Training and Developing IT Staff

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What type of issues are you facing?

- High turnover?
- Reduced head-count?
- Hero mentality?
- Keeping up with technology?
- Adapting to a service mindset?

Agenda

- A little background . . .
- How DO we learn? Why do I care?
- What skills are necessary in today's IT organizations?
- Building a training program . . .
  - For your group
  - For an individual
- Measuring Success
- Wrap it up!

A little background . . .

- Job Experiences

- Industry involvement

- Life experiences

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Learning Styles

The way in which we view the world is called our . . .

Perception

We perceive in two ways . . .

Concrete **Abstract**

The way we use the information we perceive is called . . .

Ordering

We order in two ways . . .

Sequential **Random**

Four Combinations

Concrete Sequential Hardworking, conventional, accurate, stable, dependable, consistent, factual, organized	**Abstract Sequential** Analytic, objective, knowledgeable, thorough, structured, logical, deliberate, systematic
Abstract Random Sensitive, compassionate, perceptive, imaginative, idealistic, sentimental, spontaneous, flexible	**Concrete Random** Quick, intuitive, curious, realistic, creative, innovative, instinctive, adventurous

What do they do best?

Concrete Sequential	Abstract Sequential
• Organize • Fine tune ideas • Produce products from abstract ideas	• Gather data before making decisions • Analyze ideas, research • Use facts to prove theories
Abstract Random	**Concrete Random**
• Listen sincerely to others • Focus on themes / ideas • Bring harmony to group situations	• Inspire others to take action • Visualize the future • Think fast on their feet • Take risks

What's hard for them?

Concrete Sequential	Abstract Sequential
• Working in groups • Discussion with no specific point • Following incomplete or unclear directions	• Repeating the same tasks over and over • Being diplomatic when convincing someone else of their point of view.
Abstract Random	**Concrete Random**
• Competition • Working with unfriendly people • Accepting even positive criticism	• Formal reports • Keeping detailed records • Having no options

What questions do they ask when learning?

Concrete Sequential	**Abstract Sequential**
• What facts do I need? • How do I do it? • What should it look like? • When is it due?	• How do I know this is true? • Have we considered all the possibilities? • What will we need to accomplish this?
Abstract Random	**Concrete Random**
• What does this have to do with me? • How can I make a difference?	• How much of this is really necessary?

Why do I care?

- Learning how to recognize and appreciate learning styles can help you identify natural strengths and tendencies each individual possesses.
- A great team is one that has members from each of these areas!

Types of Learning

- Three types of learning
  - **Cognitive**: mental skills (*Knowledge*)
    - Knowledge, comprehension, application, analysis, synthesis, evaluation
  - **Affective**: growth in feelings or emotions (*Attitude*)
    - Receiving phenomena, responding to phenomena, valuing, organization, internalizing values
  - **Psychomotor**: manual or physical skills (*Skills*)
    - Perception, Set, Guided response, mechanism, complex overt response, adaptation, origination

How do we gather information?

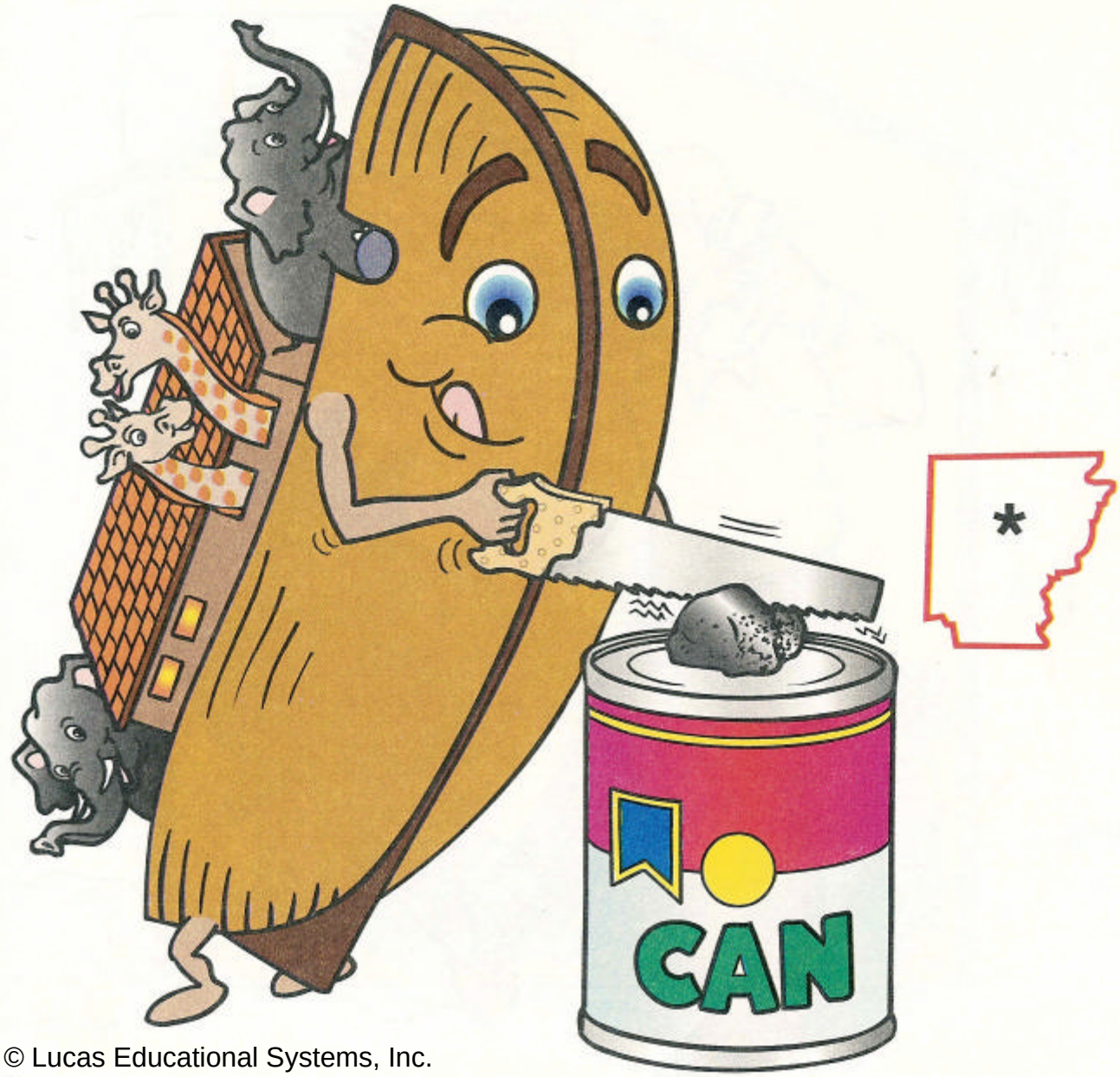
- Visual, Auditory, and Kinesthetic
  - Lookers - Rely on the sense of sight
  - Listeners - Prefer sounds and words
  - Movers - Hands on learning through both touch and movement

How do we retain information?

- Get, Learn, and Use information
  - See, Recognize, Register, Retrieve, Knowledge
- Move from the “stone age tool” of repetition to becoming a “Master Mind Mechanic” who can analyze, attack, and solve any learning problem.
  - The Link, Anagram, Sound-Alike Word, Consonant, Peg Word, 200 Word Locator, Look-Alike, and Substitute Systems

Arkansas
Ark-Can-Saw

Little Rock
Little Rock



Washington
George Washington

Olympia
Olympics-Uh

How do you get the best results?

- The best results some from a combined delivery of multiple sensory sources –
  - Tell me the information as I read it on a handout/slide,
  - allow me to “experience” the skill physically,
  - let me tell it back to you.
- Minimize the number of students per teacher.
- Personalize the experience.

Guidelines for Training

- Observe – patterns of behavior.
- Listen – to the way a person communicates.
- Experiment – with what works and what doesn't.
- Focus – on natural strengths, not weaknesses.
- Learn – about learning styles in general.

Break!

Skills needed in today's IT organization

- Technical competence
  - Desktop, server, networks, storage, database, applications
- Project / Process methodology
  - PMI, ITIL, Six Sigma, SOX
- General industry knowledge
  - Industry standards and user group activities
- Soft skills
  - Attitude, communication, teaming

Building a training program for your group . . .

- Do you follow a Level 1 / 2 / 3 methodology for responding to requests?
- Do you leverage a knowledge database?
- Clearly define the breadth and depth of skills needed by role.
- Develop both strategic and tactical plan.
- Map out your requirements.

Product Training

Web-based

PROD 101
Provide basic knowledge of the product

Web-based

GEN 001
Basic industry knowledge For topic.

Web-based

PROC 101
Define how the tool ties to internal processes.

Operator

Web-based

PROD 102
Provide basic operational usage of product

Web-based

OV 103
Data Analysis.

Virtual Classroom

Vendor XX-01
Operator Delta Class

Classroom

Vendor XX-02
Operator Class 1

Administrator

Web-based

PROD 201
Instruct on administrative Usage of product.

Classroom

Vendor XX-03
Administrator Class I

Classroom

Vendor XX-04
Administrator Class II

Classroom

GEN 002
UNIX Shell Programming.

Developer

Web-based

PROD 301
Change/configuration mgt.

Web-based

PROD 302
Product support. Licensing.

Classroom

Vendor XX-05
Developer Class I

Classroom

GEN 003
PERL Programming.

Delivery Type

Internally Developed.

Purchased From Vendor.

General industry training

Defining a class

- Title
- Description
- Objectives
- Pre-requisites
- Target Audience
- Experience
- Delivery Method
- Primary Delivery Location
- When offered
- Duration
- Monitored / Non-monitored

Building a training program for an individual . . .

- Coach your employee to help them understand the type of role they are suited for and would like to aspire to.
- Build a plan to get there!

Example: Training Plan for a Unix System Administrator

Course Name	Hours	Duration
Pre-requisites / Recommendations		
■ Personal Development classes		
■ Customer Interaction		
■ Basic Computing and Networks		
■ The Personal Computer or Intro to PC & DOS (if necessary)		
■ Data Communications I		
Level 1		
■ UNIX Concepts and Facilities	17.5 hours	3 hr/day
■ UNIX Bourne shell Programming	20 hours	3 hr/day
■ VI Editor	2 hours	
■ Apprenticeship		1-3 days
Level 2		
■ C Programming	30.5 hrs	
■ Basic Systems Administration	24-40 hrs	8 hr/day
■ Advanced Systems Administration	24-40 hrs	8 hr/day
■ AIX Basic Systems Administration	24-40 hrs	8 hr/day
■ AIX Advanced Systems Admin.	24-40 hrs	8 hr/day
■ Apprenticeship for a specific system		1-2 weeks

Measuring Success

- What are you measuring?
  - Good service to your customer?
    - Keep track of positive feedback.
  - New / updated information that needs shared?
    - Reward knowledge database submittals.
  - Success of classroom learning?
    - Take turns cross-training and teaching others.
  - Conference or boon-dogle?
    - Write a summary and present it back to the team.
- Certifications
  - When is it required? Why?
  - Fairness and legality . . .

Wrapping up

- Resources
  - An Adult's Guide to Style by Anthony Gregorc
  - Bloom's Taxonomy (3 domains of educational activities: cognitive – knowledge, effective - attitude, psychomotor - skills) . . . the goals of the training process. http://www.nwlink.com/~donclark/hrd/bloom.html
  - The Way They Learn by Cynthia Ulrich Tobias (defines learning styles)
  - How to Maximize our Child's Learning Ability by Dr. Lauren Bradway and Barbara Abers Hill (gives details about learning styles)
  - Learning How to Learn by "Doctor Memory" Jerry Lucas (talks about getting, learning, and using information)
  - The Well-Educated Mind by Susan Wise Bauer (examples of a classical education)
  - Dr. Brian Ray (student to teacher ratio's) . . . http://www.nheri.org/