**Goal of the study:**

In this study, we are comparing user judgment in the appearance of caption with different qualities. While apprising users of probable deviation in the caption quality might have the potential to improve the usability of the caption (through the reduction in misinterpretation and misperception). Past research only focused on how textual deviancy or error may affect user perception or overwhelm user’s enthusiasm to watch a live TV program. But there are some other visual attributes that exist in caption quality which may be the reason for user’s dissatisfaction.

We are going to investigate 8 different properties of caption quality, namely:

1. Speaker Indicator Placement
2. Latency and No Speaker Indicator
3. Latency and number of Speakers
4. No punctuation and No Speaker Indicator
5. Background Speaker and Speaker Indicator Missing
6. Face Overlapping With Caption and Speaker Indicator Missing
7. Latency and Text Overlapping (Current News or Scrolling News)
8. Intermediate Latency and No Speaker Identifier

By studying these qualities, we want to answer this research question:

Q. What properties of the caption quality matter to Deaf and Hard of Hearing people?

**Study Setup**

Each participant will be assigned an id (p1, p2 and so on). The participants will see 12

videos and answer a series of questions. Questions will be asked in 1 setup:

In this setup, participants will see videos with different caption quality. The videos will be partitioned into 8 blocks containing 27 videos. In each block, participants will be shown videos with different distorted quality of caption. The choice of these caption quality will be arranged in a Latin square:

Participants BLOCK 1 BLOCK 2 BLOCK 3 BLOCK 4 BLOCK 5 BLOCK 6 BLOCK 7 BLOCK 8

1. BLOCK 1 BLOCK 2 BLOCK 3 BLOCK 4 BLOCK 5 BLOCK 6 BLOCK 7 BLOCK 8
2. BLOCK 8 BLOCK 1  BLOCK 2 BLOCK 3 BLOCK 4 BLOCK 5 BLOCK 6 BLOCK 7
3. BLOCK 7 BLOCK 8 BLOCK 1 BLOCK 2 BLOCK 3 BLOCK 4 BLOCK 5 BLOCK 6

… … … …

To conduct this study, you’ll need both a laptop and paper printouts of the questionnaire forms.

Please follow the instructions below:

**KEEP TRACK OF PARTICIPANT ID**

Each participant should be numbered incrementally from P1 to PN. Please keep track of the

participant ID. Please use this google spreadsheet to keep track of participants and the IDs

assigned to them: [**PARTICIPANT TRACKER SPREADSHEET**](https://docs.google.com/spreadsheets/d/1N_YJk8wyPgg2xzijFoWBQmQE07RmrsTSI9KtAIbxyt4/edit?usp=sharing)

**SETUP LAPTOP**

Download the Presentation file that is shared with you. Show the presentation and at the end of each slide ask participants to fill up the QUESTIONNAIRES form that has been provided.

**PREPARE THE PAPER QUESTIONNAIRES**

There are one paper questionnaire forms available for this study.

At the top of the form, please note down the participant id.

**INTRODUCE THE PARTICIPANTS TO THE STUDY**

Before administering the study, please take a moment to introduce the participant to the study.

For the study setup, you could say something like:

* Thank you for participating in this study! Today you will be shown a total of 23 videos with different types of captions in them.
* These captions have been generated manually by different organizations. But for our research, we changed the caption quality by our own.
* In this study, our goal is to understand which attributes of caption quality matters most while enjoying a live TV show. Because sometimes captions are not synced with the actual program timeline or sometimes caption stops users to see important contents, we need to find how these attributes are affecting user’s enthusiasm to watch a TV show.
* You will be randomly presented 7 different types of video along with the actual one shown in the TV show:
  + Speaker Indicator Placement
  + Latency and No Speaker Indicator
  + Latency and number of Speakers
  + No punctuation and No Speaker Indicator
  + Background Speaker and Speaker Indicator Missing
  + Face Overlapping With Caption and Speaker Indicator Missing
  + Latency and Text Overlapping (Current News or Scrolling News)
  + Intermediate Latency and No Speaker Identifier

o You will be then asked to answer some questions about the caption you’ll

see.

o Thank you again for participating. Do you have any questions for me?

**ADMINISTER THE STUDY**

After printing out the study questionnaires and setting up the laptop, you can hand the

materials to the participants and request them to start the study.