# Using AI for Extensive Listening

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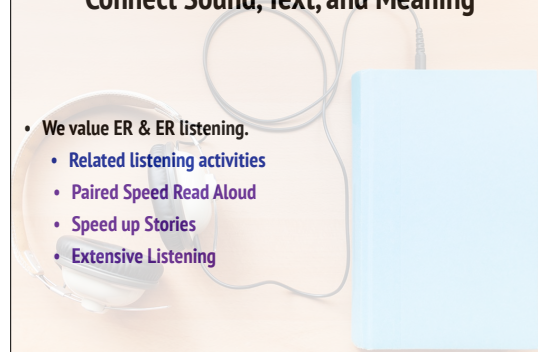Japan Women's University
ReadOasis.com

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## Connect Sound, Text, and Meaning

- To acquire language, we need to make phonetic connections.
  - Connect the phonetic code
    - To the written code.
      - To the meaning code
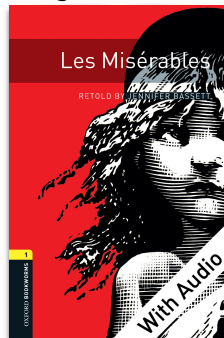
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## Connect Sound, Text, and Meaning

- We value ER & ER listening.
  - Related listening activities
  - Paired Speed Read Aloud
  - Speed up Stories
  - Extensive Listening

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## ER and Listening

- Use audio from graded readers
  - Delivery and cost issues.
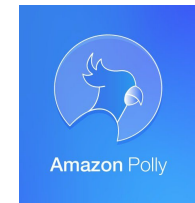  - Phones don't play CD's.

Les Misérables
RETOLD BY JENNIFER BASSETT
With Audio

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## ER and Listening

- We can make materials.
  - But it's time consuming.
  - It's hard to do well.
  - Good gear is expensive.

SHURE MV51

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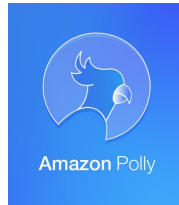## Extensive Listening and AI

- AI can make listening materials.
  - Get the right level of texts.
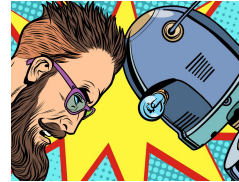  - AI makes the audio.

Amazon Polly

## Amazon Polly

- We can input text and export hight quality audio.
  - There's also a plugin.
  - Automatic audio for posts.


Amazon Polly

## Preliminary Experiment

- Compare human with AI voices.
  - Ask basic questions.
  - Check student responses.
  - 202 learners responded to our questionnaire.



## The Farmer and the Actor (Voice #1)

It was summer in Small-town. A famous actor was visiting from New York. He walked through the fields and enjoyed the beautiful sights. He loved the country. It was quiet. The air was clean and fresh. The scenery was beautiful, and the smells were delightful. He decided to spend his summer there. Every day he danced, sang, ate, drank, and enjoyed himself.

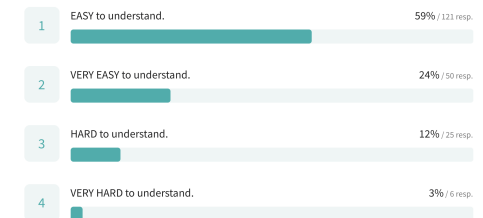## The Farmer and the Actor (Voice #2)

There was a simple farmer in Small-town. He worked hard, and he saw the actor relax and play. One day, the actor spoke to the farmer. "Please come and eat with me." "You work too hard." The farmer replied, "I am preparing my food for winter, and I recommend you do the same." But the actor answered, "Why worry about winter? We have got plenty of food today."

## The Farmer and the Actor (Voice #3)

The farmer smiled and shook his head. And he continued to work. Then winter came, and the actor had no food, money, or work. He saw the farmer. The farmer had enough food for his family. He also could sell food to others. Then the actor realized. It is always best to prepare for the future, so you can help yourself and others.

**Voice #1 is:**

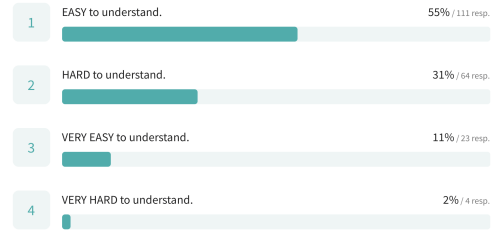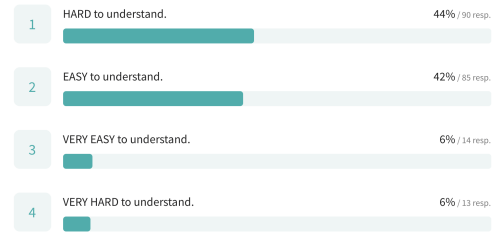202 out of 202 answered

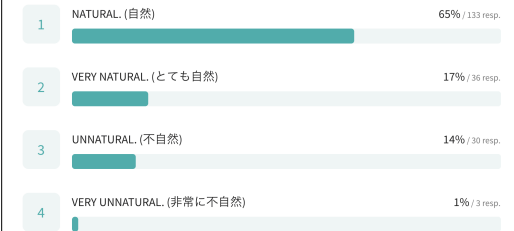| | | | |
|---|---|---|---|
| 1 | EASY to understand. | 59% | / 121 resp. |
| 2 | VERY EASY to understand. | 24% | / 50 resp. |
| 3 | HARD to understand. | 12% | / 25 resp. |
| 4 | VERY HARD to understand. | 3% | / 6 resp. |

## Voice #2 is:
202 out of 202 answered

| | | |
|---|---|---|
| 1 | EASY to understand. | 55% / 111 resp. |
| 2 | HARD to understand. | 31% / 64 resp. |
| 3 | VERY EASY to understand. | 11% / 23 resp. |
| 4 | VERY HARD to understand. | 2% / 4 resp. |

## Voice #3 is:
202 out of 202 answered

| | | |
|---|---|---|
| 1 | HARD to understand. | 44% / 90 resp. |
| 2 | EASY to understand. | 42% / 85 resp. |
| 3 | VERY EASY to understand. | 6% / 14 resp. |
| 4 | VERY HARD to understand. | 6% / 13 resp. |

## Voice #1 is:
202 out of 202 answered

| | | |
|---|---|---|
| 1 | NATURAL. (自然) | 65% / 133 resp. |
| 2 | VERY NATURAL. (とても自然) | 17% / 36 resp. |
| 3 | UNNATURAL. (不自然) | 14% / 30 resp. |
| 4 | VERY UNNATURAL. (非常に不自然) | 1% / 3 resp. |

## Voice #2 is:
202 out of 202 answered

| | | |
|---|---|---|
| 1 | NATURAL. (自然) | 70% / 142 resp. |
| 2 | VERY NATURAL. (とても自然) | 15% / 32 resp. |
| 3 | UNNATURAL. (不自然) | 12% / 25 resp. |
| 4 | VERY UNNATURAL. (非常に不自然) | 1% / 3 resp. |

## Voice #3 is:
202 out of 202 answered

| | | |
|---|---|---|
| 1 | NATURAL. (自然) | 64% / 130 resp. |
| 2 | VERY NATURAL. (とても自然) | 19% / 39 resp. |
| 3 | UNNATURAL. (不自然) | 14% / 30 resp. |
| 4 | VERY UNNATURAL. (非常に不自然) | 1% / 3 resp. |

## The SPEED of Voice #1 is:
202 out of 202 answered

| | | |
|---|---|---|
| 1 | just right | 78% / 158 resp. |
| 2 | too slow | 20% / 42 resp. |
| 3 | too fast | 1% / 2 resp. |
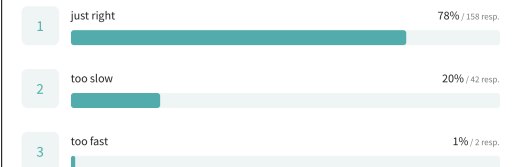
**The SPEED of Voice #2 is:**

202 out of 202 answered

| | | | |
|---|---|---|---|
| 1 | just right | | 77% / 157 resp. |
| 2 | too fast | | 18% / 37 resp. |
| 3 | too slow | | 4% / 8 resp. |

**The SPEED of Voice #3 is:**

202 out of 202 answered

| | | | |
|---|---|---|---|
| 1 | too fast | | 51% / 104 resp. |
| 2 | just right | | 48% / 97 resp. |
| 3 | too slow | | 0% / 1 resp. |
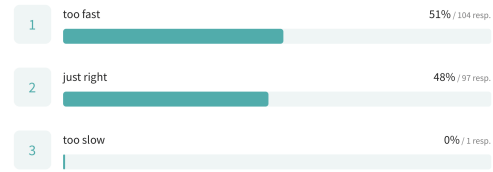
Which voice did you like best:

198 out of 202 answered

| | | | |
|---|---|---|---|
| 1 | Voice #1 | | 46% / 91 resp. |
| 2 | Voice #2 | | 40% / 80 resp. |
| 3 | Voice #3 | | 13% / 27 resp. |
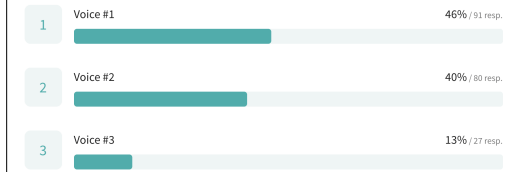
## EASY or HARD to Understand

| Voice | Easy | Hard |
|---|---|---|
| Voice #1 | 83 | 15 |
| Voice #2 | 66 | 33 |
| Voice #3 | 48 | 50 |
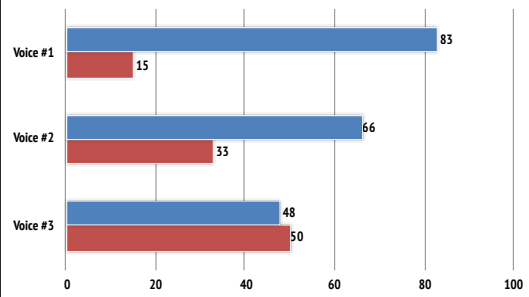
## NATURAL or UNNATURAL Sound

| Voice | Natural | Unnatural |
|---|---|---|
| Voice #1 | 82 | 15 |
| Voice #2 | 85 | 13 |
| Voice #3 | 83 | 15 |

## Speed

Voice #1   Voice #2   Voice #3

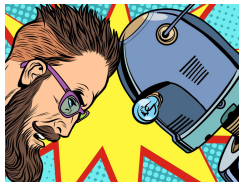| | Voice #1 | Voice #2 | Voice #3 |
|---|---|---|---|
| JUST RIGHT | 78 | 77 | 48 |
| TOO SLOW | 20 | 18 | 0 |
| TOO FAST | 1 | 4 | 51 |
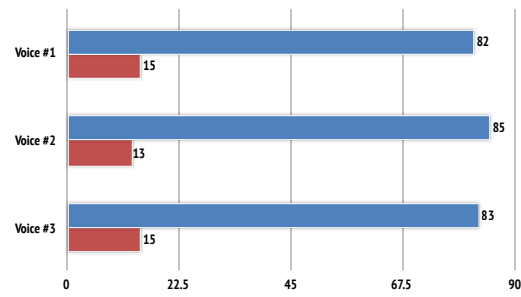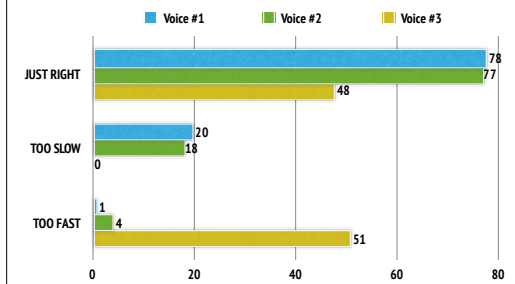
## Conclusions

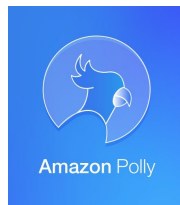- **We can use AI for ER listening.**
  - **The quality is high and getting higher.**
  - **AI was rated "more natural" than HI.**
  - **The main problem is speed.**



## Future Research

- **AI audio is good enough for real world practice.**
  - **Research questions**
  - **Do learners comprehend AI speech as well as HI speech?**
  - **Can learners improve their listening skills with AI?**


Amazon Polly

## Thank You

- **To get this talk:**
  - **www.ilinguist.net**
    - **Search for AI**


iLinguist