

Informal Science Education: The role of educational TV

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Three perspectives:

- *Empirical*: Effects of educational TV
- *Theoretical*: Processing of educational TV
- *Practical*: What “works?”

Empirical Research:

Outcomes and Impact

History

It all began with *Sesame Street*

- Immediate and long-term effects
- Significant differences as late as junior high and high school



Impact of science and technology programs

Research shows effects of:

- *3-2-1 Contact*
- *Bill Nye*
- *Magic Schoolbus*
- *Cro*
- and others



Impact of science and technology programs

Significant impact on:

- Knowledge
- Exploration and experimentation
- Attitudes

Theory:

Comprehension of Educational TV

Capacity model

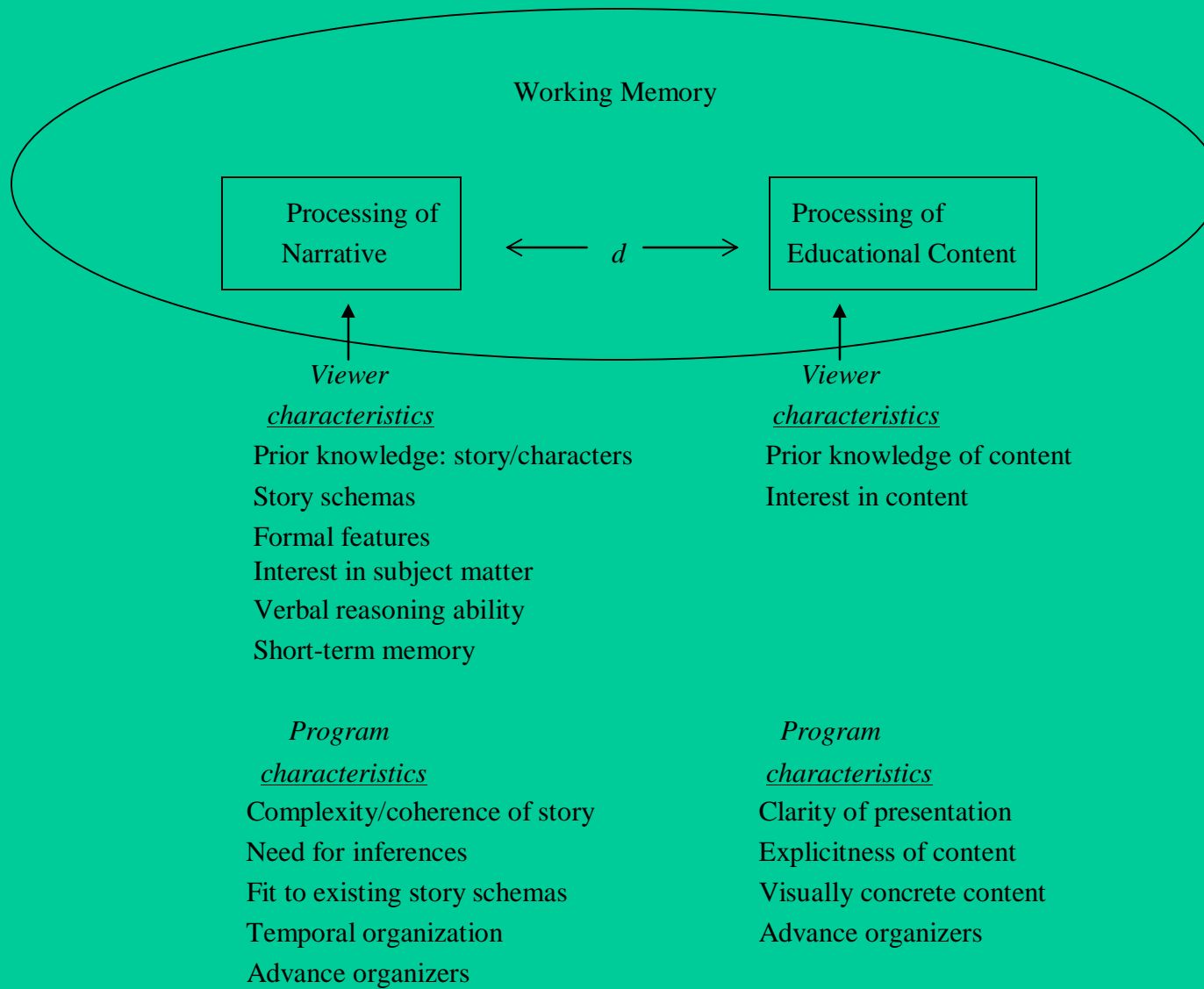
Grows out of research literature on:

- Information processing
- Text comprehension
- TV and media

Assumptions:

- Limited working memory capacity
- Concurrent processing

Capacity model



What “Works?”

What “Works?”

- ü Concrete, visual phenomena or devices
- ü Visual action
- ü Inherently interesting and kid-relevant topics
- ü Age-appropriate language and presentation
- ü Age-appropriate humor
- ü Appealing characters
- ü Dramatic narrative
- ü “Content on the plotline”: Small distance

What “Works?”

- Tight focus on a small number of ideas
- Repetition and reinforcement
- Process of discovery and refining solutions
- Explicit connections among segments
- “Try this at home!”

Conclusions

- Educational TV works
- Research helps us:
 - understand children
 - identify ways to maximize impact
- All with the goal of giving children the best educational support that we can

Thank you!