

# MotherTongues ReadAlong Storybooks Workshop

Presented by: The First Nation School Board – Yukon and the Yukon Native Language Centre

April 19, 2024

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## What is Readalong Studio?

Readalong Studio is a program (actually a collection of programs) to help you make and view online “read-along” and “sing-along” audiobooks for language and literacy education. As the audio plays, the word currently being spoken is highlighted, and the student can click on any word to hear it pronounced in isolation.

### Atikamekw Story

source: <https://atikamekw.atlas-ling.ca/lecture-audio/nikikw/>



You give the software two things, the text of the story, and an audio recording of someone speaking the story aloud. Inside, the software listens to the recording and tries to guess the exact time when each word starts and stops. (If you’ve ever used audio software like Audacity or ELAN, imagine measuring the exact time when every word starts and stops. You could totally do this, but it takes a long time and can be tedious; it usually takes about an hour to measure a minute of speech!) Our software’s guesses aren’t perfect, but it can make these guesses in seconds.

You do not need the internet to view ReadAlong Storybook files.

If the .html file is saved to your computer, you can view them in any web browser.

If you don’t have access to a website to post the ReadAlong on, you can distribute the .html files on USB sticks or as an email attachment. The entire ReadAlong is contained in one file. A five-page ReadAlong is approximately 8MB.

## ReadAlong Studio for Storybooks by Mothertongues

Link to create a ReadAlong - <https://readalong-studio.mothertongues.org/>

ReadAlong Studio is an online tool for creating and visualizing aligned audiobooks, including educational features like **time-aligned highlighting**, **playing single words in isolation**, and **variable-speed playback**. It is intended to be accessible to creators without an extensive background in speech, by automating or making optional many of the specialist steps in an alignment pipeline. It is well documented at a beginner-technologist level, has already been adapted to 30 languages, and can work out-of-the-box on many more languages without adaptation.

This tool was created by the National Research Council Indigenous Language Technology Project.

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<https://creativecommons.org/licenses/by-nc/4.0/>

More information on the MotherTongues ReadAlong Storybook Tool can be found at:

<https://nrc.canada.ca/en/research-development/research-collaboration/programs/readalong-studio-application-indigenous-audiobooks-videos-project>

## Install the FirstVoices Keyboard for Typing in First Nation languages

<https://ynlc.ca/fonts-keyboards/>

The YNLC website has the instructions and downloadable keyboard file that can be installed on your computer to type diacritics. Diacritics are letters with one or more accents. The keyboard was developed by FirstVoices. There are other keyboards available, but this is the only one that captures the diacritics for all 8 Yukon First Nation languages.

The Keyboard Shortcuts Instruction Sheet PDF is included with the files you received.

*(FirstVoices-Keyboard-Shortcuts.pdf)*

Diacritic Examples: é ı ä è

Note: Not all fonts work with diacritics. Use common fonts such as: arial, aptos, times new roman, or calibri. If you are typing and the diacritics are not aligned properly, you will need to change your font.

## Copyright and Consent for content in your ReadAlong Storybooks

We must be careful to only use content that we have permission to use.

**Audio (speakers)** – if you are not the speaker on the audio recording, you need to get Consent from the speaker to publish the storybook. The YNLC Consent form is included with the workshop files if you wish to publicly publish your storybook.

**Images** – You cannot use copyright images downloaded from the internet. If you do not know the source of the images, you cannot publish them. YNLC has a vast selection of free downloadable illustrations that you can use.

## Colour Illustrations from YNLC - Teacher Resources

Download Colour Illustrations to use in your storybooks from the Yukon Native Language Centre - Teacher Resources page: <https://ynlc.ca/teaching-resources/#illustrations-colour>

### **GIMP Image Editing Software Download and Instructional Videos:**

All the Colour Illustrations from YNLC can be easily edited and combined using free software called GIMP.

Download GIMP at: <https://www.gimp.org/downloads/>

GIMP Instructional videos on the YNLC website:

<https://ynlc.ca/teaching-resources/#how-to-use-gimp-to-use-and-edit-the-illustrations>

## Publishing your Storybooks

Internet is not needed to view the ReadAlong on a computer, laptop, tablet, or phone. The app produces one .html file that contains the ReadAlong. The file opens in your web browser.

After the last step in the ReadAlong, you download the 'Offline HTML' file. The file will show up in your 'Downloads' folder. Copy and paste the file to a folder on your computer.

### There are 3 ways to share a ReadAlong file with others:

1. Copy the .html file to a USB Stick
2. Email the .html file as an attachment
3. Upload the .html file to a website

### Publishing ReadAlong Storybooks to the public on the YNLC Website:

If you want to publish your ReadAlong for the public, YNLC will gratefully accept your file and post your storybook to the language resources page.

You will need to provide YNLC:

- 1 – the .html file
- 2 – a signed YNLC Consent form for each individual in the audio recording.

The YNLC Consent form is included with the files you were provided for this workshop.

## File Formats and Story Length

### Audio and Image File Formats

**Audio File Formats:** Use one audio file for the entire ReadAlong Storybook

Formats: .wav .mp3

**Image File Formats:** Use one image for each Page of the ReadAlong (optional)

Formats: .jpg .png .gif

### Language ReadAlong Text (Transcript):

Create a transcript that is the EXACT text spoken in the Audio recording in a Word (.docx) or Text (.txt) file.

There is no text formatting available (no bold, italics, headings, etc). If you are using a formatted Word document, when you copy/paste the text into the online tool, all formatting will be cleared.

**English Text:** It is optional to add English text to your ReadAlong. Prepare the English text separately from the FN language – e.g. Type the entire story in the language and then the entire subtitles in English. You will have to enter each line of English text individually.

### Story Length

**Storybooks shouldn't be too long.** Shorter stories (less than 5 minutes long) are more likely to align well, although this software has been successfully used for stories as long as 20 minutes.

It's important that the audio and the text correspond exactly (that there are no extraneous words in the text, no mis-speakings in the audio, etc.), and that the audio is relatively free of background noise.

Also, the software generally cannot handle numbers and symbols. It can guess that “S” sounds like “sssss” because that’s the same for a lot of languages, but it will never manage to guess that “\$634” sounds like “seiscientos treinta y cuatro dolares”, because that’s different in every language.

## Audio Files – Creating new and using existing files

You must have a transcript written in the language to follow when recording the audio

### Create a new Audio File for a ReadAlong

You can record the audio of a transcript in the ReadAlong program or you can record the audio ahead of time, if you have audio recording software on your computer.

Follow the transcript exactly. No coughs, umms, or extra words.

Do try to wait 2-3 seconds between sentences or the ReadAlong will have a hard time keeping up.

Don’t talk too fast.

The entire story needs to be in ONE AUDIO FILE.

If you cannot get through the entire story in one take, you can record more than one file, but the files will need to be combined/edited using software such as Audacity.

### Use an existing Audio file for a ReadAlong

If you already have ONE AUDIO FILE that matches the transcript for a story, you are ready to go.

If you have more than one audio file that makes up a story, you will need to combine the files into one.

You will need Audio editing software to combine the files.

**When you combine the individual files, leave 2-3 seconds between each file so the sentences do not run together.**

Audacity is free, open-source software that can combine audio files.

<https://www.audacityteam.org/>

## There are two ways to create a ReadAlong

1. Use existing audio and text that you have prepared ahead of time (This is the recommended option)
2. Create text and Audio from scratch using the online tool (Use this option if you don't have pre-recorded audio).

## Create a ReadAlong using EXISTING Audio, Image and Text files

Go to: <https://readalong-studio.mothersongues.org/>

### Step 1: Add Text and Audio file

#### Add your prepared Text (Transcript) for the entire ReadAlong in the left panel

- a) Click on 'Write' Tab if it isn't already selected.
- b) Open the Word or Text (Transcript) document on your computer.
- c) Copy all of the First Nation language text and Paste it into the 'Text' left panel. Ensure there are two lines (Enters) between each Page of the ReadAlong.

#### Add your prepared Audio File for the entire ReadAlong in the right panel

- d) Click on the 'File' Tab on the right.
- e) Click on 'Choose File', navigate to the Audio File on your computer and then click 'Open' button.

You should have text in the left panel and an audio file selected in the right panel.

1 Step 1

### Welcome to ReadAlong Studio

This is a tool to help you make your own interactive 'readalong' that highlights words as they are spoken. Have a look at [this example](#) what these are.

To get started making your own, read our [privacy and data sovereignty policy](#), then take a tour by clicking on the tour button below, and follow the steps below.

[Take the tour!](#)

### Select data to start creating your ReadAlong

In order to make a ReadAlong, we just need some **text**, and corresponding **audio**.

#### Text

1 - Click on 'Write' tab  
2 - Paste text for entire ReadAlong into the box below

Write or paste your text here

[Format](#) [Save a copy](#)

Gemômă' Kitty lidl' edân.  
Getsié' dūgedich.  
Getsié' súnēt'és etsets.  
Degôdé' deseda'.  
Detsūze dets'adé seh'an.

[Write](#) [File](#)

#### Audio

3 - Click on 'File' tab  
4 - Click on 'Choose File' below and select the Audio file for entire ReadAlong

Select an audio file

Use pre-recorded audio from an MP3 or WAV file.

[Choose File](#) kkz\_my-home\_acklack\_readalong.wav

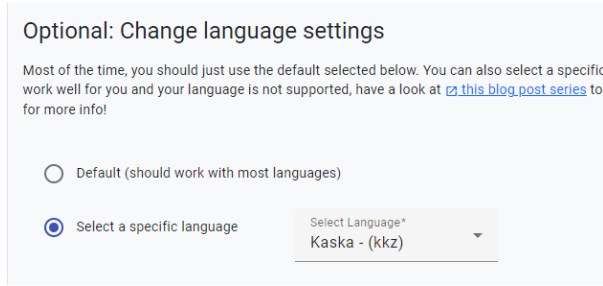
[Play](#) [Save a copy](#) [Delete](#)

[Record](#) [File](#)

**Great!**  
File kkz\_my-home\_acklack\_readalong.wav processed, but not uploaded. Your audio will stay on your computer.

## Step 2: Select language

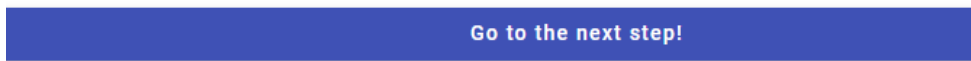
Click on ‘Select a specific language’ and then select the Yukon First Nation language you are using. All eight Yukon languages are in the dropdown list.



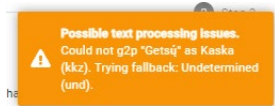
## Step 3: Align it!

Click on the ‘Go to the next step!’ blue button at the bottom of the page.

It may take up to a minute for the next step to show up. Wait patiently.



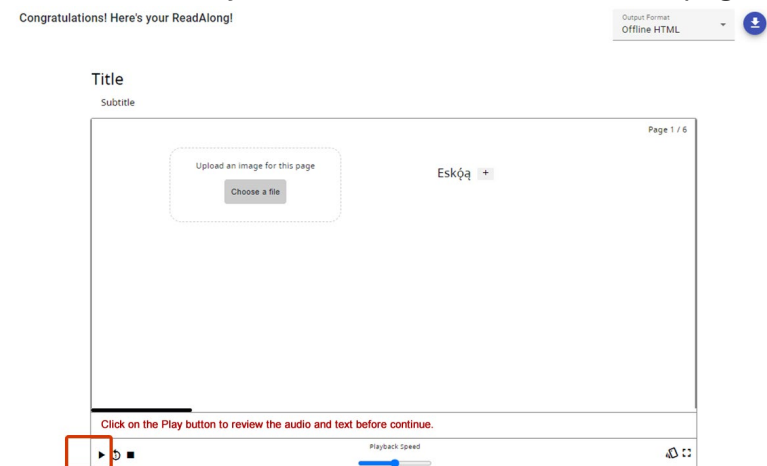
You may get an error message like this in the top right of your browser. Ignore the message and keep waiting to see if the processing works. If it works, carry on the Step 4. If it does not work, you will need to check the [Troubleshooting](#) section.



## Step 4: Review Audio and Text before you go any further

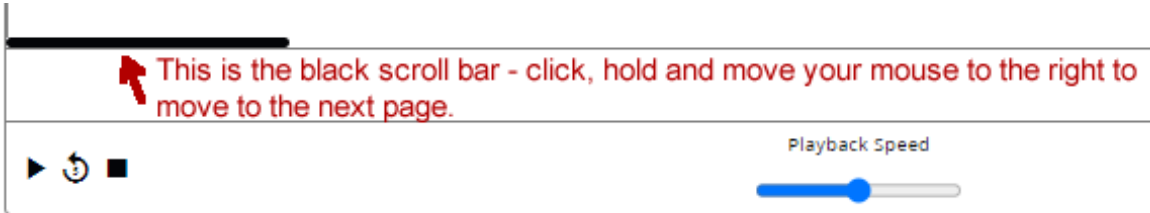
**IMPORTANT!** Before you go any further, check that your audio and text aligned properly. If you need to reload the audio or text, you will lose any of the changes done after this step if you need to reload the audio file or text.

Click on the ‘Play’ button at the bottom left of the page.



## Step 5: Add Title, Images and subtitle English Text (optional)

- Add a title in the 'Title' field at the top left of the window.
- Add a subtitle below the Title (optional).
- Upload one image from your computer, for each page of the ReadAlong.
- Click on 'Choose a file' button in the left panel and select the Title page image from your computer. (Image file format:.jpg, .png, .gif)
- To move to the next page, Click and hold the black scroll bar at the bottom of the page and move to the right. Repeat for each page of the ReadAlong.




- Add subtitles text (English text – optional):  
Subtitles must be added individually for each line of text.  
Click on the + icon to the right of the line of text.  
Paste or type the English subtitle into the smaller field below.

### Eskóq̃ - My Home

Enter a Title

by Josephine Acklack - Kaska (Ross River, Yukon) Enter a Subtitle

Page 2 / 6



Kes'ólé tses dekoq̃ kwedelé.

Lábát dédehdích yéh ts'at kī déseh'an.

Nédedáhhay yéh ǒgi gúsdli.

Kes'ólé tses dekoq̃ kwedelé. -  
*Kes'ólé is packing wood into his house.*

Lábát dédehdích yéh ts'at kī déseh'an.  
-  
*He is wearing mitts and also a toque.*

**Nédedáhhay** yéh ǒgi gúsdli. -  
*It is autumn and it's cold outside.*

**Optional: Add English subtitles for each line of text.**

**ReadAlong Player Viewing Options:**

**Player Controls:**  
Play/Pause button  
Replay back from 5 seconds ago  
Stop

**Buttons at the bottom right of the page can be used by everyone:** (left to right)  
Toggle subtitles on or off (hide/show)  
Change the background colour  
Make the ReadAlong appear full screen

Change the Playback Speed faster or slower.



## Step 6: Download it

The last step is to Download the ReadAlong Storybook to your computer.

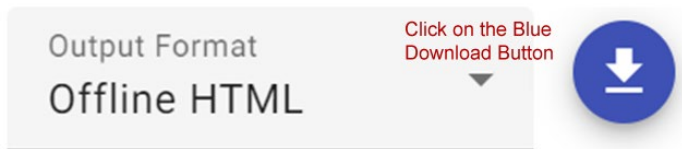
In the upper right corner of the window, check the Output Format is 'Offline HTML' (default option)

Click on the Blue Download Arrow.

The file will be on your computer in your 'Downloads' folder.

The file name will look similar to this: *'eskoa-my-home-20240410221030.html'*

The numbers on the end are the date and a random number.



You can choose one of several formats. We just want the default "Offline HTML" for now. That bundles all the text, audio, and images into a self-contained HTML file that you can put on a web page.

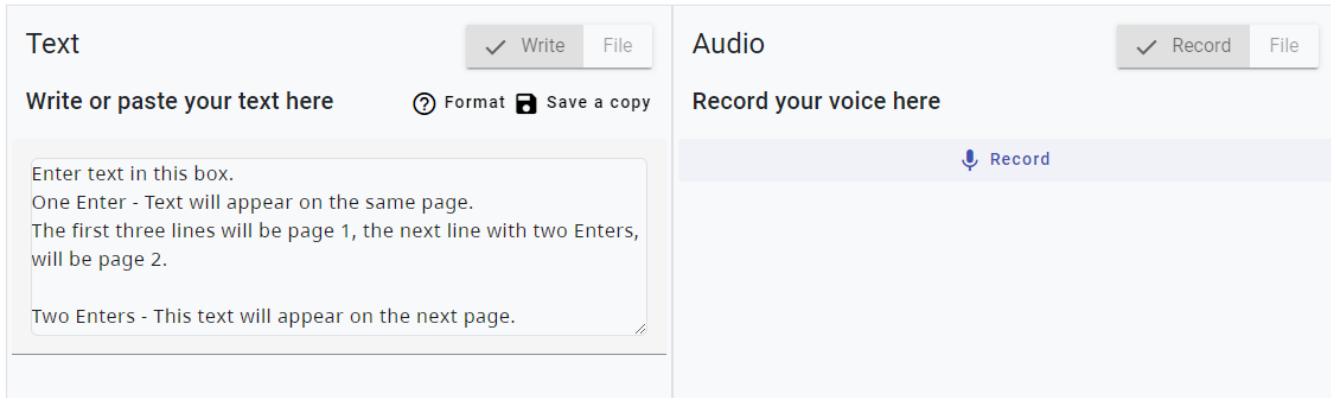
(The other formats are used for subtitling videos or for descriptive/academic research; they're not immediately relevant to the goals of this workshop.)

## Create a ReadAlong from Scratch, in the Online Tool

Go to: <https://readalong-studio.mothersongues.org/>

This method is not recommended for long stories, it is better to create the text and audio files before you use this online tool.

### Step 1: Enter some text in the left panel



If you want to have multiple lines on one "page" of your ReadAlong, use a single return (i.e., the "enter" key on your keyboard).

This will be a line of text in the language  
This will be another line on the same page

If you want to have multiple pages in your ReadAlong, **two returns will put the line on the next page.**

This will be a line

This will be a line on the next page

**When you are done adding text, SAVE this Text by clicking on 'Save a copy' button to download the.txt file to your computer. This text will not be saved in the browser.**

### Step 2: Record some audio

- a) In the right panel, Click on the 'Record' button.  
You may get a popup asking to Allow MotherTongues to use your Microphone: Select 'Allow on every visit'
- b) Wait 2-3 seconds before you start speaking.
- c) Speak following the transcript exactly.
- d) Click on the 'Stop' button when you are done.
- e) **Click on 'Save a copy' if you want to keep an .mp3 file of the recording. If you don't do this, the recording will not be saved.**
- f) Click on the 'Play' button to listen to your recording. If it is good, go to Step 3.  
If not, click on 'Delete and re-record' button.

## Tips:

Wait 2 seconds before starting to speak after you click the 'Record' button.

Press 'Play' button to listen to what you recorded.

## Notes about Audio Recordings:

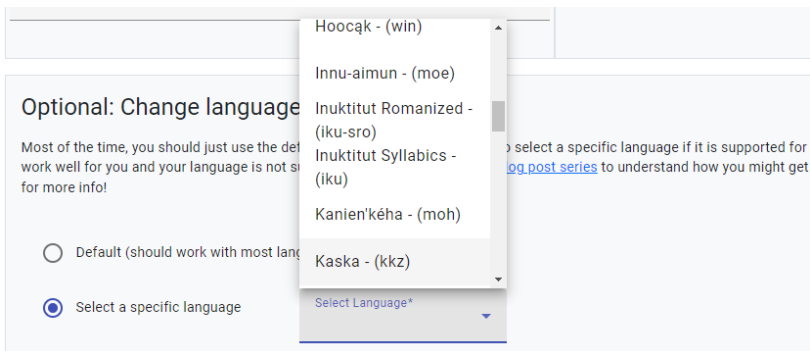
Background noise may hinder the ReadAlong.

Do not add any extra words while speaking. The text (transcript) must match the audio recording exactly. (No: umms, coughs, extra words)

**This Audio recording only exists in your browser temporarily, and if you close the window it'll be lost. Use the "Save a copy" button to Save the audio recording to your computer.**

## Step 3: Select your language

Click on 'Select a specific language' and then select the Yukon First Nation language you are using. All eight Yukon languages are in the dropdown list.



## Step 4: Align it!

Click "Go to the next step" blue button at the bottom of the page.

go to the next step!

The software will then attempt to align the text you entered with the recording you made. On the next page you should see a ReadAlong, press play to see how well it aligned!

If the alignment fails and you get an error message, or if the resulting alignments are poor quality, here are some of the most common problems:

Audio and text that don't exactly correspond (for example, something is in the text that wasn't read aloud)

Too long of a story (once you get up past 10 minutes, errors become more common)

Numbers and symbols in the text

Background noise

These issues are explained further in [Troubleshooting](#)

## Step 5: Review Audio and Text before you go any further

IMPORTANT! Before you go any further, check that your audio and text aligned properly. If you need to reload the audio or text, you will lose any of the changes done after this step.

Click on the 'Play' button at the bottom left of the page.

Congratulations! Here's your ReadAlong!

Output Format  
Offline HTML



Title

Subtitle

Page 1 / 6

Upload an image for this page

Choose a file

Eskôqâ +

Click on the Play button to review the audio and text before continue.

Playback Speed

## Step 6: Add Title, Images and subtitle English Text (optional)

- Add a title in the 'Title' field at the top left of the window.
- Add a subtitle below the Title (optional).
- Upload one image from your computer, for each page of the ReadAlong.
- Click on 'Choose a file' button in the left panel and select the Title page image from your computer. (Image file format:.jpg, .png, .gif)
- To move to the next page, Click and hold the black scroll bar at the bottom of the page and move to the right. Repeat for each page of the ReadAlong.

This is the black scroll bar - click, hold and move your mouse to the right to move to the next page.

Playback Speed


- Add subtitles text (English text – optional):  
Subtitles must be added individually for each line of text.  
Click on the + icon to the right of the line of text.  
Paste or type the English subtitle into the smaller field below.

# Eskq̄a - My Home

Enter a Title

by Josephine Acklack - Kaska (Ross River, Yukon) Enter a Subtitle

Page 2 / 6



Kes'ólé tses deq̄a kwedelé.  
Lābāt dédehdích yéh ts'āt k'ī déseh'an.  
Nédedáhhay yéh ǫgi gúsdli.

Kes'ólé tses deq̄a kwedelé.   
*Kes'ólé is packing wood into his house.*

Lābāt dédehdích yéh ts'āt k'ī déseh'an.   
*He is wearing mitts and also a toque.*

Nédedáhhay yéh ǫgi gúsdli.   
*It is autumn and it's cold outside.*

Optional: Add English subtitles for each line of text.

Add an image for each page

ReadAlong Player Viewing Options:

Player Controls:  
Play/Pause button  
Replay back from 5 seconds ago  
Stop

Buttons at the bottom right of the page can be used by everyone: (left to right)  
Toggle subtitles on or off (hide/show)  
Change the background colour  
Make the ReadAlong appear full screen

Change the Playback Speed faster or slower.

## Step 7: Download it

The last step is to Download the ReadAlong Storybook to your computer.

In the upper right corner of the window, check the Output Format is 'Offline HTML' (default option)

Click on the Blue Download Arrow.


The file will be on your computer in your 'Downloads' folder.

The file name will look similar to this: 'eskoa-my-home-20240410221030.html'

The numbers on the end are the date and a random number.

Output Format  
Offline HTML

Click on the Blue Download Button



You can choose one of several formats. We just want the default "Offline HTML" for now. That bundles all the text, audio, and images into a self-contained HTML file that you can put on a web page.

## Troubleshooting

If your readalong didn't align, or the alignments were of poor quality, here are some things to check.

### Story length

It works best if the story is less than 5 minutes long. (It can potentially handle longer, we've had people use it for stories up to 20 minutes before. But for this tutorial, it's better if you have something short.)

### Make sure the text and audio correspond exactly

Also, be very sure that what's being said is exactly what's written. If there's stuff in the text that the person didn't read (like page numbers, chapter titles, or translations), or stuff in the recording that wasn't in the text (like the person saying something twice or making a mistake), then our software will have trouble with it.

Unlike a human, the software doesn't have a sense of relevance. It can't look at something and say "Oh, that word wasn't important, it's okay that wasn't read aloud" or "That was obviously just a mistake in speaking"; it's very literal about things. So if you ask it to align text and audio that aren't actually the same, it'll try to do exactly what you told it to, and get wrong answers or no answers at all.

### Check for numbers and symbols

This software doesn't know how to pronounce numbers in your language — it can only guess how to pronounce things made of letters. (It doesn't know how to pronounce "634" in all the languages of the world, that would be impossibly hard to specify. You would have to write it out as whatever 634 is in your language, like in Spanish you would have to write "seiscientos treinta y cuatro" instead.)

It also can't know how to pronounce things like "\$" as whatever your word for dollar is, "%" as whatever your word for percent is, etc.

Think of this software as if it's someone who *doesn't* speak your language, but is reasonably smart about what letters sound like in many languages. If I gave you the text "seiscientos treinta y cuatro dolares" and a recording of that, and asked you to tell me when exactly each word was spoken, you could totally do this even if you had never heard a word of Spanish in your life. If I gave you the text "\$634", you wouldn't be able to do it except if you spoke Spanish, you just wouldn't know what each number sounded like.

### Check for background noise

Check whether there's a lot of background noise, like a loud fan, people talking in the background, etc. Those can mislead the software because it has trouble hearing the speech, or gets confused who it's supposed to be listening to.

### Browser compatibility issues

The ReadAlongs that get created by the Studio should work on most browsers, even relatively old ones. However, the ReadAlong Studio web app, the app that is used to create ReadAlongs, requires a recent up-to-date browser. If the app fails to load in your default browser, please install the latest version of Chrome, and things should work there.

### Device compatibility issues

The technology is quite portable, working on most devices including phones, but to create ReadAlongs, you need a laptop or computer.