

Emerging Adult Learning Principles for the Future Workplace

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NCURA Regions VI & VII Spring Meeting
April 7, 2009
Santa Fe, New Mexico



Overview of Presentation



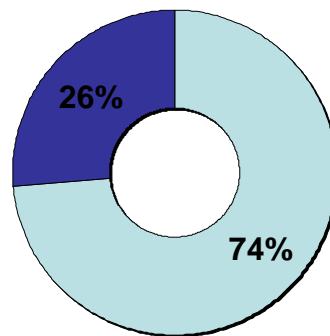
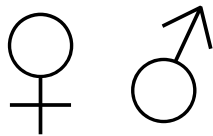
- Key tools and concepts for the future workplace
- Discuss emerging adult learning principles
- Encourage feedback and interactivity to enhance presentation

Let's Meet Our Colleagues



Please indicate your gender:

1. Female
2. Male

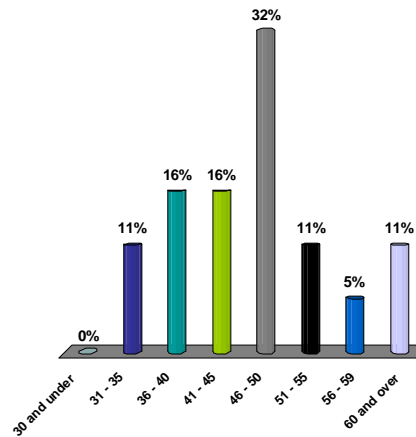


Female Male

Please indicate your age range:



1. 30 and under
2. 31 - 35
3. 36 - 40
4. 41 - 45
5. 46 - 50
6. 51 - 55
7. 56 - 59
8. 60 and over



Where are you from?

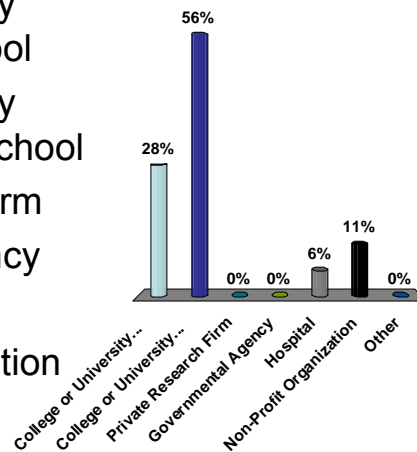


- 63% 1. Region VI
- 32% 2. Region VII
- 5% 3. Other NCURA Region
- 0% 4. Outside NCURA

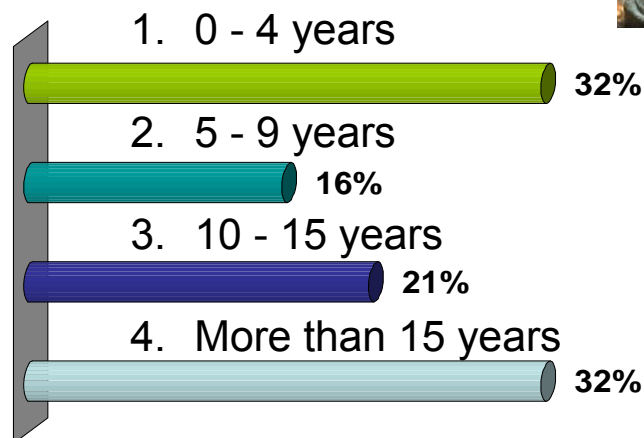
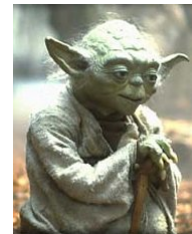
What type of organization do you represent?



1. College or University with a Medical School
2. College or University without a Medical School
3. Private Research Firm
4. Governmental Agency
5. Hospital
6. Non-Profit Organization
7. Other



How long have you worked in the research industry?



Emerging Adult Learning Challenges

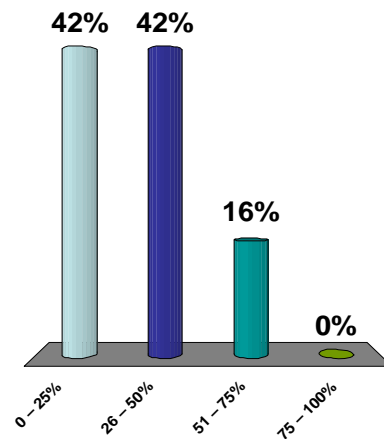
- What will the workplace of the future look like?
- How can institutions adapt to future personnel challenges such as:
 - Generational differences?
 - Communication styles?
 - Learning environment preferences?

Emerging Adult Learning Challenges

- How will a team approach to problem solving change in light of:
 - Returning older workers?
 - Shared work spaces?
 - Telecommuting?
 - Videoconferencing and Webstreaming?
- How will job descriptions and performance expectations change?

What percentage of these challenges does your institution's strategic plan currently address?

1. 0 – 25%
2. 26 – 50%
3. 51 – 75%
4. 75 – 100%



Institutional Culture

- Broad in scope
- Omnipresent
- Shapes employee & constituent behaviors
- Reflects organizational values & needs
- Reflects work ethics
- Reflects individual employee and constituent goals
- Influences and is influenced by organizational and societal factors

Organizational Factors

- Health and Retirement Policies
- Recruitment and Retention
- Hiring Returning Older Workers
- Position Descriptions
- Knowledge of Different Cultures
- Cross-Cultural Communication
- Political Priorities
- Alternative Work Agreements / Job Share
- Telecommuting

Societal Factors

- Information / communication technology skills required **regardless of occupation**
- Decentralization/Communication
 - Virtual teams
 - Cell Phones / Text Messaging
 - Flexible work arrangements
 - flex-time
 - part-time
 - telecommuting

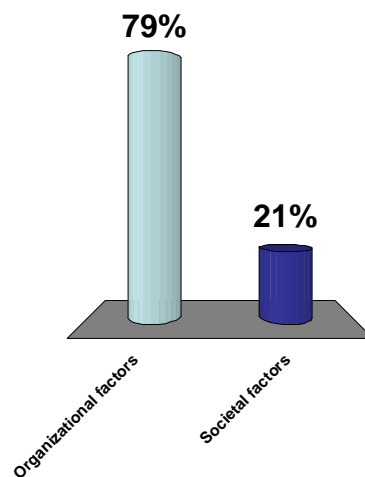
Societal Factors

Changing Demographics

- Population over 65
 - 20.5 percent increase by 2015
- Working age population (18-64)
 - 13.8% overall increase
- 80% of “boomers” plan to work part-time during retirement
- Information Workers 72% of US labor force by 2005

The institutional culture at my workplace is most influenced by:

1. Organizational factors
2. Societal factors





Elements of the Learning Infrastructure

- Physiological
 - Using our five senses
- Psychological
 - Presentation format
- Emotional
 - Learning styles
 - Educational level
 - Association with the content



Elements of the Learning Infrastructure

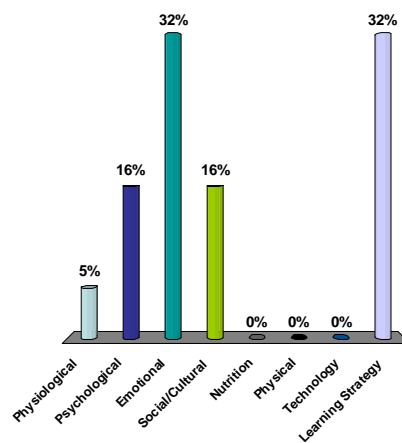
- Social/Cultural
 - Formal presentation
 - Networking
 - Group activities
- Nutrition
 - Food and beverages
- Physical
 - Arrangement of the learning space

Elements of the Learning Infrastructure

- Technology
 - Multi-media
 - Audiovisual
 - Electronics
- Learning Strategies
 - Lecture
 - Case Studies
 - Online
 - Panel Discussions

In my opinion, the most important element in the learning infrastructure is:

1. Physiological
2. Psychological
3. Emotional
4. Social/Cultural
5. Nutrition
6. Physical
7. Technology
8. Learning Strategy



Learning Styles

- **Visual Verbal Learners**
 - Read what they have to learn
 - Copy what is written on the board
 - Make outlines from textbooks
 - Use flashcards, highlight notes
- **Visual Nonverbal Learners**
 - Retain content (images, pictures, diagrams, videos, maps, timetables)
 - Think in “3-D” context

Learning Styles

- **Auditory Learners**
 - Watching videos
 - Listening to recordings
 - Group discussions
 - Lectures
 - Word association exercises
- **Kinesthetic Learners**
 - Laboratory classes
 - Field trips to museums
 - Role playing
 - Interactive study drills

Adults as Learners

- Autonomous
- Self-Directed
- Life Experiences and Knowledge
- Goal-Oriented
- Relevancy
- Practical and Pragmatic
- Respect and Self-Esteem

I would describe myself as a:

- | | |
|-----|-----------------------------|
| 53% | 1. Visual Verbal Learner |
| 32% | 2. Visual Nonverbal Learner |
| 16% | 3. Auditory Learner |
| 0% | 4. Kinesthetic Learner |

What Motivates Adult Learners?



Sources of Motivation

- Compliance with Formal Authority
- Professional Advancement
- Social Interaction and Networking
- Personal Development
- Service and Contribution
- Inspiration, Fulfillment, Enrichment

What are Barriers to Adult Learning?



Barriers to Adult Learning

- Home and Work Responsibilities compete against learning opportunities
- Each source of motivation can be its own specific barrier
- Find ways to enhance their reasons
- Find ways to decrease the perceived barriers



Effective Instruction Tips

- Process of life-long learning
- Adults learn at different speeds
- Positive reinforcement fosters learning
- Proper timing fosters learning
- Stimulating senses fosters learning



Tony's Tips for Effective Instruction

- Know your subject
- Know your audience
- Stay focused on learning objectives
- Serve as the facilitator
- Know how adults learn best

Tony's Tips for Effective Instruction

- Adults learn on a “need-to-know” basis
- What’s In It For Me (WIIFM)?
- Always play “What’s My Point !”
- If you have fun, your audience will have fun!

The Changing Face of the Work Force

Traditionalist	Baby Boomers	Generation X	Millenials
1900-1945	1946-1964	1965-1980	1981-2000
Typically loyal, controlling, honor the chain of command and are self-sacrificing.	Tend to be optimistic, social reformers, workaholics, competitive and are from the “Me” generation.	Are independent, competent, suspicious of authority and technologically adept.	Team oriented, determined and of the Internet generation.

Workforce Composition in 2006

Traditionalists: 7%	Gen X: 29%
Boomers: 42%	Millenials: 22%

Traditionalists

Motivated to “give back” to society

- Explain the relevance of content
- Show direct application to the job
- Provide specific examples
- Focus on active learning exercises
- Focus on case studies
- Avoid lectures and theory
- Facilitate discussion about real-life situations and solutions

Baby Boomers

Motivated to create new enterprises with community purpose

- Expect long work hours
- Rigid classroom structure
- View themselves as lifelong learners
- Use non-profit organizations to accomplish a collective purpose
- Prepare them for public office running on a platform of community reform

Baby Boomers

Motivated to create new enterprises with community purpose

- Engage in think tanks to resolve community issues
- Write books, newspaper articles, etc. to inspire reform
- Run well researched websites and blogs that focus on solving world issues
- Actively organize others to think about community and world issues

Generation X

Motivated to be independent problem solvers and self-starters; avoid control

- Value their free time
- Play and work hard
- Do not automatically respect authority
- Look for competence
- Comfortable with technology

Millenials

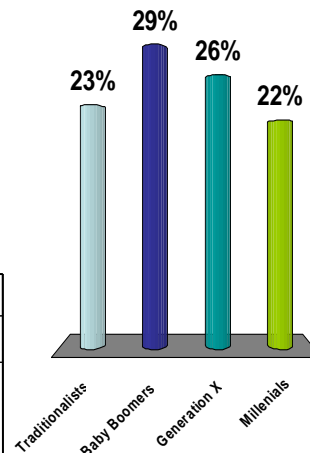
**Motivated to produce something worthwhile;
desire to be a hero and to make a difference**

- First generation of true “digital natives”
- Expect technology throughout curriculum
- Expect immediate communication and feedback
- Thrive on flexibility and space to explore
- Refuse to blindly conform to traditional standards
- Quicker to adapt than those who have come before
- Impact of technological advancement ...
 - Never experienced life without computers
 - Reverse accumulation of knowledge - the younger you are, the more you know
 - Comfortable with speed and change

Research personnel at my institution are mostly:

(please vote 4 times in rank order)

1. Traditionalists
2. Baby Boomers
3. Generation X
4. Millenials



Traditionalist	Baby Boomers	Generation X	Millenials
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Institutional Challenges

- Aging Boomers
 - Older workforce with skills, experience, and motivation
- Aging PIs
 - NIH PI average age expected to increase by 2020

Institutional Challenges

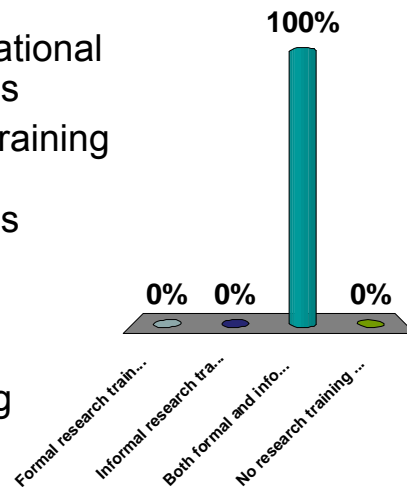
- Rise of the Millennials
 - Technological sophistication
 - Require more supervision
 - Need personal recognition
 - Social conscience
 - Choose flexible lifestyle over greater pay, responsibility
 - High turnover

Institutional Solutions

- Recognize single job, single employer career paths are disappearing
- Employees and constituents are constantly changing expectations
- Mobilized workforce - decentralized, linked globally, highly adaptive
- **Education is key !**
 - Continuing education and succession training will occur through nontraditional mediums

At my institution, we have ...

1. **Formal** research training and educational outreach programs
2. **Informal** research training and educational outreach programs
3. **Both formal and informal** research training programs
4. **No** research training programs



Title: Online Event Registration and Data Management System

**Invention
Summary**

The software provides online registration and data management for training classes, educational activities and special events. A customizable content management system offers several unique features to effectively deliver courses and seminars, to collect and manage participant information, and to promote upcoming activities. This technology enables both users and administrators to better organize, access and track program records. The Home Page displays "Classes by Title", "Classes by Date", "Training Partners", "Certificates of Achievement", "Special Events", "Resources and Services", "Bulletin Board", "Requests/Feedback" and a "User Profile" link for easy and secure login.

**Market
Applications**

The software is a valuable addition to any distance learning company, private research organization, college or university, secondary school system, professional association or community education program. Customizable applications include user-friendly online registration and cancellation procedures; automated email confirmation and notification capabilities; distribution of class materials and handouts from a secured environment; generate email lists and cross-referenced demographic data useful for target marketing; maintain waiting lists for upcoming classes and events; view and print official participant transcripts; track contact hours and CEUs; conduct online surveys and evaluations; monitor all records, usage reports and statistics; and reference a comprehensive "Help Directory".

**Features,
Benefits &
Advantages**

- Proven resource utilized by multiple departments at the University of Utah
- Effective tool for advertising available classes and target marketing to participants
- Provides instant online registration, displays head counts, and creates class rosters
- Automatically sends email confirmations, notifications and class materials to registrants
- Offers participants an individualized User Profile accessible by user name and password
- Administrators can build and edit classes, group classes into catalogs, manage active and archived classes, view and print class enrollment, send class emails, assign different levels of user access, and edit all global constants, menus, headers and footers
- Organizations can identify specific classes and seminars within a curriculum, track participant progress, and award an official certificate of education or completion
- Powerful software enables data management, program development, and customization

**Intellectual
Property &
Development
Status**

This technology is part of an active and ongoing research education program and includes a working prototype. The University of Utah is currently seeking partners for further development and manufacturing of final product. It is available for developmental research support/licensing under non-exclusive terms.

**Related
Research**

- www.education.research.utah.edu
- www.rostertech.com

**U of U
Researcher**

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E-learning Trends

- Becoming a dominant learning delivery system
- Potential of E-learning
 - Bring learning closer to employees

What is E-learning?

- Blended learning
 - Combining face-to-face and online instruction
- Interactivity
 - Role Play
 - Group problem solving
- Authentic Learning
 - Real-world examples
 - Case Studies



E-learning Barriers

- Demands for training when needed
- Technical Costs/Requirements
- Higher quality content needs
- Training online teachers
- Erased or reduced budgets



E-learning Perceptions

- Trend toward E-learning
- Positive outlook for future
- Many embrace blended learning
- Many use E-learning or blended learning to train employees
- E-learning can have positive impact on learners

E-learning Trends

- Delivery methods in future
 - Blended learning dominates
 - Self-paced E-learning
 - Instructor-led classroom learning
 - Multimedia

Future Online Instructor Roles

- Designer/developer will grow most
- Online mentor/coach
- E-learning manager/director

Preparing Online Instructors

- Extensive internal/external training to teach online
- Online facilitating or moderating skills
- Online mentoring skills
- Lecturing skills
- Evaluating/assessing skills

Quality of Future E-learning

- Robust learning environment
- High quality E-learning content to engage learners
- Assessment of learner's online achievement and satisfaction
- Clearer reward systems and incentives for E-learning completion



Future E-learning Technologies

- Knowledge management tools
- Online simulations
- Wireless technologies
 - Mobile, wireless, and wearable technologies



Future E-learning Instruction

- E-learning will impact human learning and performance
 - Engaging learning experiences
 - Just-in-time learning
 - Performance support

Instructional Approaches

- Authentic Cases/Scenarios
 - Real-world experiences
- Simulations or gaming
- Virtual team collaboration
- Virtual team problem solving
- Problem-based learning

Conclusions

- E-learning and blending forms on the rise
- Growing demand
 - Authentic learning
 - Simulated experiences
- Changing times demand changes in learning methods