Here we provide the JavaScript codes developed by our team to perform the BTACT (Brief Test of Adult Cognition by Telephone) via Qualtrics Survey (instead of using telephone).

You are going to hear a list of 15 words. Listen carefully. When the list is finished, you are to repeat as many of the words as you can remember. It doesn't matter in what order you repeat them. Just try to remember as many as you can. You will hear each word only one time. You will have up to one and a half minutes (90 seconds).

Please press "Play" below to hear the audio. When the audio has finished, click the "Next" button to proceed to the next page where the recording for your responses will begin after 1 second.

We suggest that you close your eyes while you are listening to the audio to help you concentrate.

NOTE: On the pages where your audio response is being recorded, the page will automatically progress after the allotted time has finished.

Please do not refresh/reload the page after the recording has begun.



```
Qualtrics.SurveyEngine.addOnload(function()
       var play = document.querySelector('.play');
//var pause = document.guerySelector('.pause');
var audio = document.getElementById('player');
var LOG = true; // logging to debug
var AutoplayEnabled = false;
var text = "The audio has ended."
function play audio() {
       LOG && console.log("Audio started playing")
       audio.play();
}
play.onclick = function(){
       play_audio();
}
pause.onclick = function(){
  LOG && console.log("Paused");
  audio.pause();
}
*/
audio.onended = function() {
LOG && console.log("Audio is completed")
play.disabled = true;
//pause.disabled = true;
document.getElementById("text").innerHTML = text;
```

```
if(AutoplayEnabled){
    setTimeout(function(){ // Autoplay after 2 seconds after page load
    LOG && console.log("AutoPlay Started");
    play_audio();
    }, 2000);
}
```

## BEGIN.

```
Qualtrics.SurveyEngine.addOnload(function()
       var recordingStarted = "<b><font color='red'>Recording started.</font></b>"
  var recordingFinished = "Recording has ended." + 'Please click the <span
style="color: rgb(255, 140, 0);">"Next"</span> button to proceed.'
       var midRecordingMsg = "<b><font color='red'>Please allow for full 90 seconds to elapse, after which you can
proceed..</font></b>";
       var that = this;
       this.hideNextButton();
       /* getUserMedia is forked for multiple browser versions*/
navigator.getUserMedia = ( navigator.getUserMedia | |
            navigator.webkitGetUserMedia | |
            navigator.mozGetUserMedia ||
            navigator.msGetUserMedia);
//var stop = document.querySelector('#stopButton');
//var stop = document.getElementById("stopButton");
var isRecordingCompleted = false;
// disable stop button while not recording
//stop.disabled = true;
//main block for doing the audio recording
if (navigator.getUserMedia) {
 console.log('getUserMedia supported.');
 var constraints = { audio: true };
 var chunks = [];
 var onSuccess = function(stream) {
 var mediaRecorder = new MediaRecorder(stream);
```

```
function record() {
   mediaRecorder.start(90000);
   console.log(mediaRecorder.state);
         document.getElementById("text").innerHTML = recordingStarted;
   console.log("recorder started");
         var aud = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_0p29hPTcJAU9DJb');
               aud.volume = 0.5;
               aud.play();
         (function()
         document.getElementById("midMsg").innerHTML = midRecordingMsg;
         }).delay(45);
         (function()
//
       that.showNextButton();
                       that.clickNextButton();
               }
        ).delay(95);
             stop.disabled = false;
  }
               setTimeout(function(){
     record();
    }, 1000);
/* stop.onclick = function() {
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   mediaRecorder.stop();
   console.log(mediaRecorder.state);
   console.log("recorder stopped");
   stop.style.background = "";
   stop.disabled = true;
  }
*/
  mediaRecorder.onstop = function(e) {
   console.log("MediaRecorder.stop() called.");
               var aud1 = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_5olUCq0oC8qHO4d');
               aud1.volume = 0.5;
               aud1.play();
   var blob = new Blob(chunks, { 'type' : 'audio/ogg; codecs=opus' });
   var audioURL = window.URL.createObjectURL(blob);
   //convert current time as a string to use to rename the blob
   var current date = new Date();
   var dd = current_date.getDate();
```

```
var mm = current_date.getMonth()+1;
var yyyy = current_date.getFullYear();
var hh = current_date.getHours()
var mi = current_date.getMinutes()
var ss = current_date.getSeconds()
if(dd<10)
dd='0'+dd
if(mm<10)
mm='0'+mm
if(hh<10)
hh='0'+hh
if(mi<10)
mi='0'+mi
if(ss<10)
ss='0'+ss
current_date = mm+'_'+dd+'_'+yyyy+'_'+hh+mi+ss;
//Save the blob file to Dropbox
var xhr = new XMLHttpRequest();
xhr.onload = function() {
 /* if (xhr.status === 200) {
    var fileInfo = JSON.parse(xhr.response);
    // Upload succeeded. Do something here with the file info.
  }
  else {
    var errorMessage = xhr.response | | 'Unable to upload file';
    // Upload failed. Do something here with the error.
 }*/
};
}));*/
     var encdata = window.btoa("
xhr.open('POST',
xhr.setRequestHeader('
     xhr.setRequestHeader('
     xhr.setRequestHeader('Filename', 'Word_List_Recall');
xhr.send(blob);
console.log("file sent");
```

```
}
  mediaRecorder.ondataavailable = function(e) {
   if (!isRecordingCompleted){
    isRecordingCompleted = true;
    console.log("timeslice end")
    console.log("blob size "+e.data.size)
    chunks.push(e.data);
    console.log("wav data saved");
                mediaRecorder.stop();
//
      stop.click();
   }
   console.log("blob size "+e.data.size)
   chunks.push(e.data);
   console.log("wav data saved")
 }
 var onError = function(err) {
  console.log('The following error occured: ' + err);
 }
 navigator.getUserMedia(constraints, onSuccess, onError);
} else {
 console.log('getUserMedia not supported on your browser!');
}
});
```

	On the next page, you are going to hear some strings of numbers, and when the <u>audio finishes</u> , we would like you to type them in backwards, in the reverse order from which you heard them. So if you hear "3,8", you would type "8,3" (separated by commas and no spaces). The sets will get larger as they go.
	Please remember NOT to use any paper, pencil, or other recording medium for the following tasks.
	After typing each response, please click on the "Next" button to proceed.
	Page Break
	Play
(	Qualtrics.SurveyEngine.addOnload(function()
{	
	var play = document.querySelector('.play');

```
//var pause = document.querySelector('.pause');
var audio = document.getElementById('player');
var LOG = true; // logging to debug
var AutoplayEnabled = false;
var text = "The audio has ended."
function play_audio() {
        LOG && console.log("Audio started playing")
        audio.play();
}
play.onclick = function(){
        play_audio();
}
/*
pause.onclick = function(){
  LOG && console.log("Paused");
  audio.pause();
}
*/
audio.onended = function() {
 LOG && console.log("Audio is completed")
 play.disabled = true;
 //pause.disabled = true;
 document.getElementById("text").innerHTML = text;
}
if(AutoplayEnabled){
 setTimeout(function(){ // Autoplay after 2 seconds after page load
   LOG && console.log("AutoPlay Started");
   play_audio();
}, 2000);
}
});
```

Q181	Now you are going to be given a category and you will name things that belong in that category. For example, if the category was "fruit," you could say things like "peach" or "pear."
♦	In a moment you will be given a <i>different</i> category. When you see "Begin," you will name all the things from this new category you can think of, as fast as you can. You will have one minute ( <b>60 seconds</b> ) to do this.
	When you proceed to the next page the recording will begin after 3 seconds.
$\hookrightarrow$	
$\hookrightarrow$	
	Page Break
	The new category is Animals BEGIN.
Q182	
*	
JS	
	SurveyEngine.addOnload(function()
{	
	r recordingStarted = " <b><font color="red">The recording has started. </font></b> " ordingFinished = "Recording has ended"
V	or that = this;
th	is.hideNextButton();
// th	is.showNextButton().delay(63);
/*	getUserMedia is forked for multiple browser versions*/
navigator.	getUserMedia = ( navigator.getUserMedia
	navigator.webkitGetUserMedia
	navigator.mozGetUserMedia    navigator.msGetUserMedia);
//var ston	= document.querySelector('.stop');
-	rdingCompleted = false;
// disable	stop button while not recording
	abled = true;
//main blo	ock for doing the audio recording
if (navigat	or.getUserMedia) {

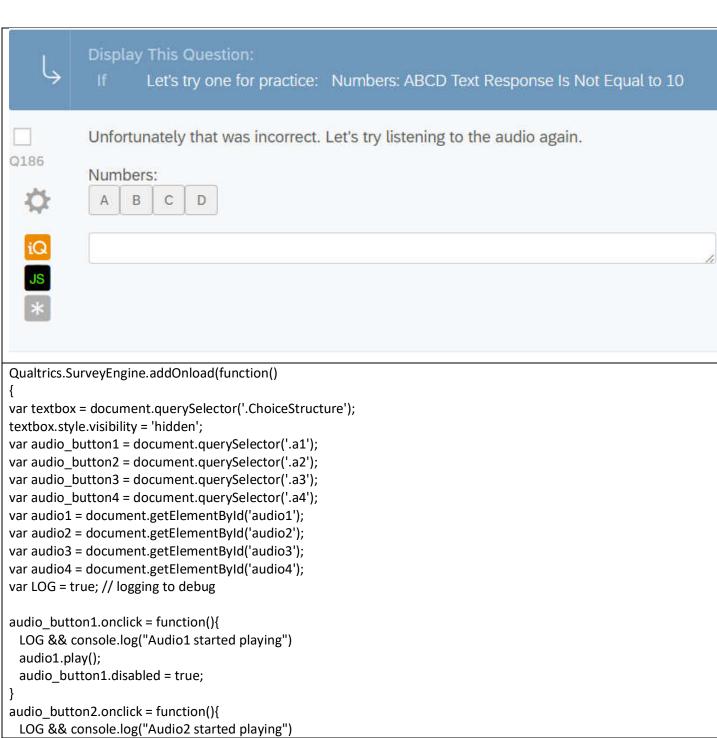
```
console.log('getUserMedia supported.');
 var constraints = { audio: true };
 var chunks = [];
 var onSuccess = function(stream) {
  var mediaRecorder = new MediaRecorder(stream);
 function record() {
   mediaRecorder.start(60000);
   console.log(mediaRecorder.state);
         document.getElementById("text").innerHTML = recordingStarted;
   console.log("recorder started");
         var aud = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F 0p29hPTcJAU9DJb');
               aud.volume = 0.5;
               aud.play();
               setTimeout(function(){
//
//
                       mediaRecorder.stop();
//
      }, 59000);
        (function()
                       that.clickNextButton();
        ).delay(65);
 // stop.disabled = false;
  }
               setTimeout(function(){
     record();
    }, 1000);
/* stop.onclick = function() {
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   mediaRecorder.stop();
   console.log(mediaRecorder.state);
   console.log("recorder stopped");
   stop.style.background = "";
   stop.disabled = true;
*/
  mediaRecorder.onstop = function(e) {
   console.log("MediaRecorder.stop() called.");
               var aud1 = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_5olUCq0oC8qHO4d');
               aud1.volume = 0.5;
                aud1.play();
```

```
var blob = new Blob(chunks, { 'type' : 'audio/ogg; codecs=opus' });
   var audioURL = window.URL.createObjectURL(blob);
   //convert current time as a string to use to rename the blob
   var current_date = new Date();
   var dd = current date.getDate();
   var mm = current_date.getMonth()+1;
   var yyyy = current date.getFullYear();
   var hh = current_date.getHours()
   var mi = current date.getMinutes()
   var ss = current_date.getSeconds()
   if(dd<10)
    dd='0'+dd
   if(mm<10)
    mm='0'+mm
   if(hh<10)
    hh='0'+hh
   if(mi<10)
    mi='0'+mi
   if(ss<10)
    ss='0'+ss
   current_date = mm+'_'+dd+'_'+yyyy+'_'+hh+mi+ss;
   //Save the blob file to Dropbox
   var xhr = new XMLHttpRequest();
   xhr.onload = function() {/*
     if (xhr.status === 200) {
       var fileInfo = JSON.parse(xhr.response);
       // Upload succeeded. Do something here with the file info.
     }
     else {
       var errorMessage = xhr.response || 'Unable to upload file';
       // Upload failed. Do something here with the error.
     }*/
  };
/*
         var encdata = window.btoa(
   xhr.open('POST',
         xhr.setRequestHeader(
```

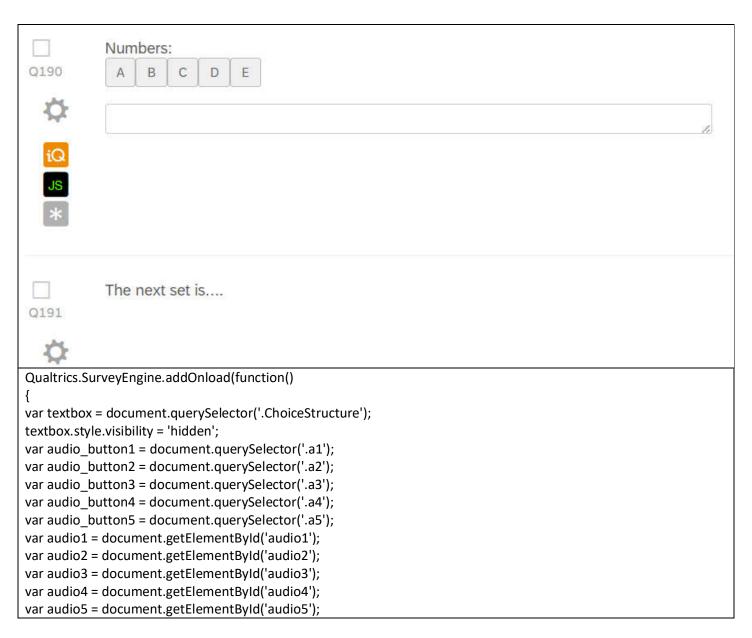
```
xhr.setRequestHeader(
   xhr.setRequestHeader(
   xhr.send(blob);
   console.log("file sent")
  }
  mediaRecorder.ondataavailable = function(e) {
   if (!isRecordingCompleted){
    isRecordingCompleted = true;
    console.log("timeslice end")
    console.log("blob size "+e.data.size)
    chunks.push(e.data);
    console.log("wav data saved")
    //stop.click();
                mediaRecorder.stop();
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   }
   console.log("blob size "+e.data.size)
   chunks.push(e.data);
   console.log("wav data saved")
  }
 }
 var onError = function(err) {
  console.log('The following error occured: ' + err);
 }
 navigator.getUserMedia(constraints, onSuccess, onError);
} else {
 console.log('getUserMedia not supported on your browser!');
});
```

Q183	In the next exercise you will hear a series of numbers that may get larger or smaller in value. At the end you will try to figure out what the next number would be. So if the numbers were 2, 4, 6, 8, 10, the next number would be 12.  Please click on the buttons A-E (in alphabetical order) to listen to each recording in the sequence one after the other. You will not be able to replay the audio, but you may take as much time as you need inbetween each number. At the end you will be asked what you think the next number would be. You will type your response into the available text field and then click the "Next" button to submit each response.  Please click the "Next" button to continue.
Q184	Let's try one for practice:  Numbers:  A B C D
iQ Js *	
{ var textbo textbox.st var audio_ var audio_ var audio_ var audio1 var audio2 var audio3 var audio3 var audio4	surveyEngine.addOnload(function()  x = document.querySelector('.ChoiceStructure'); yle.visibility = 'hidden'; button1 = document.querySelector('.a1'); button2 = document.querySelector('.a2'); button3 = document.querySelector('.a3'); button4 = document.querySelector('.a4'); = document.getElementById('audio1'); = document.getElementById('audio2'); = document.getElementById('audio3'); = document.getElementById('audio4'); true; // logging to debug
LOG && audio1.p audio_bu } audio_but LOG && audio2.p audio_bu } audio_but	utton1.disabled = true; ton2.onclick = function(){ console.log("Audio2 started playing")
audio3.p	

```
audio_button3.disabled = true;
}
audio_button4.onclick = function(){
  LOG && console.log("Audio4 started playing")
  audio4.play();
  audio_button4.disabled = true;
}
audio4.onended = function() {
  textbox.style.visibility = 'visible';
}
});
```



```
audio2.play();
audio_button2.disabled = true;
}
audio_button3.onclick = function(){
  LOG && console.log("Audio3 started playing")
  audio3.play();
  audio_button3.disabled = true;
}
audio_button4.onclick = function(){
  LOG && console.log("Audio4 started playing")
  audio4.play();
  audio_button4.disabled = true;
}
audio4.onended = function() {
  textbox.style.visibility = 'visible';
}
});
```



```
var LOG = true; // logging to debug
audio button1.onclick = function(){
 LOG && console.log("Audio1 started playing")
 audio1.play();
  audio_button1.disabled = true;
audio_button2.onclick = function(){
 LOG && console.log("Audio2 started playing")
  audio2.play();
 audio_button2.disabled = true;
audio_button3.onclick = function(){
 LOG && console.log("Audio3 started playing")
 audio3.play();
  audio_button3.disabled = true;
}
audio_button4.onclick = function(){
 LOG && console.log("Audio4 started playing")
 audio4.play();
  audio_button4.disabled = true;
audio_button5.onclick = function(){
 LOG && console.log("Audio5 started playing")
 audio5.play();
  audio_button5.disabled = true;
audio5.onended = function() {
textbox.style.visibility = 'visible';
});
```

Q199	Next, we would like to see how fast you can count backwards. When you are given the signal to begin, start counting backwards from 100 out loud, as fast as you can. So you will say 100, 99, 98 and so on.		
₽	When you proceed to the next page, the recording will begin in 1 second. You will have half a minute (30 seconds). The task will automatically end when the time expires.		
20 M W M M M M M M M	Page Break		
Q200	BEGIN.		
₽			
JS			
Qualtrics.S	Qualtrics.SurveyEngine.addOnload(function()		

```
var recordingStarted = "<b><font color='red'>The recording has started</font></b>";
  var recordingFinished = "Recording has ended";
       var that = this;
       this.hideNextButton();
// this.showNextButton.delay(33);
       /* getUserMedia is forked for multiple browser versions*/
navigator.getUserMedia = ( navigator.getUserMedia | |
            navigator.webkitGetUserMedia | |
            navigator.mozGetUserMedia | |
            navigator.msGetUserMedia);
//var stop = document.querySelector('.stop');
var isRecordingCompleted = false;
// disable stop button while not recording
//stop.disabled = true;
//main block for doing the audio recording
if (navigator.getUserMedia) {
 console.log('getUserMedia supported.');
 var constraints = { audio: true };
 var chunks = [];
 var onSuccess = function(stream) {
  var mediaRecorder = new MediaRecorder(stream);
 function record() {
   mediaRecorder.start(30000);
   console.log(mediaRecorder.state);
         document.getElementById("text").innerHTML = recordingStarted;
   console.log("recorder started");
         var aud = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_0p29hPTcJAU9DJb');
               aud.volume = 0.5;
               aud.play();
//
         setTimeout(function(){
//
                       mediaRecorder.stop();
//
      }, 29000);
                (function()
                               that.clickNextButton();
                ).delay(33);
 // stop.disabled = false;
```

```
}
               setTimeout(function(){
    record();
    }, 1000);
  stop.onclick = function() {
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   mediaRecorder.stop();
   console.log(mediaRecorder.state);
   console.log("recorder stopped");
   stop.style.background = "";
   stop.disabled = true;
 }
*/
  mediaRecorder.onstop = function(e) {
   console.log("MediaRecorder.stop() called.");
               var aud1 = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_5olUCq0oC8qHO4d');
               aud1.volume = 0.5;
               aud1.play();
   var blob = new Blob(chunks, { 'type' : 'audio/ogg; codecs=opus' });
   var audioURL = window.URL.createObjectURL(blob);
   //convert current time as a string to use to rename the blob
   var current_date = new Date();
   var dd = current_date.getDate();
   var mm = current_date.getMonth()+1;
   var yyyy = current_date.getFullYear();
   var hh = current_date.getHours()
   var mi = current_date.getMinutes()
   var ss = current_date.getSeconds()
   if(dd<10)
    dd='0'+dd
   if(mm<10)
    mm='0'+mm
   if(hh<10)
    hh='0'+hh
   if(mi<10)
    mi='0'+mi
   if(ss<10)
    ss='0'+ss
   current_date = mm+'_'+dd+'_'+yyyy+'_'+hh+mi+ss;
   //Save the blob file to Dropbox
   var xhr = new XMLHttpRequest();
   xhr.onload = function() {/*
```

```
if (xhr.status === 200) {
       var fileInfo = JSON.parse(xhr.response);
       // Upload succeeded. Do something here with the file info.
     }
     else {
       var errorMessage = xhr.response || 'Unable to upload file';
       // Upload failed. Do something here with the error.
     }*/
   };
*7
        var encdata = window.btoa(
   xhr.open('POST',
        xhr.setRequestHeader(
        xhr.setRequestHeader(
   xhr.setRequestHeader(
   xhr.send(blob);
   console.log("file sent")
  }
  mediaRecorder.ondataavailable = function(e) {
   if (!isRecordingCompleted){
    isRecordingCompleted = true;
    console.log("timeslice end")
    console.log("blob size "+e.data.size)
    chunks.push(e.data);
    console.log("wav data saved")
    //stop.click();
               mediaRecorder.stop();
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   console.log("blob size "+e.data.size)
   chunks.push(e.data);
   console.log("wav data saved")
 }
}
var onError = function(err) {
  console.log('The following error occured: ' + err);
}
```

```
navigator.getUserMedia(constraints, onSuccess, onError);
} else {
 console.log('getUserMedia not supported on your browser!');
}
});
           Do you remember the very first list of 15 words that you heard in the beginning? It was the very first task
           that you did.
0202
           We would like you to tell us as many of the words from that list as you can. You will have up to one
           minute (60 seconds) to do so.
           When you proceed to the next page, the recording will begin after 1 second.
                                                                            ----- Page Break
           BEGIN.
Q203
Qualtrics.SurveyEngine.addOnload(function()
        var recordingStarted = "<b><font color='red'>The recording has started</font></b>.";
  var recordingFinished = "Recording has ended";
        var midMsg = "<b><font color='red'>Please allow for the full 60 seconds to elapse and you will be able to
proceed</font></b>";
        var that = this;
        this.hideNextButton();
 // this.showNextButton.delay(63);
        /* getUserMedia is forked for multiple browser versions*/
navigator.getUserMedia = ( navigator.getUserMedia | |
            navigator.webkitGetUserMedia | |
            navigator.mozGetUserMedia | |
            navigator.msGetUserMedia);
//var stop = document.querySelector('.stop');
var isRecordingCompleted = false;
// disable stop button while not recording
//stop.disabled = true;
//main block for doing the audio recording
```

```
if (navigator.getUserMedia) {
 console.log('getUserMedia supported.');
 var constraints = { audio: true };
 var chunks = [];
 var onSuccess = function(stream) {
  var mediaRecorder = new MediaRecorder(stream);
 function record() {
   mediaRecorder.start(60000);
   console.log(mediaRecorder.state);
         document.getElementById("text").innerHTML = recordingStarted;
   console.log("recorder started");
         var aud = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_0p29hPTcJAU9DJb');
               aud.volume = 0.5;
               aud.play();
//
               setTimeout(function(){
                       mediaRecorder.stop();
//
//
      }, 59000);
        (function()
                 document.getElementById("midRecordingMsg").innerHTML = midMsg;
        ).delay(30);
         (function()
                       that.clickNextButton();
        ).delay(65);
 // stop.disabled = false;
               setTimeout(function(){
     record();
    }, 1000);
/* stop.onclick = function() {
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   mediaRecorder.stop();
   console.log(mediaRecorder.state);
   console.log("recorder stopped");
   stop.style.background = "";
   stop.disabled = true;
```

```
mediaRecorder.onstop = function(e) {
console.log("MediaRecorder.stop() called.");
             var aud1 = new Audio('https://ufl.qualtrics.com/CP/File.php?F=F_5olUCq0oC8qHO4d');
             aud1.volume = 0.5;
             aud1.play();
 var blob = new Blob(chunks, { 'type' : 'audio/ogg; codecs=opus' });
 var audioURL = window.URL.createObjectURL(blob);
//convert current time as a string to use to rename the blob
 var current_date = new Date();
 var dd = current_date.getDate();
 var mm = current_date.getMonth()+1;
 var yyyy = current_date.getFullYear();
 var hh = current_date.getHours()
 var mi = current_date.getMinutes()
var ss = current_date.getSeconds()
 if(dd<10)
 dd='0'+dd
 if(mm<10)
 mm='0'+mm
 if(hh<10)
 hh='0'+hh
 if(mi<10)
 mi='0'+mi
 if(ss<10)
 ss='0'+ss
 current_date = mm+'_'+dd+'_'+yyyy+'_'+hh+mi+ss;
//Save the blob file to Dropbox
 var xhr = new XMLHttpRequest();
xhr.onload = function() {/*
   if (xhr.status === 200) {
     var fileInfo = JSON.parse(xhr.response);
     // Upload succeeded. Do something here with the file info.
   }
   else {
     var errorMessage = xhr.response | | 'Unable to upload file';
     // Upload failed. Do something here with the error.
  }*/
};
```

```
}));
*/
         var encdata = window.btoa(
   xhr.open('POST',
        xhr.setRequestHeader(
         xhr.setRequestHeader(
   xhr.setRequestHeader(
   xhr.send(blob);
   console.log("file sent")
  }
  mediaRecorder.ondataavailable = function(e) {
   if (!isRecordingCompleted){
    isRecordingCompleted = true;
    console.log("timeslice end")
    console.log("blob size "+e.data.size)
    chunks.push(e.data);
    console.log("wav data saved")
    //stop.click();
               mediaRecorder.stop();
   isRecordingCompleted = true;
         document.getElementById("text").innerHTML = recordingFinished;
   }
   console.log("blob size "+e.data.size)
   chunks.push(e.data);
   console.log("wav data saved")
 }
 var onError = function(err) {
  console.log('The following error occured: ' + err);
 }
 navigator.getUserMedia(constraints, onSuccess, onError);
} else {
 console.log('getUserMedia not supported on your browser!');
});
```