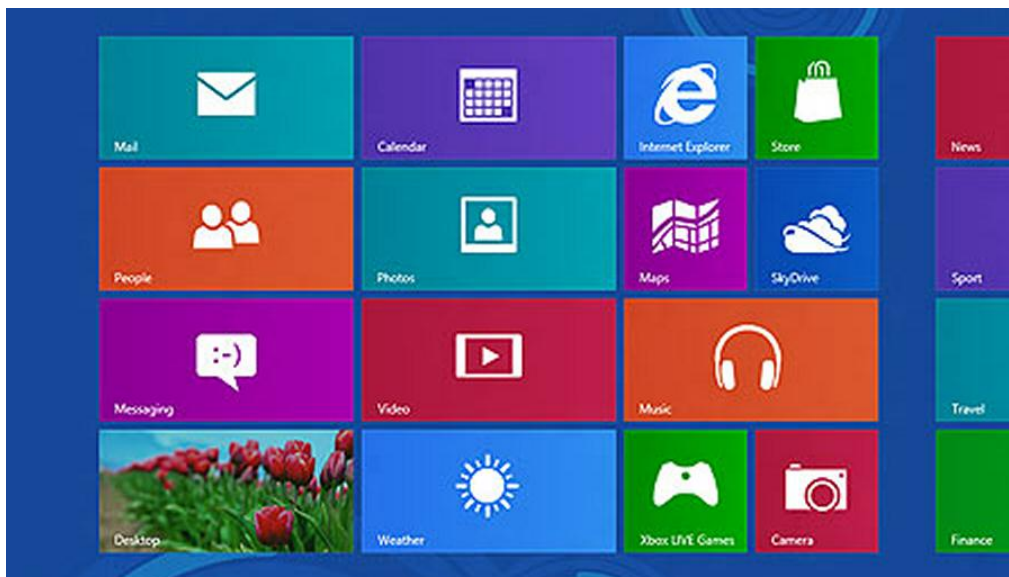


Table of Contents

Report / Notes Preface 3

 Name..... 3

 Subjects taught 3

 Practices developed, implementations and changes as a result of the training 3

Working connections conference 4

Session 1- VMware Computing in post Windows PC era..... 4

Session 2- Introduction to problem based learning 5

 LJB Networking - Lesson Plan..... 11

 Objective 11

 Before you begin..... 11

 Problem Statement..... 11

 Resources 11

 Deliverables..... 12

 Customers base..... 12

 Insert Rubric here 13

 Insert Evaluation here..... 13

Session 3 - Delve into 2012: Windows 8, Tablets & Office 15 14

 Windows 8 14

 Office 2012..... 19

 Office 365..... 20

Report / Notes Preface

Name

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Subjects taught

Introduction to Computing
Computer Essentials
Introduction to Windows
Command line essentials for Windows and UNIX
Introduction to Local Area Networks
Cisco CCNA 1: Network Fundamentals
CompTIA A+ computer support technician

Practices developed, implementations and changes as a result of the training

1. LJB Lesson Plan - see page 10
 - a. This Problems Based Learning Plan (PBLP) can be used in both the *Introduction to Local Area Networks* and the *Cisco CCNA 1: Network Fundamentals* class. More customer based scenarios can be used to expand on the design.
 - b. Note that this is a work in progress. A rubric coupled with a student self and team evaluation can be used to assess if the outcomes meet the class and program objectives.
2. I will be developing more PBLPs throughout my curriculum.
 - a. Specifically, this summer quarter 2012 I will be teaching *Command Line Essentials for Windows and UNIX*.
 - b. This will be a great opportunity to utilize the tools learned at the Working Connections Conference.
3. Knowing more about Windows 8 can make a huge difference to the way we teach the Windows operating system.
 - a. Windows 8 is a complete change in the way we use computers today.
 - b. The new interface can be intimidating to new and old users alike.
 - c. I have not seen changes like this sense computers were updated from Windows 3.11 to Windows 95.
 - d. The look and feel of this new technology is radically different.
 - e. Navigation will be challenging for all users.
 - f. File management may become obsolete with the new searching capabilities.
 - g. There will be a huge learning curve and I look forward to being able to train students and perhaps faculty on how to use this new technology.

Working connections conference

55+ people attended

Session 1- VMware Computing in post Windows PC era

1. Opening speaker - Rick Watson - lots of certs
2. MS, Novel, VM-Ware certified
3. 2011 -50% not using Windows
4. 2020 - 10% using windows
5. VMwares vision in the future
 - i. To simplify - use cloud (VMware)
 - ii. Have a consistent experience
6. Steps to get there
 - i. Improve what you have now
 - ii. Embrace the Cloud
 - iii. (example) personal phone and work phone in one device (Horizon)
 - iv. Escape to the cloud
 1. Project AppBlast (using browser w/HTML 5)
 2. Don't need Windows device
 3. Project Octopus (sync data with any device w/collaboration)
7. vSphere Virtualization
 - i. Foundation to Cloud
 - ii. Layers
 1. Apps
 2. vSphere - virtual hardware (guest machine with it's own OS)
 - a. Allocate its own resources (RAM, cores etc.)
 - b. Can move from one system to another (vMotion)
 - c. Hardware (physical hardware)
 3. Desktop operations - move into the cloud
 - a. Allows organization to control desktop
 - b. User can use any hardware (phone, tablet, laptop)
 - c. Consistency for the end user using Mac, Android,Win
 - iii. PCoIP – protocol
 1. Visual PC codec
 2. Linked clones - cuts storage capabilities using multiple linked clones
 3. Application virtualization
 - a. ThinApp
 - i. Set to access or not access registry, hard drive etc.
 - ii. Uses a virtual registry
 4. Can be deployed by CD, thumb drive or hard drive (no thin client)

Session 2- Introduction to problem based learning

- i. Instructor - John Magill -
 1. (no handouts, no PowerPoint, no resources)
- ii. How to get to know each other
 1. List of likes, dislikes
 2. Bingo red car, blue car
 3. Intro to others w/ questions - scavenger hunt
 4. Name and positive attribute using first letter of their name (ex Amazing Adam)
 5. Repeat names throughout the line (telephone)
- iii. It all starts with what I want!
2. Preparing for the future - kids with smart phone, iPads, tablets
3. What are employees looking for?
 - i. Be on time / responsible
 - ii. Collaborate / team work *
 - iii. Problem solve *
 - iv. Independent thinking / critical thinking / self directed learning *
 - v. Taking ownership
 - vi. Ethics
 - vii. Service learning
 - viii. Experimental learning

* IMPORTANT stuff
4. YouTube videos / resources
 1. [Stuck on an elevator](#)
 2. [Bad seating in Men in Black](#)
 3. John Bransford - how do people Learn **
 4. [ABC nightline - the deep drive](#)
 - i. Open mind
 - ii. Innovative
 - iii. Hard work
 - iv. Encouraging
 - v. Find an expert - not your own experience
 - vi. Think broadly about the design
 - vii. The bosses don't know everything
 - viii. Students don't know how to problem solve
5. Teach how to solve their problems
 1. If I haven't frustrated you, I'm not doing my job
 2. Teach outside the box - lateral thinking
 3. Get people to collaborate
 - i. Synergy
 - ii. Get the best ideas

- iii. Work together
- iv. M & Ms used in team work - best guesstimate then average for all the teams
- v. Is close good enough?
- vi. Problem solving
- vii. Independent thinking / self directed learning **

6. Assessments

- 1. 12 minute assessment
- 2. What is unclear
- 3. Discuss with teams than with the whole class
- 4. Check others experience
- 5. Interpret and apply
- 6. What you learn is based on what you know
- 7. How do we get them to take the blinders off
- 8. Metacognition (thinking about thinking)

7. What is a problem base learning?

- 1. Present students with real world problem
- 2. Make it a messy problem - there is no single answer
- 3. Use teamwork to solve the problem
- 4. How to run teams (example)
 - i. Mix up teams
 - ii. Use finger method to pick a leader - point at leader
 - iii. Leader makes sure everyone knows the problem
 - iv. leader picks a recorder
 - v. Recorder records teams answers
 - vi. Recorder selects a presenter
 - vii. Presenter works with other teams to document on board
 - viii. Teams working with teams
 - ix. Final presenter presents to the class

8. Learning continuum (start to finish, easiest to hardest -not necessarily correct)

- 1. Learning
- 2. Individual
- 3. Observation
- 4. Presentations
- 5. Peer review
- 6. Hands on
- 7. Roll playing
- 8. Simulations
- 9. Case problems applications
- 10. Team workJob (OJT)

*Reflection/ wake up with solution (happens throughout the whole process)

9. Students journal about their learning process
 1. Can be a word document
 2. What did you learn?
 3. Don't just repeat what the lesson was
 4. What was a surprise?
 5. What did you find out about yourself?
 6. Think about the learning (metacognition)
 7. How are you thinking?
 8. Have a peer evaluation - people need to work together

10. Assessing teamwork
 1. Look at effectiveness
 2. Can people support their own ideas
 3. Are they effective in the group
 4. Are they appropriate
 5. What is something this person did to help my learning?
 6. What did the student do that didn't work?

11. NEED TO KNOW BOARD

1. Process
2. Frame analysis
3. Chart design:

Facts	Assumptions	Questions	Resources

12. Field insights –JIT

1. communication - multiple people working together
2. test solutions
3. deliverable

NOTE this is a circular process

13. What is a problem and how in depth does it need to be?

1. The problem does not need to be a major problem
2. Need a clear deliverable
3. Bring a real problem and the students will get invested into it
4. Get a real connection with real data
5. Present it properly and get the students involved

14. Differences of:

1. Case base learning - give students case, they need to come up with a method to solve
 - i. teacher gives up control
 - ii. end result works

2. Problem based case learning - directed by teacher to present the case & have students solve
 - i. have more control
 - ii. difficult to share
 - iii. personalized
 - iv. geared with what your familiar with
 - v. have a real business problem
3. Scenario base problem solving (same as case based but give the students a specific scenario)
 - i. easier to share
 - ii. more mapped out
 - iii. end result is more deliverable
 - iv. you work for the business, do it!
4. Team selection
 - i. Random
 - ii. Select specific persons
 - iii. Avoid conflict
 - iv. Content knowledge
 - v. Create equal groups - in case of no shows
 - vi. Size depends on complexity

Homework - think about a course and an objective and a business that the objective can be used in. Make it as real as possible

=====

6/12-12

Working connections day 2

Video – RSanimate – changing education paradigms Sir Ken Robinson

<http://www.youtube.com/watch?v=zDZFcDGpL4U>

1. Main points of video
 - a. Break out of the teaching shell – our old ways
 - b. Adapt teaching styles
 - c. Change is necessary
 - d. Setting the stage where students want to learn
 - e. Perhaps we need a good mix
 - f. Let students use the modern tools that they have – use technology to learn

2. Is Problem Based Learning (PBL) a solution?
 - a. Yes
 - i. Goals need to be clear
 - ii. incorporate collaboration
 - iii. incorporate thinking
 - iv. Still have outcomes that need to be achieved
 - b. Basics are still needed
 - i. Reading
 - ii. Mathematics

3. Features of PBL

Objectives	Case	Scenario
Problem	Student finds resources	Resources
Insights		
Deliverables		

4. Went over projects and objectives in teams
 - a. Updating Networking class to include home networking
 - i. Security
 - ii. No hacking agreement
 - iii. Software needed
 - iv. Hardware needed
 - v. Business vs. home computing
 - vi. Accessories
 1. Wireless printer
 2. iPads
 3. Cell phones
 4. PCs

5. Web sites for Problem Based Learning
 - a. <http://www.makinglearningreal.org/index.html>
 - b. <http://learnpbl.com/>
 - i. Tools
 - ii. Scenarios
 - iii. Resources
 - c. <https://sites.google.com/site/naluhouoss/>
 - i. NaluHou Consulting example site

6. What is wanted
 - a. Deliverables
 - i. Objective
 1. Really need to know
 - ii. Problem Statement

- b. Optional
 - i. Field Insights – Other information students need to know
 - ii. Resources
 - iii. Deliverables
 - iv. Rubric
- c. Timeline
 - i. Research
 - ii. Refine with group help
 - iii. Present critique
 - iv. End

LJB Networking - Lesson Plan [®]

Be careful, we byte!

Welcome to LJB Networking[®]. You will be working with customers that have little or no networking experience. Your job is critical to the success of our company. For that reason we expect your work to be complete and professional. As an initial intern you will be working with field officers that have been certified for decades. The first part of the internship assignment is to learn about home networking devices. Know all the intricacies of devices such as routers, switches and cabling. Later interns will install, configure, test, repair, demonstrate and document all aspects of home networking. Take pride that your work for the premier networking company in all of North American.

Objective

Create a proposal and document a home networking system. Customers will be using multiple clients including but not limited to laptops, iPads, iPhones and PC workstations. Present the project to the customer.

Before you begin

It is imperative that you comply with company policies. Be aware that you will not be paid for any time you put into work on the next task before you have received feedback on the previous task. You will be working in individual projects and in teams.

Problem Statement

People have trouble setting up all their new digital devices to interact with their home networks. LJB Networking[®] is dedicated to providing superior service to home users that are technically challenged with today's ever changing technology. Every aspect of home networking is taken into consideration. Security, hardware, software, file sharing, and cabling are just a few of the items that are scrutinized to ensure complete customer satisfaction. We will take care of everything so the customer doesn't have to worry about a thing.

Resources

1. Interview the customer to find out what they actually have and want.
2. Vendor's web sites can be used at any time. Look for manuals and FAQs that will help installing and configuring the network devices
3. Interview friends, family and fellow workers on networking technologies
4. New material will be added to the Orientation discussion log on the company web site (LMS). It will be in your best interest to check this site regularly.
5. Should you have any concerns or questions, contact the Project Manager.
6. Your teammates can be very helpful. Don't be afraid of asking for help.
7. Interview the Project Manager at New Edge for more insight.

Deliverables

1. Interview (Brainstorm – fishbone diagram) the customer to find their needs.
2. Investigate the cost and features of the networking equipment.
3. Come up with a list of services that you believe would be beneficial to the customer.
4. Compare and contrast different vendor's equipment.
5. Create a Gantt chart that shows how long the project will take.
6. Create and present an RFP for the customer.
7. Revise RFP based on customer feedback.
 - a. Iterate as necessary
8. Create professional diagrams of the physical and logical network.
9. Provide documentation of every aspect of the project to the Project Manager and the customer once the project is complete.
10. Present a PowerPoint presentation to the class for evaluation

Customers base

Note teams consist of 3 or 4 people

1. Team leader
2. Secretary
3. Presenter
4. Other

Customer 1

1. Older couple with 2 PCs
2. It's difficult to walk up and down stairs so the printer should be easy to get to.
3. May be updating their old Windows 95 machine
4. Currently use AOL dialup network to access the Internet due to limited income

Customer 2

1. Serious gamer home that frequently has LAN parties up to 15 people
2. Many players bring in their laptops to play
3. Just moved into the house and have no ISP

Customer 3

1. Mom stays at home
2. Dad is a doctor at the local hospital
3. Two school children ages 14 and 17
4. Dad accesses patients files from time to time

Customer 4

1. 2 younger couples that are living together to save on rent
2. All younger than 23 years old
3. First couple likes to stay at home and watch movies and listen to music
4. Second couple creates web pages and play games all the time

Insert Rubric here

Insert Evaluation here

Session 3 - Delve into 2012: Windows 8, Tablets & Office 15

Instructor: Connie Hoisington – Central Virginia Community College

Email: hoisingtonc@cvcc.vccs.edu

Shared files: <http://tinyurl.com/7qx4a29>

Windows 8

1. Windows 8
 - a. Scheduled to come out October 2012
 - b. Third year rule -
 - c. No icons
 - d. No start buttons
 - e. File structure different – almost nonexistent
 - f. Different functionality
 - g. Windows 8 slate (tablet)
 - h. Some mouse and keyboard, some on a touch slate
 - i. New terms / specs
 - i. Touch centric
 1. It works best with touch
 2. Works good with mouse and keyboard
 3. Windows Metro
 - a. Clean user interface
 - b. No controls on the screen
 - i. No tool bar, no scroll bar
 - ii. Tools show up when you need them
 - iii. Scroll up and down -not side by side
 1. Devices are changing
 4. Tiles are tied to apps which are linked to Metro
 5. Windows to go - Windows on a Flash drive
 - a. Need 16 gig to use it
 - ii. Specs
 1. One gig off RAM needed to run Win8
 - a. Can use for Win phone – make it light
 2. Drastic design change
 3. Picture passwords
 - a. Uses gestures
 - i. 3 required gestures
 - ii. Tap base or swipe base

4. Log into a skydrive
 - a. Same experience on ALL PCs
 - i. Apps
 - ii. Files
 - iii. Photos
 - iv. Portable workspace
 - v. Windows to go
 1. Bootable 16GB + USB drive
 2. USB Boots to Win8
 - a. Win disc image
 - b. Win Automated Installation Kit
 - vi. Thumbs keyboard – one the sides
 5. Windows Metro
- iii. 4 versions
 1. Enterprise – server side
 2. Win 8 (98% the same)
 3. Win 8 Pro 98% (the same)
 4. Win RT - Run time
 - a. Running on an ARM chip
 - i. Mobil devices
 - ii. Under 4 pounds
 - iii. Needs / should to be touch device
 - iv. Smaller system
 - v. Doesn't use a lot of power
 - vi. Primarily touch based
- iv. Videos
 1. [Get to know the Samsung SKLATE PC Series 7 on youtube.com](#) - ~\$1000
 2. [Dell Duo](#) - \$399
 3. [Asus taichi](#) - \$600
 4. [ultrabook asus ux21](#) - \$700
 5. [Augmented auto glass](#)
 6. [productivity future vision 2011](#)
 7. [productivity future vision 2011](#)
- v. Metro based applications
 1. Uses tiles not icons
 2. Navigational tiles (right click)
 3. Uses Geosocial location awareness
 - a. Found in Privacy under PC settings
 4. Pinning apps

vi. Possible teaching order / Functionality

1. Login
2. Look at Weather App
 - a. Uses Geosocial location awareness
3. Navigation
 - a. Start menu
 - i. Absolute bottom left corner
 - ii. Flying windows button on keyboard
 - iii. Use the Charm
4. Absolute left top corner - app switching (Alt + Tab like)
5. Absolute right bottom corner shows "Charms"
 - a. Search
 - i. Searches everything
 1. Files
 2. Apps
 3. Facebook
 4. Apps
 5. The Internet
 - b. Share
 - i. No more attachments
 - ii. Can send though facebook, email, sharing etc.
 - iii. Use charm
 1. Can send portions of web page
 2. Can send whole web page or web site
 - c. Start - go to the start menu
 - d. Devices
 - e. Setting
 - i. Set up password
 1. Characters
 2. Picture password - difficult to crack
 - a. 3 gestures
 - b. Tap or swipe
 - i. Swipe can be right to left, right to left, circles etc.
 - ii. Don't get to involved

6. Programming Applications

- a. Create in VB or C sharp
 - i. Can sell in MS store
 - 1. You get 70%
 - 2. Microsoft gets some
 - 3. Verizon (or others) gets 5%
 - ii. Most of Microsoft's money is selling office for now
 - 1. Microsoft will be giving it away and making \$ on your apps
 - iii. Max size 50 meg

7. Navigation

- a. Go to Start screen
- b. Go to all apps
 - i. Top left click
 - 1. Get to tray - kind of difficult to get to
 - a. These are live apps
- c. Don't need to close all programs
 - i. Vista uses 800 megs to run 800 processes
 - ii. Win 7 uses 400 meg to run 400 processes
 - iii. Win 8 uses 240 meg to run 24 processes
 - iv. Grab and throw down to close program

8. Internet Explorer

- a. 2 different Internet Explorers
 - i. One in Win 8
 - ii. One in "Desktop" - used for legacy systems
- b. Uses an onmibar
 - i. Good for web sites and just searching
 - ii. Chromeless

9. Apps

- a. Go to shopping tile (suggested apps)
 - i. Cut the rope
 - ii. Ever note
 - iii. Nature space
- b. Have students find an app then demo in class
 - i. Put name on board so there is no duplicate

- c. Change user options
 - i. Right click on picture on top right
 - ii. Select change account picture
 - 1. Personalize
 - 2. Users
 - 3. Notifications - turn off when doing presentations
 - a. News
 - b. Emails
 - c. Calendar
 - d. messaging
 - e. etc
 - 4. Search
 - 5. Share
 - 6. General
 - 7. privacy
 - a. Uses Geosocial location awareness
 - 8. Devices
 - a. Recognizes all devices
 - i. iPhone
 - ii. Android
 - iii. etc
 - 9. Ease of access
 - a. 508 standards
 - b. ADA compliant
 - c. Use for the phone - mobile devices
 - i. Make everything bigger
 - 10. Sync your settings
 - a. Syncing with multiple devices
 - 11. Home group
 - a. Share homegroup devices
 - b. Peer to peer networking
 - 12. Windows updates
- vii. Charm - Settings - Tiles -
 - 1. Show Admin tools - yes/no
- viii. What about cost
 - 1. Pay of data plans
 - a. 2,4,8,16 gig
 - i. Come up with teared data plans
 - b. Phones will be cheaper
 - c. Video - go to Video app

Office 2012

2. Microsoft Office 2012 (Version #15)
 - a. Compatible with iPad
 - i. App \$9.95
 - b. New slate computers will have MS office installed
 - c. Use templates from the cloud rather than create from scratch
 - d. By default ribbon is closed – leaves more room, (more real-estate)
 - i. Ribbon is redesigned for easier access to touch - smaller ribbon
 - ii. Ribbons now have new / more ribbon tabs
 - e. Word
 - i. Open and change .pdf files with Word
 - ii. Resume reading
 1. A bookmark where I left off with notes
 - iii. All collaborative tools (Facebook, Skype, etc.) right in office
 - iv. Save as
 1. First location SkyDrive
 2. Other web locations (FTP location)
 3. Shared network locations
 4. Other options
 5. Audio / visual put straight into the document
 6. Broadcast of Documents on the web, such as PowerPoint
 - f. Excel
 - i. Timeline filtering data tool
 - ii. New dialog box for entering the charts
 - iii. Import data via Atom feed
 - iv. New features - convert Roman numerals to Arabic numerals
 - v. Advance trig features
 - vi. New Metro interface - Ribbons closed by default
 - g. PowerPoint
 - i. Different aspect ratios
 1. 16:9 for new HDMI based machines
 2. If you have 2 screens you can show the presentation on screen 1
 3. Notes on screen 2
 - h. Access
 - i. Not to many changes yet
 - i. Moorea inside one-note
 - i. Everything you need in one place
 - ii. Use pictures to use in PowerPoint, Word
 - iii. Create collage
 - iv. Put any sort of documents with video

- j. Visio
 - i. Touch effect
 - ii. Touch and it creates a perfect drawing

Office 365

- k. [Office 365](#)
 - i. Subscription based Office
 - ii. Not for an individual
 - 1. Business
 - 2. Campus
 - iii. Easiest way to work together
 - iv. Not installed on a single machine
 - v. Cost current about \$25 per machine
 - vi. Cost for Office 365 is 0.50 per month per user
 - vii. With Office 356
 - 1. Good on any machine through a browser
 - a. School
 - b. Business
 - c. Home
 - 2. Access to the full Office Suite
 - 3. Always have updates
 - 4. IT doesn't have to configure
 - 5. Prevent Piracy
 - 6. Constant updates (Daily)
 - 7. Can still save locally
 - 8. Students can share with teachers
 - 9. All dependent on an Internet connection
 - viii. [Online desktop](#)
 - 1. MS Office for the iPad
 - 2. Need to set up an account first
- l. Other cool sites
 - i. [redlaser.com](#) - reads QR (Quick Response) codes
 - ii. [QRstuff.com](#)
 - iii. [QRcodes.com](#)

NOTE: This would make a great classroom project. Place QR codes around the college and have a scavenger hunt. Give the students clues or definitions to help them reach the end.