

Reinventing Digital Access: Three Initiatives to Learn, Share & Grow

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**2023 OSEP LEADERSHIP AND PROJECT DIRECTORS'
CONFERENCE**





2023 OSEP Leadership and Project Directors' Conference



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Clerc Center Online Community

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Laurent Clerc National Deaf Education Center | Gallaudet University



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Clerc Center – Who Are We?



Clerc Center Online Community – What Is it?

“Community is about doing something together that makes belonging matter”
- Brian Solis



Clerc Center Online Community – Let's Explore

Clerc Center Community
Resources. Training. Networking. Support.

[Start Here](#) [Site Navigation](#) [Help and FAQ](#)

 Welcome to the Clerc Center Portal [Copy link](#)

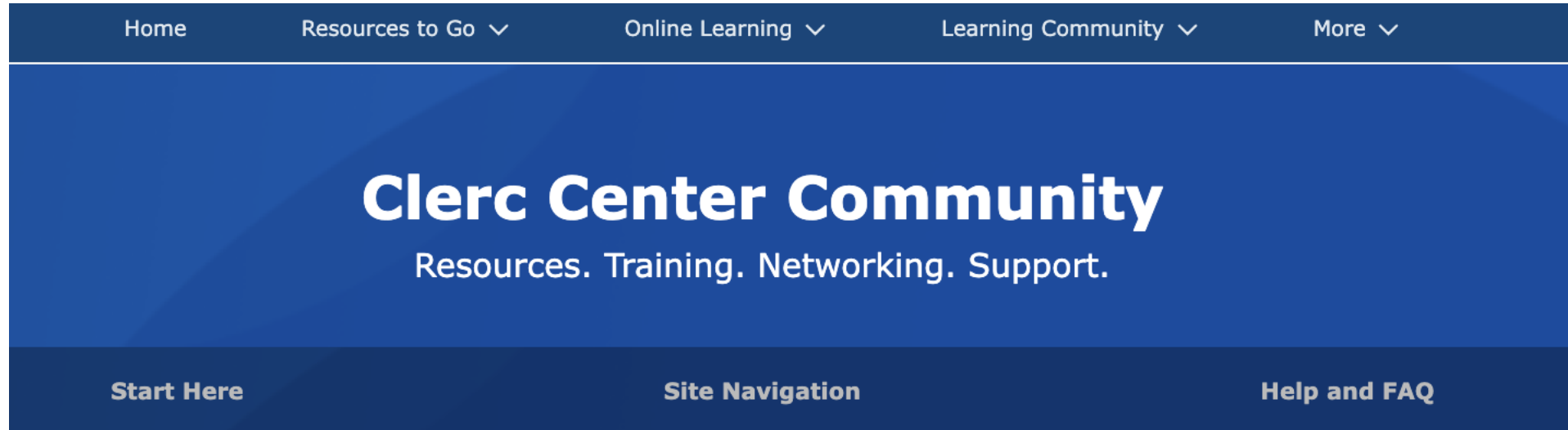


Watch on  YouTube

CLERCENTER.GALLAUDET.EDU



Parts of the Community



Areas to explore and use:

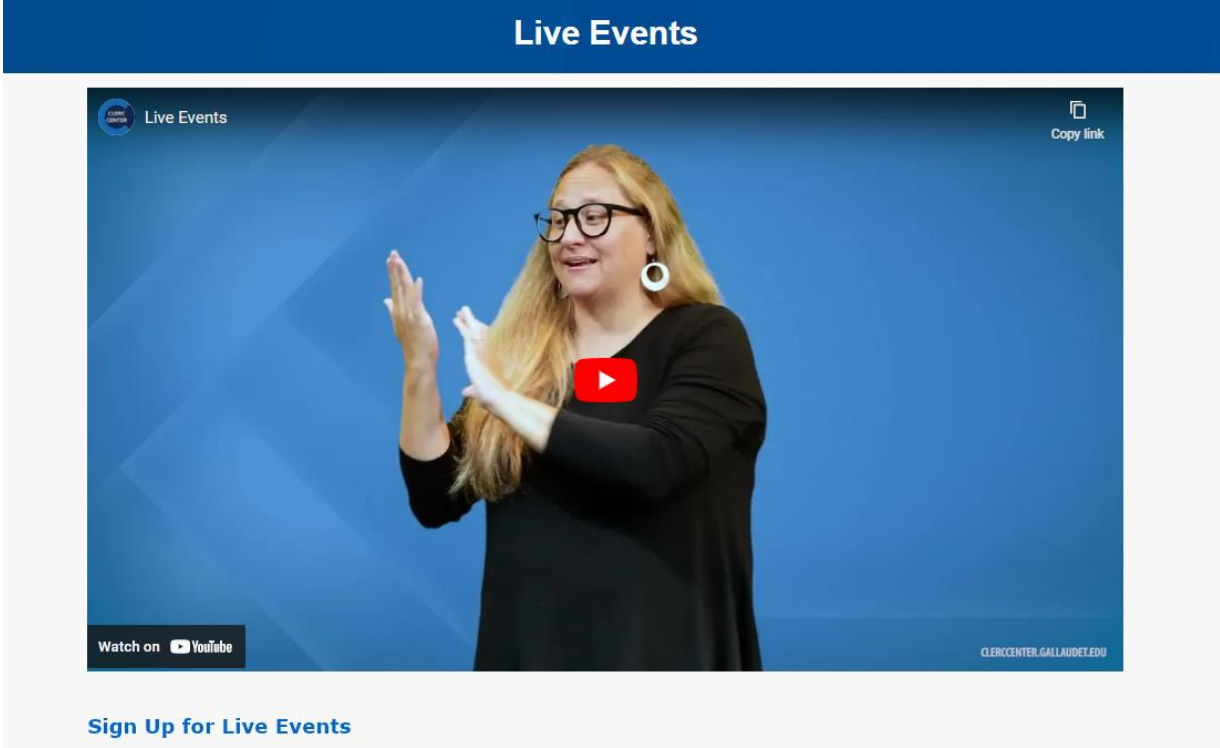
Resources to Go, Online Learning, Learning Community, Live Events



Community Menu – Live Events

- What is Your E Superpower: Techniques to Enhance, Empower, and Empathize
- STEAM is Everywhere
- Engineering Can be Fun!

Certificate of Attendance



The screenshot shows a webpage titled "Live Events" with a blue header. The main content area features a video player with a woman speaking. The video player has a "Live Events" logo in the top left, a "Copy link" icon in the top right, and a "Watch on YouTube" button in the bottom left. The URL "CLERICENTER.GALLAUDET.EDU" is visible in the bottom right of the video player. Below the video player is a blue link that says "Sign Up for Live Events".



Community Menu - Networking

Networking

Join others in the community to exchange ideas, collaborate, and discover together.



Active Groups ▾

New

3 items • Sorted by Last Activity • Filtered by All groups - Archive • Updated a few seconds ago

Search this list...



Name



Last Activity ↑



[Introduce Yourself!](#)

6/1/2023, 9:01 AM



Example: Literacy & Best Practices

Resources to Go →
Media Catalog
→ Professionals

Professionals

LANGUAGE AND COMMUNICATION FOR THE DEAF AND HARD OF HEARING 2 Files Language and Communication for the Deaf and Hard of Hearing	SOCIAL-EMOTIONAL LEARNING (SEL) 6 Files Social Emotional Learning (SEL)	LEARNING ENVIRONMENT 5 Files Learning Environment
TEACHING AND LEARNING 5 Files Teaching and Learning	SUPPORTING STUDENTS WHO ARE DEAF AND HARD OF HEARING F Supporting Deaf and Hard of Hearing Child	LITERACY 12 Files Literacy
BEST PRACTICES AND INFORMATION 2 Files Best Practices and Information	ADVOCACY 6 Files Advocacy	RELATED EDUCATION SERVICE PROVIDERS 2 Files Related Education Service Providers



Example: Literacy



Professionals > Literacy

STORYSIGNING LIBRARY

15 PRINCIPLES OF READING TO DEAF CHILDREN 16 Files

ASL Nook (Website Link) 8 views

ASL Connect (Website Link) 99 views

How Can We Motivate Struggling Latino Adolescents to Read? 0 views

High Expectations + Reading Intervention Plan = Big Jump in Students' Reading Scores 1 view

CHARACTERISTICS OF AN effective writing literacy program By Candé Marcia Reid

the guided reading approach a practical method to address diverse needs in the classroom By Laura M. Schaffer and Barbara R. Schorer

enhancing the reading process tips for asl/english bilingual classroom By Melissa Rascher












15 Principles: Individual Resources

Professionals > Literacy > Fifteen Principles of Reading to Deaf Children



Resources to view individual principles and...

 <p>Principle #1 112 views</p>	 <p>Principle #2 79 views</p>	 <p>Principle #3 108 views</p>
 <p>Principle #4 55 views</p>	 <p>Principle #5 45 views</p>	 <p>Principle #6 42 views</p>
 <p>Principle #7 41 views</p>	 <p>Principle #8 37 views</p>	 <p>Principle #9 34 views</p>



15 Principles Training



Training

Certificate available after completion

My Learning

"My Learning" shows learning specific to you and any associated achievements.

Online Learning

Sort: Best ▾

Course Title	Status	Completion Date	Duration	Rating
Be Fun: Force and Motion for K-5	COMPLETED	4/27/2023	-	★★★★★
STEAM Is Everywhere: Sphero Bolt and Electronics -	COMPLETED	4/3/2023	1 hr 38 mins	★★★★★
What Is Your E Superpower? Techniques to Enhance,	IN PROGRESS	2/15/2023	1 hr 33 mins	★★★★★
15 Principles for Reading to Deaf Children	IN PROGRESS	10/9/2022	24 mins	★★★★★

The '15 Principles for Reading to Deaf Children' course is highlighted with a grey circle.



Example: Teaching Content

STEAM



Resources to view and...

Professionals > Teaching and Learning > Specific Content Areas > STEAM

The grid contains 12 resource cards, each with a thumbnail image, title, description, view count, and star rating:

- NTID Regional STEM Center**: NTID established the NTID Regional STEM Center (NRSC) i...
4 views, 5 stars
- CSD Learns - STEM resources**: Representation matters, particularly in education. That's why CSD...
8 views, 5 stars
- deaf kids CODE**: Deaf Kids Code promotes technology, computer science, an...
13 views, 5 stars
- Scientific Methods by 1st Grade Scientists**: Let our young scientists show you the signs for each step of the...
2 views, 5 stars
- Coding Concepts in American Sign Language**:
1 view, 5 stars
- 2021 ECE Summit - STEAM resources (Website Link)**:
7 views, 5 stars
- Atomic Hands (Website Link)**: Atomic Hands is committed to increasing public accessibility to...
29 views, 5 stars
- Butterfly Life Cycle by AASD Students**:
0 views, 5 stars
- High School Science Unit - Electricity**: PDF of a slideshow presentation in ASL about electricity by MSSD...
0 views, 5 stars
- Salma & Talia's Story of Sand (Science)**: K-2 - Describing how sand came from mountains with keywords
0 views, 5 stars
- ASL signs for the Scientific Method**: "ASL Scientific Method" by grades 1 & 2 students. Enjoy their...
0 views, 5 stars



Example: STEAM Training



Training

Certificate available after completion

My Learning

"My Learning" shows learning specific to you and any associated achievements.

Online Learning Sort: Newest ▾

COMPLETED

Be Fun: For K-5

4/27/23

Be Fun: Focus on the motion for high fifth grade

★★★★★

COMPLETED

STEAM IS EVERYWHERE

SPHERO BOLT AND ELECTRONICS

STEAM Is Everywhere: Sphero Bolt and Electronics -

Learning Plan 1 hr 38 mins 4/3/2023

STEAM is Everywhere focuses on two activities at the high school level: Sphero BOLT™, an interactive, hand-sized

★★★★★

IN PROGRESS

What Is Your E Superpower? Techniques to Enhance,

Learning Plan 1 hr 33 mins 2/15/2023

★★★★★

IN PROGRESS

15 Principles for Reading to Deaf Children

Learning Plan 24 mins 10/9/2022

This learning plan is a self-paced training intended to break down the 15 Principles for Reading to Deaf Children. Each principle

★★★★★



Benefits

How can the Clerc Center Online Community benefit YOU?

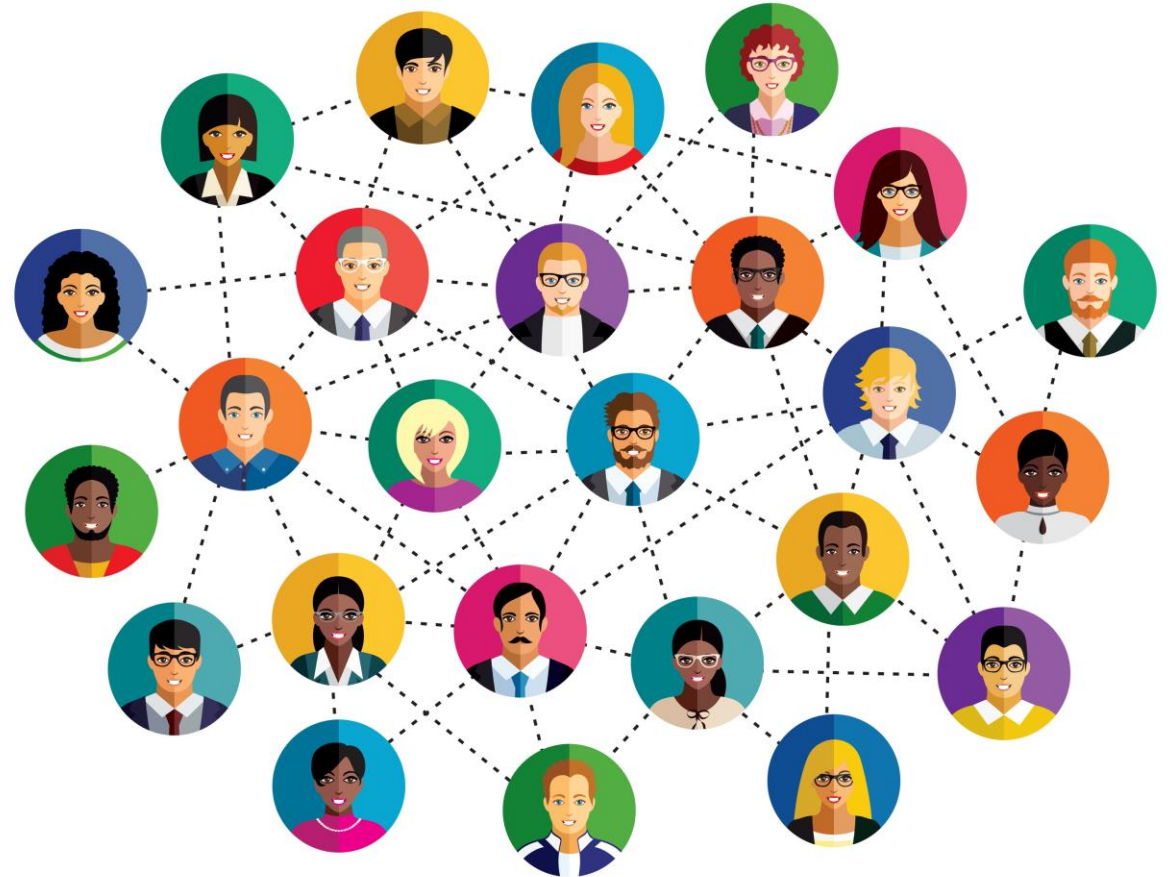


How Can You Contribute to the Community?

Learn . **Share** . Grow

Do you have resources that might be good for parents of deaf and hard of hearing children or the professionals working with them to have?

If so, contact us!



Join Us!

Join us to:

- **Learn** from our resources
- **Share** your resources with others
- **Grow** your network and knowledge



How Do I Sign Up for the Community?



QR Code directs you to the Clerc Center website to subscribe to the Clerc Center
<https://clerccenter.gallaudet.edu/ndec/subscribe/>

Or go directly to the registration page for the Community:
<https://clerccenter.force.com>



Checking in



Deaf man wearing black Mozzarella Pizza shirt signing checking in.
Q/A session at the end of the presentations.



Next... American Sign Language (ASL): Access to Children's Educational Television

Clerc Center Online Community



American Sign Language:
Access to Children's Television



American Sign Language (ASL): Access to Children's Educational Television

Wendy Sapp, Ph.D., COMS

Bridge Multimedia

Partially funded by cooperative agreement H327C210003



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Bridge Multimedia American Sign Language (ASL) Research, Development and Production Projects

Project summary: Funded by H327C210003 (TV Access) and additional funding sources, Bridge Multimedia is exploring the creation of prototype ASL-based technology and produce ASL versions of high quality educational media for children.



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Why ASL?

- Most Deaf children who sign lack regular exposure to fluent signers (dos Passos Canteri, et al, 2015)
- Early exposure to ASL improves ASL and early literacy skills (Chamberlain & Mayberry, 2000; Freel, et al, 2011, Mayberry, 2007)
- Deaf children exposed to ASL in educational media increase vocabulary in ASL and written English (Golos, 2006; Golos & Moses, 2011)



Intended Audiences and Users:

- (1) Deaf and Hard of Hearing children
- (2) Deaf or Hard of Hearing parents who have a hearing child and who want to better understand what their children are watching
- (3) Hearing parents of Deaf children



Goals for ASL R&D project

To determine the...

- Usability of ASL Picture in Picture (PiP) for children and their caregivers
- Appeal of ASL PiP for children and their caregivers
- Comprehension of ASL PiP by children



Prototype options:

- (1) One single interpreter per video
- (2) One single interpreter changing props to inhabit different characters per video

Feature Options:

- (1) Adjustable location of Picture in Picture (PiP) ASL
- (1) Adjustable size of PiP ASL
- (1) Adjustable opacity of PiP ASL

Content Options:

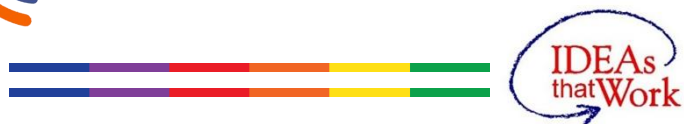
- (1) Animated episode: Anticipate using *Work it Out, Wombats*
- (1) Live action episode: Anticipate using *PBS Kids' Talk About*



Input received from...

- Paper Testing with hearing parent with Deaf children
- Paper testing with Deaf parents of hearing children
- Paper testing with Deaf parents of Deaf children

- Deaf Advisory Board



ASL PREFERENCES

Pick Your ASL Placement:



Pick Your PIP Size



Small

Medium

Large

Pick Your Transparency



Lighter

Medium

Darker



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Size Options



Small



Medium



Large



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Transparency Options: Light



Transparency Options: Medium



Transparency Options: Dark



Placement Options



Upper Right



Lower Right



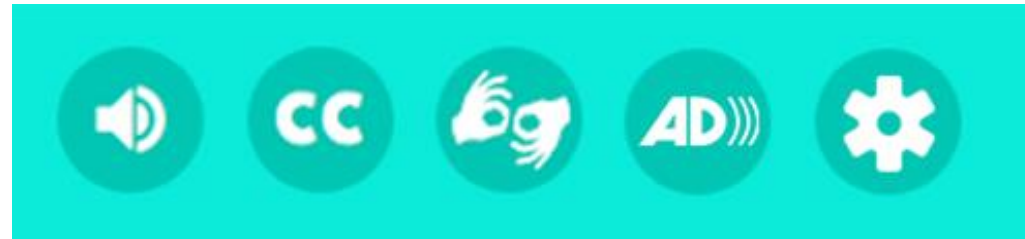
Middle Left



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Easy Access to Set Up Controls



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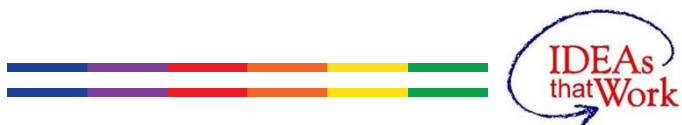


Beyond specific features, viewers who are Deaf want...

- Options
 - “One size will not fit all”
- Flexibility
 - Ability to fine tune placement and size “gives sense of agency”
- Parity
 - “ASL should not be relegated to a small corner of the screen”
- Characters who sign and characters who have hearing aid
 - “Representation is a small but impactful thing.”



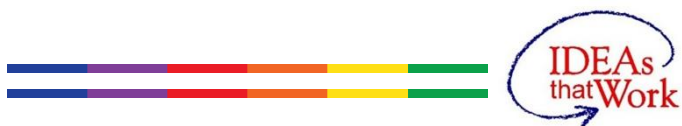
ASL Story Time: *Love on a Plate*



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ASL Story Time: *Soup Day*



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Powered by Infinite Access: Self-directed accessibility

For more information, contact
Wendy Sapp, Ph.D.

wsapp@bridgemultimedia.com



Next... Audio Description and Synthetic Speech: A Prosodic Approach

American Sign Language (ASL):
Access to Children's Educational
Television



Audio Description and Synthetic Speech:
A Prosodic Approach



Audio Description and Synthetic Speech: A Prosodic Approach

Matthew Kaplowitz, B.S., President and Chief Creative Officer
Bridge Multimedia

Partially funded by cooperative agreement H327C210003



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Bridge Multimedia Audio Description and Synthetic Speech: A Prosodic Approach

Project summary: Funded by H327C210003 (TV Access) and additional funding sources, Bridge Multimedia is exploring the intersection of AI speech and psycholinguistics as a means of creating high quality synthetic speech for audio description. The process we are using also gives us the opportunity to create four new barrier-free job categories, enhancing employment opportunities for people with disabilities.



Why Use Synthetic Speech for Audio Description and Alternative Text?

- Only a tiny amount of curriculum content and children's / family television is audio described. Synthetic speech production can vastly and quickly build capacity.
- The production of content using synthetic speech opens the doors to multiple, new barrier-free job categories.
- Audio Description improves comprehension (Cozendey & de Piedada Costa, 2016), foreign language acquisition (Herrero & Escobar, 2018) and intercultural competence (Vermeulen & Ibanez-Moreno, 2017).



Intended Audiences and Users for AD-optimized AI Speech:

- (1) Blind/low vision children
- (2) Students who are neurodiverse
- (3) English language learners



Goals for Our AD-optimized Speech R&D project

To determine the...

- Methods by which to improve the prosody component of natural speech.
- Means by which AI speech can create new career categories
- Comprehension improvement through more natural-sounding AI speech within audio descriptions and image descriptions.



Prosody: It's not what we say; it's how we say it.

Adjective + noun, declarative:

1. white duck
2. black cat
3. paper bag
4. oil change (i.e., automotive)
5. my turn



Prosody: It's not what we say; it's how we say it.

Adjective + noun, comparative:

1. *white* duck
2. *black* cat
3. *paper* bag
4. *oil* change (i.e., automotive)
5. *my* turn



Prosody: It's not what we say; it's how we say it.

Compound noun:

1. raging storm
2. bread knife
3. writing board
4. screen magnifier



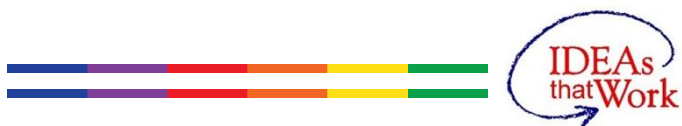
Prosody: It's not what we say; it's how we say it.

Declarative or emphatic?

- | | |
|---------------------------|--------------------------------|
| 1. It's also small. | It's also <i>small</i> . |
| 2. A checkered pattern. | A checkered <i>pattern</i> . |
| 3. The crocodile's teeth. | The crocodile's <i>teeth</i> . |
| 4. The northern region. | The <i>northern</i> region. |



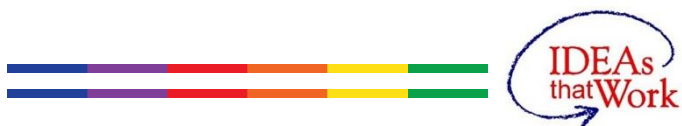
Prosody: Listen and look, 1 of 3



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Prosody: Listen and look, 2 of 3



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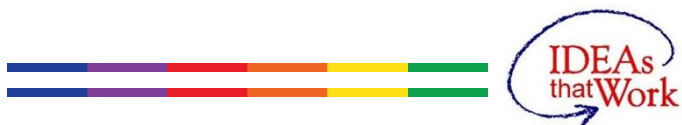


Annotating audio description scripts for natural speech:

1. Word prominence
 2. Word stress
 3. Pitch accents
 4. Phrase tones
 5. Break indices
- 0-4 rating system
 - Prosody coding protocols comparable to the International Phonetic Alphabet



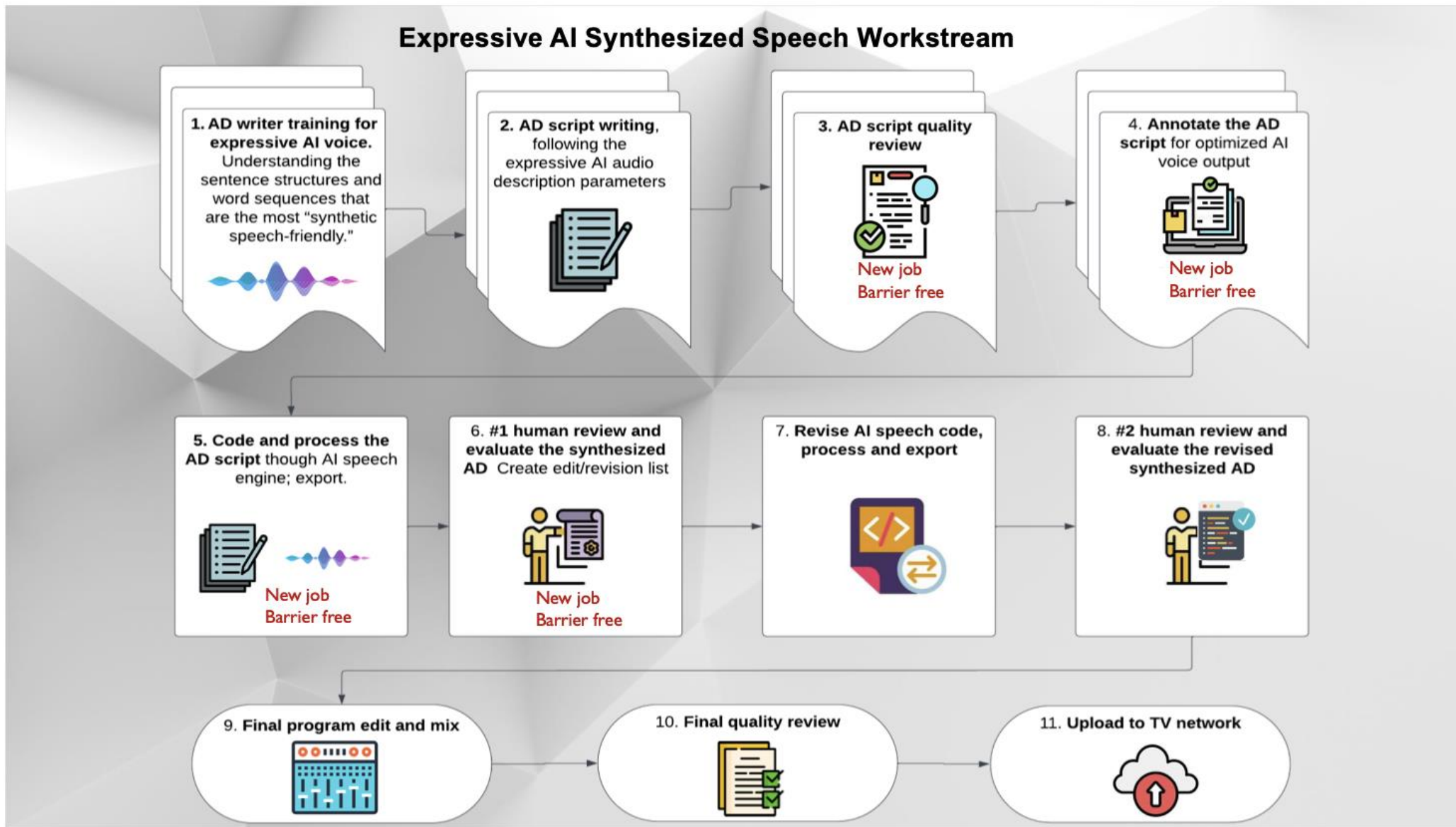
Prosody: Listen and look, 3 of 3



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Expressive AI Synthesized Speech Workstream



Audio Description and Synthetic Speech: A Prosodic Approach

For more information, contact
Matt Kaplowitz

mkaplowitz@bridgemultimedia.com



Question?



Resource Spotlight

- **Individuals with Disabilities Education Act (IDEA) website**

Brings together IDEA information and resources from the Department and its grantees.

<https://sites.ed.gov/idea/>

- **IDEAS That Work**

For information from research to practice initiatives funded by OSEP that address the provisions of IDEA and ESSA. This website includes resources, links, and other important information relevant to OSEP's research to practice efforts.

<https://osepideasthatwork.org/>

- **Clerc Center website**

www.clerccenter.gallaudet.edu/ndec

- **Clerc Center Online Community**

<https://clerccenter.force.com/>

- **Bridge Multimedia**

www.bridgemultimedia.com





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