

Media Accessibility: A Key to Learning

Supported Video Project

CaptionMax/NCSeT

A Technology in the Works
Project

Goals for Supported Video Project

- Explore whether captions with annotations increase comprehension over standard captions for DHH high school students
- Obtain statistically valid research on accessible technology as learning tool to support anecdotal data
- Seed project, generate foundation for continued research on broader range of learners

CaptionMax

- Founded 1993
- Media accessibility is all we do
 - All major networks, educational media providers, corporations
- Customer and consumer focused
 - Consumer outreach: DHH, blind/low vision, ELL, learning disabilities, and others
 - Known for high quality and reliability
- Recipient of multiple OSEP grants from the U.S. Department of Education

NCS eT

- National Center for Supported eText
- Federally funded by U.S. Department of Education's Office of Special Education Programs (OSEP)
- Investigating the impact of "supported electronic text" on students' reading comprehension of content area material

Research Design

- Do captions with annotations increase comprehension over standard captions?
- Mainstream DHH students
- DVDs with standard or enhanced captions
- Randomized, counterbalanced crossover
 - Control (standard) and test (enhanced) DVDs
 - Switch control and test groups
 - Pre- and post-tests for each DVD

Standard Captions

- White text on black background
- Text timed to synchronize with audio
- DVD technology

Standard Captions



using contractile cells
in its outer cell layer.

Enhanced Captions

- Standard caption format
- Add interactive annotations
- Denoted with color highlight and underline
- Link to annotation screen

Annotations

Three types of enhanced captions

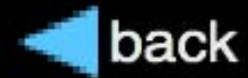
1. Vocabulary definitions
2. Concept maps
3. Labeled illustrations

Annotated Caption



using contractile cells
in its outer cell layer.

Vocabulary Definition



contractile

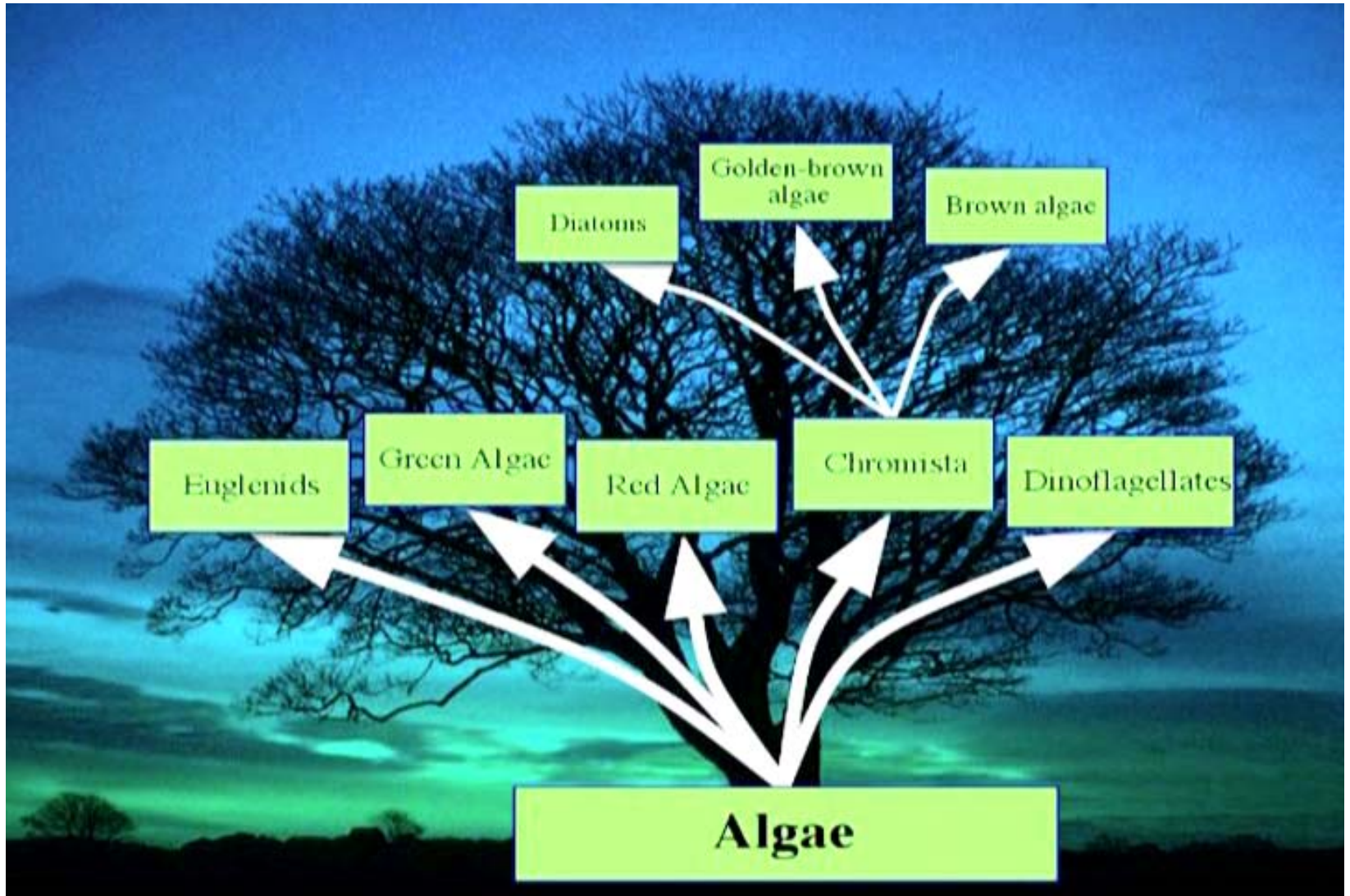
capable of getting shorter and thicker,
like muscles.

Annotated Caption



are exactly
what the algae cells need

Concept Map

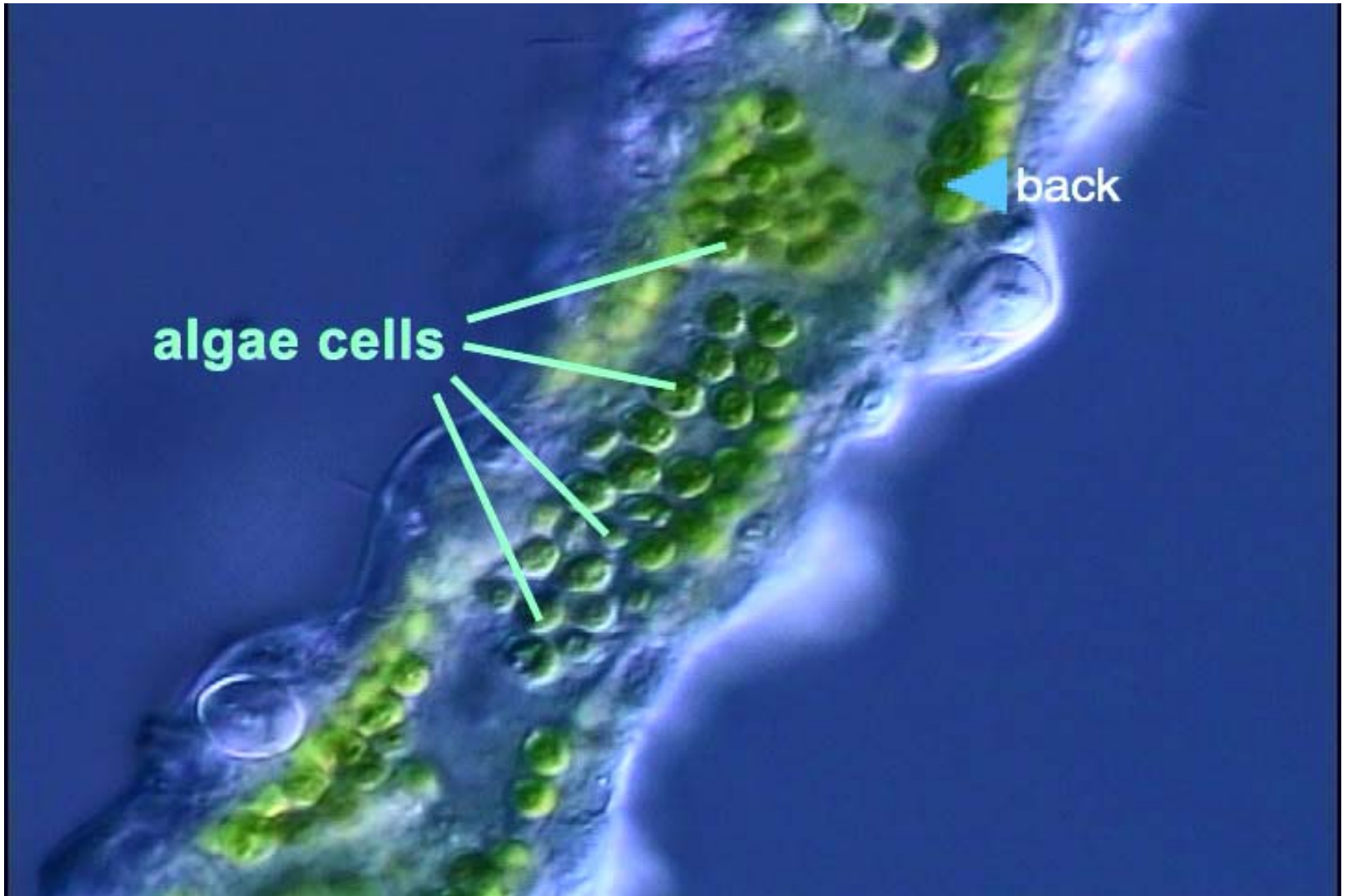


Annotated Caption



cultivating a crop of green algae cells in their tissues.

Labeled Illustration



Challenges

- Finding and organizing subjects
- Selecting grade-appropriate video material and vocabulary
- Creating test materials
 - Generate sufficient research data
 - Practical user experience

Next Steps

- Expand test audience
 - Enhanced description for students with vision loss
 - Captions and description for students with learning disabilities
 - Other potential beneficiary audiences
- Demonstrate broad case for enhanced media accessibility