Dale’s Cone of Experience

EDG14 Developing learning resources II
Graduate Certificate in Teaching
Tonga Institute of Education

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Tell me and I shall forget
Show me and I may remember
Involve me and I will understand

Confucius
Objectives

• We design a variety of learning resources
• A chance for students to:
  – learn new ideas (expand/refine prior knowledge)

• How effective are our learning resources?

• Dale’s Cone of Experience
  – Ensure our activities and resources help to maximise learning
Edgar Dale (1900 – 1985)

• An American educationist
• Researched audio/visual tools in teaching
• Cone of Experience
  – Students were taught using different modes стратегий
  – Tested retention after 6 weeks
  – Found that retention is related to strategies used in teaching:
    • Using verbal symbols (e.g. Lecture) - 5% retained
    • Reading and demonstration - less than 30% retained
    • Direct experience with phenomenon - more than 90% retention
More:
Student engagement
Contextualised
“Real-life”

Dale’s Cone of Experience

Conclusion

• Engage as many senses as possible (most important)
• Consider also these:
  – Context (local, global)
  – Different learning styles
  – Multiple intelligences
  – Jerome Bruner’s Three modes of representation (enactive, iconic, symbolic)
  – Piaget’s Developmental
Criteria for constructing Visual-aids

1. Strong (sturdy)
2. There is movement involved (e.g. parts that move; students are moving parts about)
3. Students are able to handle it
4. Large enough to be seen from distance
5. Accurate
6. Cheap and available
7. Colourful and attractive
Make sure visual resource is strong
There is movement in the parts

\[ \text{Cu} + 2\text{AgNO}_3 \rightarrow 2\text{Ag} + \text{Cu(NO}_3)_2 \]
Students are able to handle it!
Large enough to be seen from a distance
Accurate

- When possible, use the REAL-THING

- If not, use accurate representation of the ‘real thing’

- May need further research
Cheap and available
Colourful and attractive
Colourful and attractive
Colourful and attractive
Colourful and attractive
Colourful and attractive
Relative energies of orbitals
Cheap and available