



INDIANA
ADULT EDUCATION



Reflections and Opportunities

Gina DeSanto, Ph.D.
Sr. Deputy Commissioner
gdelsanto@dwd.in.gov

Overview

- Recruitment & Completion
 - Increasing participation and completion
- Relevance of Content
 - Meeting current intellectual-demand
- Delivery
 - Aligning faster pace with deeper learning

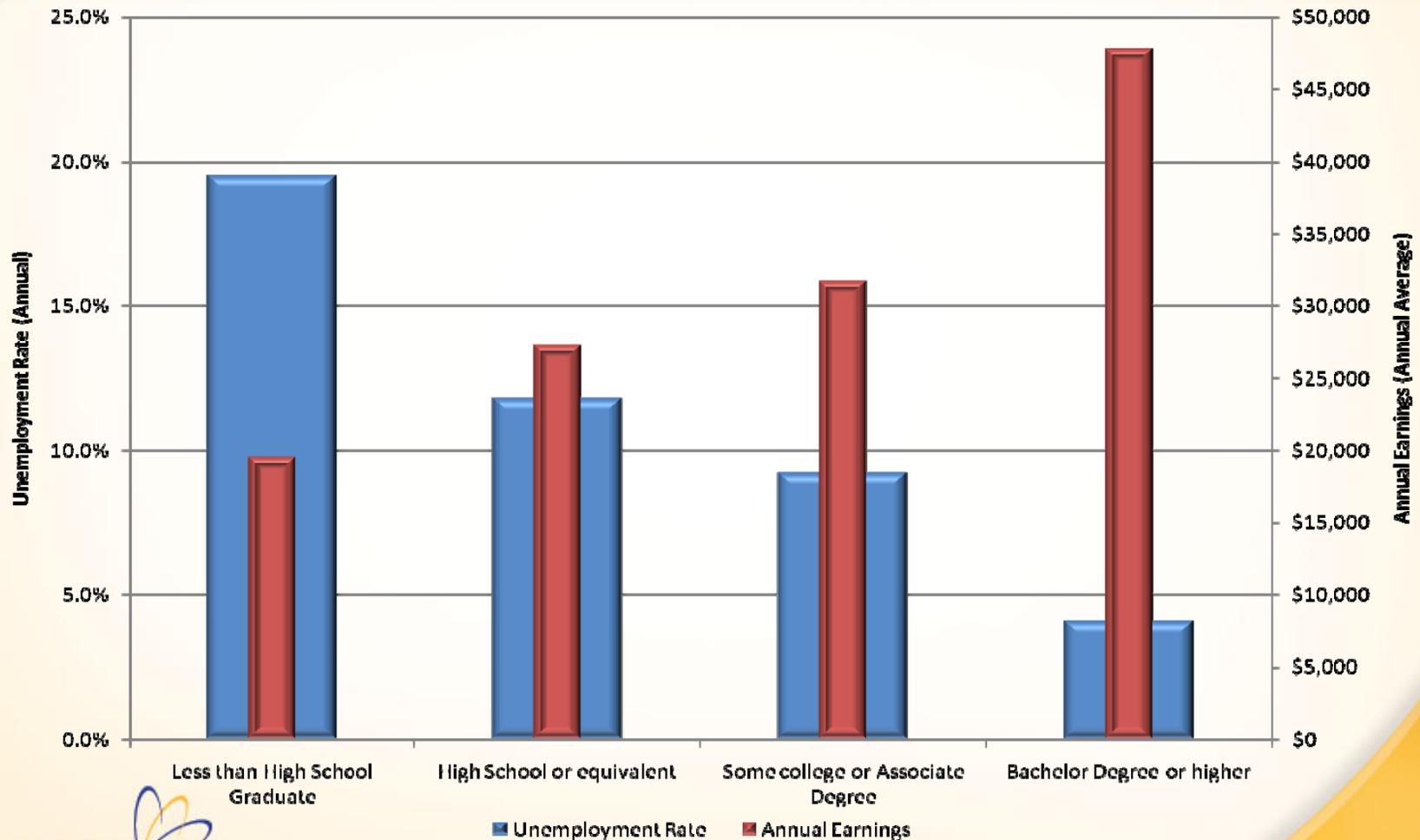
Recruitment and Completion

Recruitment and Completion

- 500,000 IN workers lack a HSD or GED (16%)
- Carnivale--Georgetown U
 - 2018: 55% of jobs will require post-secondary ed
 - Bureau of Labor Statistics—Out of Workforce (2009)
 - 35% of all high school dropouts
 - 10% of college graduates
- David Leonhardt—NYT
 - 1954: 96% of men 24-54 worked
 - 2011: approximately 80%

Recruitment and Completion

Unemployment Rate and Annual Earnings by Educational Attainment
Indiana - 2009



Relevance of Content

Employers' expectations of employees have increased

% who agree with each statement

Our company is asking employees to **take on more responsibilities** and to **use a broader set of skills** than in the past



Employees are expected to **work harder to coordinate with other departments** than in the past



The **challenges** employees face within our company are **more complex today** than they were in the past

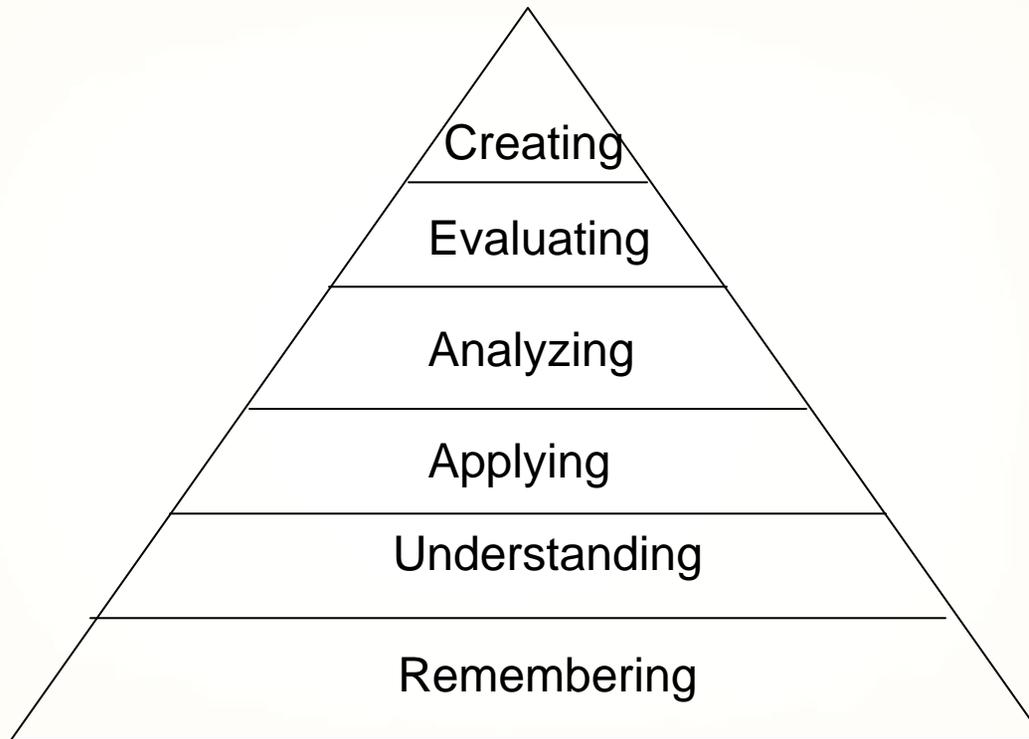


To succeed in our company, employees need **higher levels of learning and knowledge** today than they did in the past



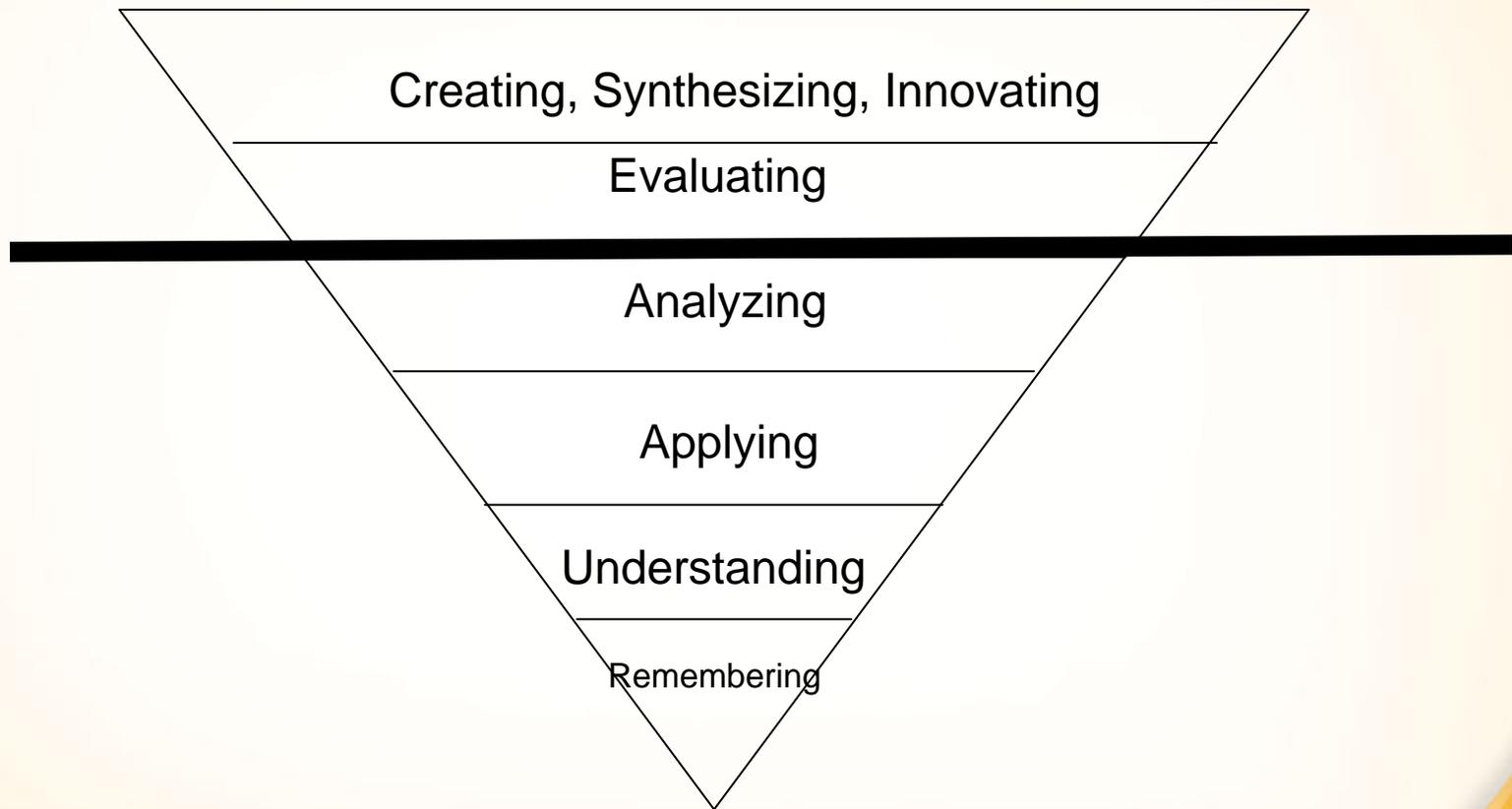
American Association of Colleges and Universities: "Raising the Bar" N=302

Bloom's Taxonomy - Original



Benjamin Bloom, 1954; recast as levels of intellectual behavior

Bloom's Taxonomy – Revised By Need

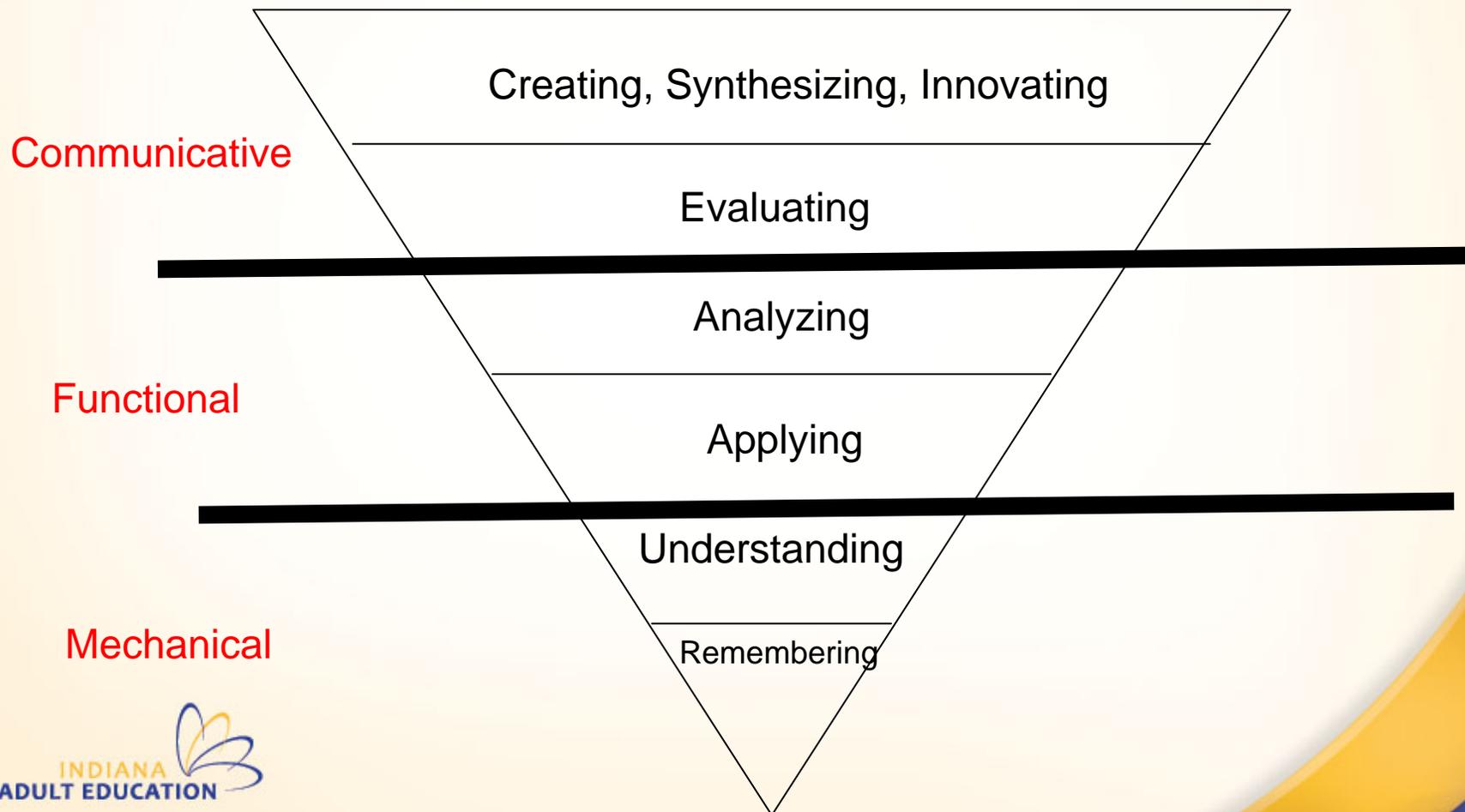


3 Learning Stages

- **Mechanical (Cognitive)**
 - Definitions, conjugations, formulae
- **Functional (Associative)**
 - Word problems, substitution drills, differentiation exercises
- **Communicative (Autonomous)**
 - Framing solutions, conversing, suggesting new uses

Fitts, Posner, John R. Anderson, et al.

Bloom's Taxonomy – Revised by Need



Delivery

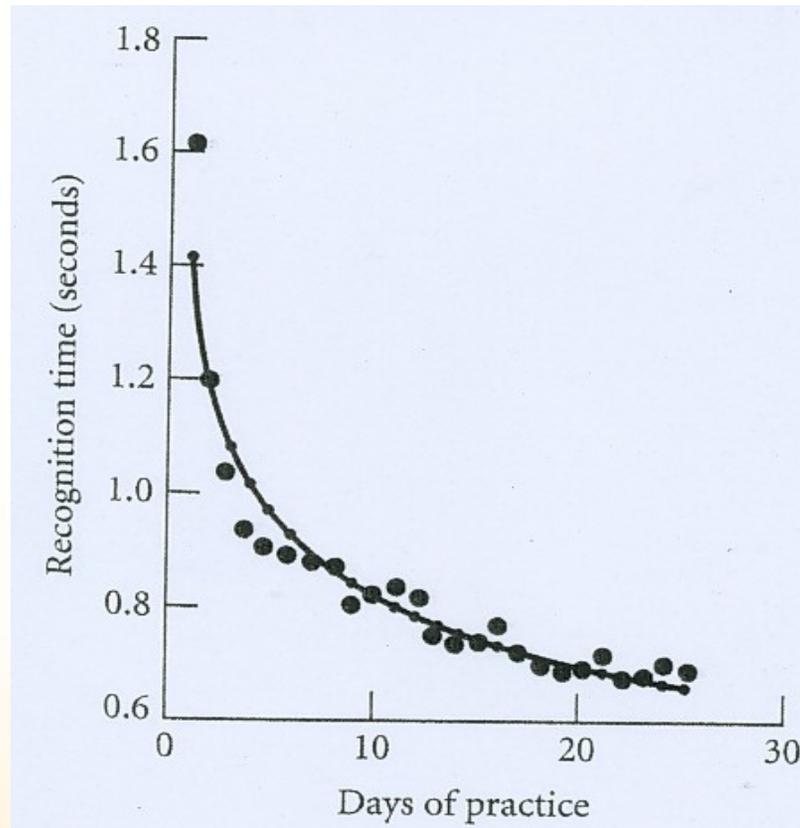
Delivery

Three Keys to Embedding and Retrieval

- Recency
- Frequency
- Elaborative Processing

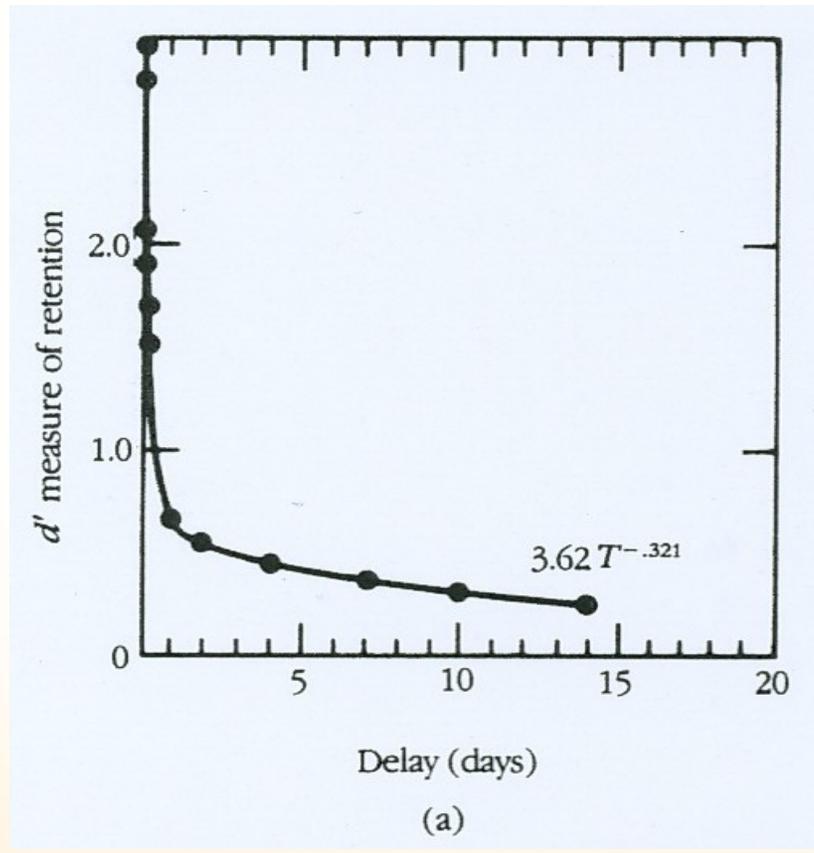
Recency

Power Law of Learning



Frequency

Power Law of Forgetting



Elaborative Processing

- Metacognition
- Analogical processing
- Explanatory rehearsal
- Mapping
- Creating models or manipulatives
- Other

Summary

- Recruitment & Completion
 - Increasing participation and completion
 - Messaging
 - “Intrusive Counseling”
- Relevance of Content
 - Meeting current intellectual demand
 - Curricular Review, including integration
 - Informing learners about “Stages of Learning”
 - Aiming for “Communicative Level”
 - *GED Reform*
- Delivery
 - Aligning faster pace with deeper learning
 - Focusing on Recency, Frequency and Elaborative Processing
 - Informing learners about good techniques

Knowles ex Lindeman

Adults respond better to internal versus external motivators (Recruitment).

Adults need to be responsible for their decisions on education and involved in the planning of their learning (Relevance).

Adults need to know the reason for learning something *and where they are in the learning process* (Relevance).

Adults are most interested in learning subjects having immediate relevance to their work and/or personal lives (Relevance).

Experience (including *error/back-prop*) *and analogy* provide the basis for learning activities (Delivery).

Adult learning should be problem-centered rather than content-oriented (Delivery).

Fitts, Posner, John R. Anderson

Mechanical [cognitive], Functional [associative], Communicative [autonomous]
(Content-Delivery)

Recency, Frequency and Elaborative Processing (Delivery)