Mobile Learning with Multimedia

Duration: 4 Weeks
Mobile Learning with Multimedia
Mobile Learning with Multimedia

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Mobile Learning with Multimedia

Course Description

The Mobile Learning with Multimedia course introduces participants to the use of technology tools that are readily available to them to develop curriculum-relevant and pedagogically sound educational podcasts that are broadcast ready and easily accessible in low connectivity settings. In many countries where schooling has been disrupted due to COVID-19, educators are seeking innovative ways to create quality learning opportunities for distance education and teacher professional development. This has been particularly challenging in contexts where teachers and learners may not have access to home computers or the internet. Educational podcasting provides a means to mobile learning through teacher-generated audio lessons, without the need for expensive equipment and institutional learning platforms.

Participants will learn how to use audio and multimedia tools to develop microlearning lessons as Open Educational Resources for delivery on radio, dial-in access, among other low bandwidth options for last mile mobile learning.

Recommended short course

Understanding Open Educational Resources (OER) This is a self-paced 3-hour course suggested as a prerequisite for those registered for the Mobile Learning with Multimedia (MLM2) course. If you wish to know more about OER, then you can take this short course at your own time before the start of the MLM1 course. A certificate is issued once you complete the OER course.

Course Welcome

Link: Introduction to Mobile Learning with Multimedia 1 MOOC
Course Contents

Week 1: Teaching and Learning with Multimedia Resources
Participants will:

1. Learn about the multimedia landscape
2. Identify the pedagogical differences of media
3. Learn about the affordances of mobile technology
4. Plan for production of audio lessons/podcast series (Content chunking)
5. Create a script for one podcast episode
6. Identify tools and equipment for audio recording and editing that can be used on mobile devices.

Week 2: Developing Audio-Based Learning Materials (Podcasts and/or Radio Lessons) for Mobile Access
Participants will:

1. Learn about podcasts and elements of podcasts
2. Identify different types of educational Podcasts
3. Outline the different ways of using audio lessons and podcasts in education (design)
4. Record audio from a script, for a podcast episode

Week 3: Editing Audio-Based Learning Materials for Mobile Access
Participants will:

1. Use audio editing software to edit their podcast episode
2. Upload edited audio lessons to an online podcast portal
3. Create engagement for their podcast

Week 4: Beyond the Basics
Participants will:

1. Learn how to create accessible audio resources (transcripts, captions and Sign Language)
2. Learn about transforming audio-only resources into audio-visual resources.
3. Learn about using interactive voice response (IVR) systems for low-internet resource areas

Target audience
Mobile Learning with Multimedia

The course targets primary and secondary school teachers and will be implemented over a four-week duration, with participants committing up to 4 hours per week. Participants will learn from readings, audio lessons, videos, mini-tutorials, discussions and self-practice exercises.

Outcomes of this Course

By the end of this short course, you should be better able to:

1. Identify the topic for a podcast or audio lesson
2. Use podcasts to fulfil learning objectives in different subject areas
3. Determine the right equipment for creating a podcast
4. Identity and use relevant apps or software to record and edit a podcast
5. Create and publish a podcast episode to a podcast portal
Week 1: Teaching and Learning with Multimedia Resources

In this first week, we begin with an introduction to multimedia and also familiarize ourselves with the unique features of different media. We then use our knowledge of multimedia use in education to understand its use in the context of mobile learning. We then move into a practical activity in which you will create a production plan for an audio lesson based on a course that you would wish to teach online/via mobile technologies.

By the end of this week, the learner will be able to:

1. Learn about the multimedia landscape
2. Identify the pedagogical differences of media
3. Learn about the affordances of mobile technology
4. Plan for production of audio lessons/podcast series

Lesson 1: Multimedia Landscape


Lesson 2: Unique features of different media

Link: https://teacherfutures.collee.org/mod/forum/view.php?id=1950

Lesson 3: Affordances of mobile technology

Activity 1A: Pedagogical affordances of media

**Purpose:** Identify pedagogical affordances of media

**Task:**

1. Click on the following link: Blooms Digital Taxonomy Interactive site.
2. Go through the six levels on the left (Remember, Understanding, Apply, Analyse, Evaluate, Create) which includes a description of their importance and also provides examples of digital tools and learning activities.
3. Choose a topic from a subject that you are currently teaching or will soon be teaching and create a list of learning objectives. 4. Use the provided Innovative Activities template to identify different learning activities for students based on the Blooms digital taxonomy.

Use the 'POST RESPONSE' button below to share your ideas with your peers.

**Optional:** Summarise what you have learned from this activity on your blog.

Activity 1B: Media Selection

**Purpose:** Identify media to use in your course

**Task:**

1. Read the Media Selection Matrix document in the resources sections.
2. From the media selection matrix, review the media and list of learning activities based on Blooms Digital Taxonomy that you identified in activity 1a.
3. Share the list of media or technologies that you would wish to use in the subject that you will be teaching. In the discussion forum, indicate your reasons for your choice of media/technologies.

**Respond to the following questions:**

1. What kind of lessons do you think can be best taught using audio?
2. Which lessons might be difficult to translate to audio?
Week 1 Assignment: Creating a Production plan for a podcast episode

**Purpose:** This assignment is designed to assist you in creating a production plan for an audio lesson.

**Task**

1. Download and fill in the attached production plan outline and create a production plan for an audio lesson that will address a topic from a subject that you currently teach.
2. Use the information you generated from activity 1a and 1b to complete this task.

**Feedback**

1. Share a link to your production plan on the discussion forum.
2. Your assignment (word document or PDF document) should be uploaded to the assignment box by **December 18th 2020**.
3. Use feedback and observations from the discussion forum to revise your production plan before submitting it as your assignment.
4. This is not a pass/fail assessment. Use the **Production plan rubric** to self-assess.

**Optional**

1. Create a new blog post and summarise what you have learned from the activities and lessons from this week.
   - Week 1, Resource1: Assignment 1 rubric_Creating a production plan
   - Week 1, Resource 2: Audio Lesson production plan Outline
Rubric: Creating a production plan
Course Mobile Learning with Multimedia 1 MOOC

Instructor: Melisa Allela

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date:</th>
<th>Title of the podcast episode:</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Criteria</th>
<th>Needs improvement (1)</th>
<th>Competent (2)</th>
<th>Exemplary (3)</th>
<th>Score</th>
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<tbody>
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<td>Learning Outcomes</td>
<td>☐ Learning outcomes are stated but not easy to understand.</td>
<td>☐ Learning outcomes are stated.</td>
<td>☐ Learning outcomes are clearly stated.</td>
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</tr>
<tr>
<td></td>
<td>☐ Objectives are somewhat achievable within the set duration of the Lesson.</td>
<td>☐ Objectives are fairly achievable within the set duration of the Lesson.</td>
<td>☐ Objectives are achievable within the set duration of the Lesson.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Objectives do not address specific learning domains from the Blooms digital taxonomy.</td>
<td>☐ Objectives are somewhat address specific learning domains from the Blooms digital taxonomy.</td>
<td>☐ Objectives address specific learning domains from the Blooms digital taxonomy.</td>
<td></td>
</tr>
<tr>
<td>Content summary</td>
<td>☐ Some of the main ideas, skills that will be covered in this Lesson are stated</td>
<td>☐ The main ideas, skills that will be covered in this Lesson are stated</td>
<td>☐ The main ideas, skills that will be covered in this Lesson are clearly stated</td>
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<tr>
<td></td>
<td>☐ The target audience (learners are vaguely defined)</td>
<td>☐ The target audience (learners are fairly defined)</td>
<td>☐ The target audience (learners are well defined)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ The key message is vaguely articulated</td>
<td>☐ The key message is fairly articulated</td>
<td>☐ The key message is well articulated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Possible barriers that learners may encounter in listening to or accessing the audio Lesson is not defined.</td>
<td>☐ Possible barriers that learners may encounter in listening to or accessing the audio Lesson is fairly accurate.</td>
<td>Possible barriers that learners may encounter in listening to or accessing the audio Lesson is accurately defined.</td>
<td></td>
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<tr>
<td>Format of the audio Lesson</td>
<td>☐ Format of the audio Lesson is not ideal for the lesson type/contents.</td>
<td>☐ Format of the audio Lesson is somewhat relevant for the lesson type/contents.</td>
<td>☐ Format of the audio Lesson is relevant for the lesson type/contents.</td>
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</tr>
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<td>Technology Used</td>
<td>Selection and application of technologies are beginning to be appropriate for the learning environment and outcomes.</td>
<td>Selection and application of technologies are basically appropriate for the learning environment and outcomes.</td>
<td>Selection and application of technologies are appropriate for the learning environment and outcomes.</td>
<td></td>
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<tr>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Selection and application of technologies are appropriate for the learning environment and outcomes.</td>
<td>Some technologies applied to enhance learning.</td>
<td>All materials necessary for student and teacher to complete Lesson clearly listed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technologies applied do not affect learning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Support material required to implement Lesson                                  | Some materials necessary for student and teacher to complete Lesson are listed, but list is incomplete.          | Most materials necessary for student and teacher to complete Lesson are listed.                |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Most materials necessary for student and teacher to complete Lesson are listed. |                                                                                                                  | All materials necessary for student and teacher to complete Lesson clearly listed.             |
| All materials necessary for student and teacher to complete Lesson clearly listed. |                                                                                                                  |                                                                                                 |

<table>
<thead>
<tr>
<th>OER</th>
<th>There are no OER or Open Access materials included as support material.</th>
<th>The content includes at least one properly acknowledged OER or Open Access link.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content includes at least one properly acknowledged OER or Open Access link.</td>
<td></td>
<td>OER and Open Access resources are integrated throughout the lesson materials with appropriate acknowledgement.</td>
</tr>
<tr>
<td>OER and Open Access resources are integrated throughout the lesson materials with appropriate acknowledgement.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Mobile Learning with Multimedia

Innovative Activities Template File

Week 1 resource _Media selection matrix File
Mobile Learning with Multimedia

Week 1 Reflection Blog

Every week, you should add at least one comment to your blog, reflecting on what you did and learned that week and how you might apply it to your classes. Make sure you include the week in the title of your post each week. Remember that you can go back and edit your post if you would like to do so.

Quiz

Check your understanding: Week 1 Quiz

1. Multimedia means the use of more than one
   a. Video
   b. Communication media
   c. Images
   d. Sound System

2. What are the advantages of mobile learning with educational multimedia? (You can select more than one correct response)
   a. Mobile devices can make course materials available to students wherever they are and at their own convenience
   b. Mobile technologies are common even in areas where schools, books, and computers are scarce.
   c. Learning can unfold in a variety of ways: people can use mobile devices to access educational resources, connect with others, and create content, both inside and outside classrooms
   d. Teachers and students can use mobile devices to capture different media types including images, video, and sound.
   e. Smartphones are relatively expensive and difficult to use.
   f. Through mobile learning, teachers can reach students in remote locations

3. When and why should you use audio-based learning materials as part of your mobile learning strategy? (You can select more than one correct response)
a. Audio can easily be combined with other media such as text, mathematical symbols, and graphics.
b. Audio based learning materials are relatively easy to create using mobile devices.
c. Audio requires lower less internet bandwidth and can be distributed over slow internet connections.
d. Audio can be used to teach all subjects.
e. Audio based learning materials support learning through repetition and practice to master certain auditory skills or techniques such as language pronunciation.

4. Which of the following tools is mandatory for developing mobile learning multimedia resources?
   a. A smart Phone
   b. A Microphone
   c. Computer Software
   d. Feature Phone

5. Why is it important to understand the unique pedagogical differences of each media? (You can select more than one correct response)
   a. Any media can be used in any learning context.
   b. Media differ in the extent to which they can help develop different skills.
   c. Media differ in the way they structure content.
   d. To identify the best match between media and desired learning outcomes.
   e. Media differ in the extent to which they can represent different kinds of content.

Recommended reading

Links to additional reading:

- Pedagogical differences between media
- Models for media selection
- Choosing a model for media selection
- A framework for analysing the pedagogical characteristics of educational media
Week 2: Developing Audio-Based Learning Materials (Podcasts and/or Radio Lessons) for Mobile Access

In this second week, you will be introduced to podcasting. You will also acquire practical skills in recording and your own audio lesson, following the production plan that you had developed earlier.

By the end this week, participants will be able to:

- Understand podcasts and elements of podcasts
- Identify different types of educational Podcasts (audio lectures, reflections, field trips, radio-style, case studies and expert interviews)
- Outline the different ways of using audio lessons and podcasts in education (design)
- Record audio from a script, for a podcast episode

**Introduction video**

Video Link: https://www.youtube.com/watch?v=UkF14Vo3uJA&t=31s

**Lesson 1: Introduction to Podcasts**


**Lesson 2: Types of Educational Podcasts**

Mobile Learning with Multimedia

Lesson 3: Content Chunking

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2249

Lesson 4: Creating a script for your audio lesson

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2251

Lesson 5: Recording your podcast episode

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2253
Check Your Understanding: Week 2 Quiz

1. How can you use audio to support your classroom teaching activities? (You can select more that one answer)
   a. To display learning.
   b. All of the above.
   c. None of the above.
   d. To document learning.
   e. To demonstrate learning.

2. Which of the following statement is not true about podcasts and radio lessons?
   a. Podcasts are often hosted on a website or on a podcasting platform while radio lessons are broadcast live.
   b. Podcasts need an internet connection to upload and broadcast the audio recordings. Radio lessons do not need an internet connection.
   c. Radio lessons and podcasts are exactly the same.
   d. Podcasts can be played at a listener’s convenience, anytime or anywhere. Radio lessons can only be played when the programme is on air.

3. Content chunking makes learning material more manageable and will also facilitate faster learning and recall. This is because our brains have limited capacity in the working memory which is responsible retaining new information in order to manipulate it.
   a. True
   b. False

4. What are the advantages of using podcasts as audio lessons ? (You can select more that one answer)
a. Audio files are often quite small in file size. They can be downloaded quickly over low internet connections.

b. Audio can be very usefully when teaching students with special needs. The teacher can record text lessons or assignments for students who are visually challenged.

c. Audio can be very beneficial to students who prefer to learn by listening.

d. None of the above answers is correct.

5. What does RSS stand for?
   a. Ready Simple Syndication
   b. Ready Session Syndication
   c. Really Subject Syndication
   d. Really Simple Syndication
   e. Ready Subject Syndication
Week 2 Assignment
Purpose
This assignment is designed to assist you in creating a script for your podcast/audio lesson.

Task

1. Use the audio lesson script template to create a script for an audio lesson that will address a topic from a subject that you currently teach.
2. Click on the following link: Script template to download the file.

Feedback

- Share a link to your script on the discussion forum.
- Your assignment (word document or PDF document) should be uploaded to the assignment box by December 4th 2020 GMT.
- Use feedback and observations from the discussion forum to revise your script before submitting it as your assignment.
- This is not a pass/fail assessment. Use the Audio lesson script rubric to self-assess.

Optional

- Create a new blog post and summarise what you have learned from the activities and lessons from this week.

1. Assignment 2 Rubric_Podcast episode script.docx
2. Audio Lesson script template.docx
Rubric: Creating a production plan
Course Mobile Learning with Multimedia 1 MOOC

Instructor: Melisa Allela

Name: ___________________________ Date: __________ Title of the podcast episode: ___________________________

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Needs improvement (1)</th>
<th>Competent (2)</th>
<th>Exemplary (3)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson title</td>
<td>o The podcast lesson title is vague.</td>
<td>o The podcast lesson title is fairly stated, specific and to the point.</td>
<td>o The podcast lesson title is clearly stated, specific and to the point.</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td>o The overall objectives of the podcast episode are not stated</td>
<td>o The overall objectives of the podcast episode are stated</td>
<td>o The overall objectives of the podcast episode are clearly stated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o The specific objectives are not well articulated and are connected to the overall objective.</td>
<td>o The specific objectives are somewhat defined and are connected to the overall objective.</td>
<td>o The specific objectives are well articulated and are connected to the overall objective.</td>
<td></td>
</tr>
<tr>
<td>Welcome message</td>
<td>o The welcome message is not included</td>
<td>o The welcome message is included</td>
<td>o The welcome message is included</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o The welcome message is not clearly written</td>
<td>o The welcome message is fairly articulated</td>
<td>o The welcome message is clearly written</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o The welcome message does not highlight the contents of the podcast episode</td>
<td>o The welcome message somewhat highlights the contents of the podcast episode</td>
<td>o The welcome message highlights the contents of the podcast episode</td>
<td></td>
</tr>
<tr>
<td>Lesson content</td>
<td>o The lesson content is too lengthy.</td>
<td>o The lesson content is not too long.</td>
<td>o The lesson content is broken down into small chunks of information.</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td>o The conclusion is not stated, and no information of additional resources/call to action or next steps.</td>
<td>o The conclusion is somewhat stated and includes some information on additional resources/call to action or next steps.</td>
<td>o The conclusion is clearly stated and includes information on additional resources/call to action or next steps.</td>
<td></td>
</tr>
</tbody>
</table>

Audio Lesson Script template

Teachers’ Name: ________________________________________________

Lesson title

Overview
While course outlines can be useful in facilitating the production of an audio lesson or podcast, demands of accuracy, flow and clarity of information conveyed will always call for the use of a script.

Writing a script for your audio lesson involves working out what you are going to say to explain a new idea or concept to the students.

Start by submitting the subject area of your lesson

Additional information

*(Use this space to add any additional information)*

**Step 1: Lesson title**

**Lesson Title**

The title for each audio lesson should be specific and to the point. For example, the title “Tea Farming” is broad, while “Tea Farming in Kenya” is more specific and pertains to a particular geographic locale.

*(Add your lesson title here)*

**Date of lesson**

*(Add the date of lesson here)*

**Number of lessons**

(If you are planning on creating more that one audio lesson, it is important to number it so you know which order they will be sequenced and distributed to learners)

*(Add information here)*
Step 2: Course Objectives

Overall Course Objectives

Part 1: Write down the overall objectives of the podcasts episodes or lesson objectives. Remember that the lesson does not exist in a vacuum, but is part of a longer content series.

(Add information here)

Specific Objectives

Part 2: Write down the overall goal of each audio lesson. If you are creating a series of podcast episodes, having specific objectives will help you plan the script for each session.

(Add information here)

Step 3: Write your welcome message

Step 1: Begin with an introduction of yourself, proceed with a mention of your topic, including how it relates to previous lessons (if at all), then outlining the lesson learning objectives, readings, and other materials you will be using, including any activities including discussions and assignments before officially starting your lesson.

The welcome message or introduction is important because it breaks the physical distance barrier between teacher and student. The welcome message should also be engaging enough to ensure that you capture the learners attention.

(Add information here)
Step 4: Lesson content

Content

Step 1: Write down the main points and supporting points that will be covered in the lesson.

Step 2: Write a sentence or two that covers each of your bullet points. You don’t need to write down every word you plan to say, but you do need to at the very least have an outline of talking points for your podcast. This will ensure you stay on topic and won’t forget anything you really wanted to talk about.

Content chunking

Chunking infers breaking the content in your lesson plan into small bit-size chunks. You want to ensure that the content is broken into smaller/shorter manageable segments that will also facilitate faster learning and recall. Because people have a limited capacity in their short-term memory, chunking is a useful technique for designing successful audio based lessons.

Also keep in mind, that the final audio lesson should be short, between 2 and 7 minutes in length.

(Add information here)

Step 5: Conclusion

Write your conclusion/summary or a unique signing off statement. You could also state what is to come next, mention assignments to be tackled or share additional references for the class. It is the opportunity to issue some call to action on top of signing off.
Ask for Feedback

Often, it would help if you had a fresh new pair of eyes to go over your script.

Share your script on the discussion forum, read other scripts uploaded by other participants and give and received feedback. Giving your script to someone else will reinforce your confidence or reinforce your narrative from an outside perspective. You can look out for the following:

1. Is the message clear?
2. Does the script make sense and achieve its intended goal?
3. Were there words that they would change?

Share your document on the Week 2 discussion forum for feedback.

**Activity 2: Peer Assessment (Get feedback on your script)**
In this activity, you are required to upload the completed script for your audio lesson (podcast episode), and review at least three other scripts by other participants in this course.

**Audio recording Video tutorials**

**Software**

**Wavepad**


**Audacity**
Download the software here: [https://www.audacityteam.org/](https://www.audacityteam.org/)

**Audacity Basics:**
List to Audacity tutorials: [https://manual.audacityteam.org/man/tutorials.html](https://manual.audacityteam.org/man/tutorials.html)
Audacity is a free, easy-to-use audio editor and recorder for Windows, macOS, GNU/Linux and other operating systems

**Garage Band**

GarageBand Recording Tips

GarageBand is a fully equipped music creation studio that has audio recording and editing capabilities. It only runs on macOS

**Suggested Reading**

1. [Tools for Podcasting:](http://www.oercommons.org/courses/tools-for-podcasting/view) This is an up to date OER resource that covers the subject of podcasting in great detail.
2. Download the PDF here: [https://www.mooc4dev.org/manage/mlm1/sites/default/files/2020-10/Tools-for-Podcasting.pdf](https://www.mooc4dev.org/manage/mlm1/sites/default/files/2020-10/Tools-for-Podcasting.pdf)
Activity 2A: Finding Podcasts

Purpose: Search for an existing podcast on a subject that you teach

Task:

1. On your smartphone, visit the Google Playstore and download and install the Google Podcasts App
2. Tap on the Explore tab on the Google Podcasts App that is now installed on your mobile device
3. In the search bar, search for a topic of your choice. E.g. High school biology
4. Browse through the search results and listen to at least 3 relevant teacher created podcasts.
5. Subscribe to a podcast series that is of interest to you.

What aspects of the podcasts that you listened to did you particularly enjoy? Are they relevant to your context?

share your ideas with your peers.

Optional: Summarise what you have learned from this activity on your blog.
Activity 2B: Using Podcasts in Education

**Purpose:** Identifying different ways of using podcasts in education

**Task:** How can you use podcasts in education? There are many ways that this question can be answered. Read and listen to the following account of one teacher using Podcasts in the Classroom.

*Read the article here: Strategy Share: Creating Podcasts in the Classroom National Geographic*

Think about your own learning environment and respond to the following questions:

1. How can you use podcasts as part of your classroom teaching?
2. What tools do you already have that can be used to create audio podcasts?
3. How will your students access the podcasts? Perform a search online and find out if there are any other similar podcasts that address the topics you would wish to convert to a podcast. Share the results of the podcasts that you have identified.

Share your ideas with your peers.

**Optional:** Summarise what you have learned from this activity on your blog.

Activity 2C: Creating Engagement Using Podcasts

**Purpose:** Identify media to use in your course

**Task:**

1. On your smartphone, go the Google Podcasts App
2. Search for the podcast series Cult of Pedagogy
3. Listen to episode 152: Creating moments of genuine connection online recorded in August 2020

Do you agree with the concerns raised in the episode? How would you use podcasts to create engagement in remote teaching situations via mobile learning?

Share your ideas with your peers.

**Optional:** Summarise what you have learned from this activity on your blog.
Week 3: Editing Audio-Based Learning Materials for Mobile Access

By the end of this week, you will be able to:

- Use audio editing software to record and edit your podcast episode
- Upload edited audio lessons/podcast episode to an online podcast portal
- Create engagement for your podcast using RSS subscriptions

Week 3 Introduction Video

Video Link: https://www.youtube.com/watch?v=ner9ZyxOrcc&t=2s

Lesson 1: Editing your Audio

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2261

Tutorials: Audio Editing

Requirements: Laptop + microphone

Outcomes:

- Edit an audio recording by trimming unwanted portions, setting volume and adjusting pitch
- Save the audio recording
- Export the audio recording as a .mp3 file
Editing your podcast episode using Audacity

Identify an app

List of free software for laptops or desktop computers

- **Windows OS**: Audacity, Wavepad editor, Ocenaudio, Ashampoo Music Studio 2019, Audiotool, Acoustica 6
- **Mac OS**: Garage Band

Source: https://www.audacityteam.org/
Mobile Learning with Multimedia

Activity 1: Set-up

1. To download the program, go to: https://www.audacityteam.org/
2. Click the ‘Download Audacity’ button
3. Double click the downloaded file and follow the installation directions to install the programme.
4. Open Audacity once the installation is complete.

Source: https://www.audacityteam.org/

TeacherFutures
Editing your podcast episode using Audacity

Tutorial 2: Recording
Activity 3: Microphone setup tutorial

1. Watch the audio editing tutorial:
   Click to Watch the video tutorial: Setting up Audacity to record from an external mic.
   Source: https://www.youtube.com/watch?v=cmVC-tfOJM

Activity 2: Recording

1. Input Source: If using an external microphone, plug a compatible microphone into the microphone input port on your computer.
2. Once your microphone is plugged in, select the right microphone by name in the Device Toolbar. If Device Toolbar is not visible, click on View > Toolbars > Device Toolbar.
3. If required, adjust the audio levels and conduct your microphone check.
4. Click the Record button image of Record button in Transport Toolbar then begin talking or playing. Continue for as long as you want. When you feel you’ve recorded enough, click the Stop button image of Stop button.
5. Go to the file menu and save your recording.
Mobile Learning with Multimedia

Activity 3: Editing tutorial

1. Watch the audio editing tutorial: How to edit your audio like a pro

   Click to Watch the video tutorial

   Source: https://youtu.be/YBqzdDFgFDY
Activity 3: Editing

1. Open your previous recording.
2. Play the whole recording and identify any sections that you would wish to edit.
3. Edit out any clicks and background noises, shorten any pauses and use the amplify effect if needed.
4. Experiment with the various other effects from the effects menu.
5. Save your work.

List of commonly used effects

- **Amplify**: Increases or decreases the volume of the audio you have selected.
- **Auto Ducked**: Reduces (ducks) the volume of one or more tracks whenever the volume of a specified "control" track reaches a particular level. Typically used to make a music track softer whenever speech in a commentary track is heard.
- **Change Speed**: Change the speed of a selection, also changing its pitch.
- **Click Removal**: Click Removal is designed to remove clicks on audio tracks and is especially suited to declipping recordings made from vinyl records. It will usually work best on very short clicks.
- **Distortion**: Use the Distortion effect to make the audio sound distorted. By distorting the waveform the frequency content is changed, which will often make the sound "crunchy" or "abrasive".
- **Echo**: Repeats the selected audio again and again, normally softer each time.
- **Fade In**: Applies a fade-in to the selected audio, so that the amplitude changes gradually from silence at the start of the selection to the original amplitude at the end of the selection. The shape of the fade in is linear. The rapidity of the fade-in depends entirely on the length of the selection it is applied to.
- **Fade Out**: Applies a fade-out to the selected audio, so that the amplitude changes gradually from the original amplitude at the start of the selection down to silence at the end of the selection. The shape of the fade out is linear. The rapidity of the fade-out depends entirely on the length of the selection it is applied to.
- **Noise Reduction**: Reduces constant background noise such as fans, tape noise, or hums. It will not work for removing talking or music in the background.
- **Repair**: Fix one particular short click, pop or other glitch no more than 128 samples long.

Activity 4: Mixing tracks tutorial

1. Watch the audio editing tutorial: Getting started with Audacity: Mixing Multiple tracks
   Click to Watch the video tutorial
   Source: https://www.youtube.com/watch?v=5M7f8eHg9fl
Activity 4: Mixing tracks

1. Open your saved file.
2. Browse through free sound libraries such as bensound.com. Acquire and save at least four appropriate music files to mix into your audio.
3. Click the ‘File’ tab, then click ‘Import’ then scroll down in the file tab to import and pick one of the music files you saved that would be an appropriate for your podcast episode.
4. Use the amplify effect as needed to balance the volume of the tracks.
5. Use any/all learned aspects of Audacity to mix the tracks.
6. Click the file tab and export your file as .mp3 file format.

Recommended tools and tutorials

List of free software for computers
- **Windows users:** Audacity: [www.audacityteam.org](http://www.audacityteam.org)
- **MacOS users:** Garage band [https://www.apple.com/mac/garageband/](https://www.apple.com/mac/garageband/)

Tutorials
- Audacity Basics: Recording, Editing, Mixing [https://www.youtube.com/watch?v=8CWsNn362E](https://www.youtube.com/watch?v=8CWsNn362E)
- GarageBand Tutorial for Beginners [https://www.youtube.com/watch?v=YcLQ9F5vC7w](https://www.youtube.com/watch?v=YcLQ9F5vC7w)
Activity 3: Microphone setup tutorial

1. Watch the audio editing tutorial:
   Click to Watch the video tutorial: Setting up Audacity to record from an external mic.
   Source: https://www.youtube.com/watch?v=cmVC-j6rG3M
Activity 2: Recording

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Recommended tools and tutorials

**List of free software for computers**

- **Windows users**: [Audacity](www.audacityteam.org)
- **MacOS users**: [Garage band](https://www.apple.com/mac/garageband/)

**Tutorials**

- [Audacity Basics: Recording, Editing, Mixing](https://www.youtube.com/watch?v=8ClwSNm36ZU)
- [GarageBand Tutorial for Beginners](https://www.youtube.com/watch?v=VcLQ0SvC7w)
Editing your podcast episode using Audacity

Activity 4: Mixing tracks tutorial

1. Watch the audio editing tutorial: Getting started with Audacity: Mixing Multiple tracks
   Click to Watch the video tutorial
   Source: https://www.youtube.com/watch?v=SM7f9c1BRcI

Editing your podcast episode using Audacity_Mixing TracksFile
Activity 4: Mixing tracks

1. Open your saved file.
2. Browse through free sound libraries such as bensound.com. Acquire and save at least four appropriate music files to mix into your audio.
3. Click the ‘File’ tab, then click ‘Import’ then scroll down in the file tab to import and pick one of the music files you saved that would be an appropriate for your podcast episode.
4. Use the amplify effect as needed to balance the volume of the tracks.
5. Use any/all learned aspects of Audacity to mix the tracks.
6. Click the file tab and export your file as .mp3 file format.

Recommended tools and tutorials

List of free software for computers

Tutorials
- Audacity Basics: Recording, Editing, Mixing, https://www.youtube.com/watch?v=8ClwSNm352E
- GarageBand Tutorial for Beginners, https://www.youtube.com/watch?v=YtLQ0fSvC7w
1. Which of the following statements is true about audio recording and editing on a mobile device.
   a. You can only record audio using a smartphone but not edit the recording.
   b. You can record and edit audio using any audio recording app on your phone.
   c. You can record and edit audio using specific audio recording and editing apps on your phone. These tools are called Digital Audio Workstations (DAWs).
   d. There are no freely available audio recording and editing apps for use on a smartphone.
   e. You can record and edit an audio lesson on a smartphone or tablet.
   f. You need a professional sound studio to record and edit an audio lesson.

2. Which of the following activities does not take place during the process of editing audio? You can select more than one correct answer.
   a. Choosing appropriate equipment
   b. Removing background noise from the recording such as breaths, cough, ringing of the phone or any other unwanted interference.
   c. Identifying an appropriate environment for audio recording.
   d. Choosing appropriate audio editing apps and software.
   e. Creating a recording script
   f. Removing repeated dialogues

3. Which of the following are audio editing tasks that can only be performed with an audio recording/editing app on a mobile device?
   a. Cutting up a section of a recording.
   b. Removing background noise from your recording.
c. Adding background music to your recording.
d. Splicing and assembling the recording.
e. Adding sound effects.
f. None of the above answers are correct

4. Adding background music to an audio recording or podcast episode is optional. However, if a teacher wishes to add some background music, then they should only use instrumental music and keep the volume of the instrumental music very low.
   a. True
   b. False

5. Which of the following audio file formats is best for use on the web?
   a. OGG because it is free to use without any legal issues and well supported online.
   b. .MP3 because they are widely adopted and easy to use.
   c. .AAC because they have a small file size and offer good audio quality.
   d. .WAV because they work on Windows devices.
   e. I don't really know. All the above formats seem ideal for podcasts.

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Week 3 Assignment (Recording, editing and publishing your podcast episode)
In this assignment, you are required to record, edit and upload your complete podcast episode to the podcast sandbox portal.

Purpose

In this assignment, you are required to record, edit and upload your complete podcast episode to the podcast sandbox portal.

Task

Use your mobile device (a smartphone or tablet) to record your podcast episode (audio lesson). When used correctly, the microphones on mobile technologies can handle fairly high-tech audio applications. There are a variety of apps available for recording audio – use whichever suits you best.

Once you have recorded your podcast episode, download it and perform the following tasks:

- upload your podcast episode to the Sandbox podcast portal
- copy the link to your podcast episode to a text document and upload your audio recording here as an assignment submission. (You can copy and paste the link to your podcast episode on a Word document and upload the document that contains the link.)
Feedback

- On the discussion forum, share a link to your weekly reflection blog post and upload the sample recording to the blog post.
- Seek feedback from other participants in the course on the quality of your audio recording and re-edit (if needed) your audio file accordingly.
- Your assignment (.mp3 or .wav file) should be uploaded to the Sandbox podcast portal as an assignment submission by December 18th 2020. Kindly upload or post a link to your podcast episode.
- Use feedback and observations from the discussion forum to revise your audio recording before submitting it as your assignment.
- This is not a pass/fail assessment. Use the Audio editing rubric to self-assess.
**Rubric: Audio editing**
**Course Mobile Learning with Multimedia 1 MOOC**

Instructor: Melisa Allela

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Needs improvement (1)</th>
<th>Competent (2)</th>
<th>Exemplary (3)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Narration</strong></td>
<td>☐ The audio narration is not clear.</td>
<td>☐ The audio narration is fairly audible and clear.</td>
<td>☐ The audio narration is audible and very clear.</td>
<td></td>
</tr>
<tr>
<td><strong>Noise removal</strong></td>
<td>☐ There is much echo in the audio file and too much noise in the background.</td>
<td>☐ The background noise is somewhat present.</td>
<td>☐ The background noise is very minimal.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Click and pop sounds can be clearly heard</td>
<td>☐ Click and pop sounds are very minimal.</td>
<td>☐ Click and pop sounds cannot be heard</td>
<td></td>
</tr>
<tr>
<td><strong>Background music</strong></td>
<td>☐ The background music overpowers the narrator’s voice</td>
<td>☐ The narrator’s voice is fairly clearly.</td>
<td>☐ The background music is well balanced with the narrator’s voice.</td>
<td></td>
</tr>
<tr>
<td><strong>File duration</strong></td>
<td>☐ The audio narration is too lengthy.</td>
<td>☐ The audio narration is between 9 – 12 minutes long.</td>
<td>☐ The audio file is 8 minutes long or shorter.</td>
<td></td>
</tr>
<tr>
<td><strong>OERs</strong></td>
<td>☐ The background music is not available for free use and the author is not acknowledged appropriately.</td>
<td>☐ The background music is available on a CC-BY-SA license.</td>
<td>☐ The background music is available on a CC-BY-SA license.</td>
<td></td>
</tr>
</tbody>
</table>
Activity 3A: Audio Editing Support Forum

Audio editing support forum

Task: Audio editing includes several different steps and can be performed on a number of free and commercial audio editing apps or software.

Post any questions, challenge or another other matter related to the process of editing during the peer sessions. Do not hesitate to offer assistance to another participant on this course. For instance you could create a post on:

- List of audio editing apps or software that you have used.
- Share a link to an OER resource that is helpful for audio editing.
- Ask technical questions or resolve a technical challenge that someone might be experiencing.

Activity 3B: Uploading your podcast episode to the podcast sandbox platform

Purpose: Uploading a podcast episode to a podcast portal

Task: Use the Week 3 resource on Uploading your podcast episode to the podcast sandbox.pdf

- In this discussion share a link to your published podcast episode.
- Listen to and comment on at least 3 other participants podcast episode
Week 4: Beyond the Basics

During this week, we will focus on additional topics related to using audio resources in education. This includes addressing accessibility considerations when planning, scripting, recording, and producing audio and video based learning resources; multi-format adaptability; and using Interactive Voice Response systems.

By the end of this week, you will be able to:

1. create accessible audio resources (transcripts, captions and Sign Language)
2. convert audio-only resources into audio-visual resources.
3. use interactive voice response (IVR) systems to create audio lessons for low-internet resource areas

Lesson 1: Creating accessible learning materials

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2277

Lesson 2: Converting audio only resources into audio visual resources

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2278

Lesson 3: Interactive Voice Response systems in Education

Video Link: https://teacherfutures.colvee.org/mod/forum/view.php?id=2279
1. Which of the following statements is TRUE when creating accessible learning materials.
   a. You are not required to create accessible learning materials.
   b. You should not worry about accessibility issues unless you receive a complaint.
   c. Many accessibility issues can be fixed without requiring a developer or advanced technical expertise.
   d. Only highly trained personnel can create accessible learning materials.

2. Which of the following statements is NOT TRUE about making audio lessons more accessible.
   a. Accessible audio and video is not only essential for people with disabilities, but is also useful for everyone in a variety of situations such as when studying in library.
   b. Sign language (using hand and arm movements, facial expressions, and body positions to convey meaning) can be used to convey meaning.
   c. Captions are a text version of the speech and non-speech audio information needed to understand the content. They are synchronized with the audio and usually shown in a media player when users turn them on.
   d. You can only make audio accessible using captions/subtitles.
   e. Captions provide content to people who are Deaf or hard-of-hearing.
   f. Depending on the content your audio lesson, you have several methods or options to select from for creating accessible audio resources.

3. In which of the following scenarios would you use Virtual Reality?
   a. To create opportunities for personal interaction
b. To immerse students in settings that help create situational awareness such as being immersed in a Virtual Reality documentary about ecosystems and habitats.

c. To replicate dangerous environments such as an erupting volcano for a Geography lesson.

d. For the transfer of hard and soft skills such as in improving presentation skills.

e. To recreate situations where mistakes can be costly.

4. What does IVR (when used in the context of audio based learning materials) stand for?

a. Interactive Video Response

b. Interactive Voice Response

c. Immersive Video Response

d. Interactive Visual Response

e. Individual Visual Response

5. Which of the following statements is TRUE about IVR systems?
   
   Select one or more:

a. IVR is a technology that enables callers to interact with the computer to make a selection from a telephony menu system.

b. In some IVR systems, users can record audio lessons in their own languages or use vernacular text to speech technology.

c. IVR systems cannot handle large call volumes and are only limited to very few users.

d. IVR systems traditionally used pre-recorded voice prompts and menus to present options to callers. Modern solutions enable input and responses to be gathered through spoken words with voice recognition.

e. To listen to audio recordings, users can select different keypad entries in order to hear the voice responses.

Activity 4A: Creating accessible (multimedia-based) OERS for your context

Forum Purpose: Creating accessible (multimedia-based) OERS for your context

Overview

A secondary school is seeking ways to increase student engagement and learning while also curtailing materials costs. The school administrators are also considering different ways in which they can ensure that learning continues for students who are currently home-based learners.
A technology specialist proposes the idea of replacing costly textbooks with open educational resources (OERs) where students would retain ownership of the materials and be free to annotate and interact with learning resources in ways that are not permissible with standard textbooks and resources. The specialist also points out that teachers would be free to customize these materials to suit their curricular objectives better and prepare students to meet increasingly rigorous college and career-ready standards while saving money for the district.

Although these benefits seem to merit serious consideration by those responsible for procuring materials for the district, other educators seem concerned with how they can ensure that digital resources are appropriate for students with a diverse array of characteristics and abilities. Specifically, they are unsure about how to ensure OER are accessible to students with disabilities.

Task:

Using your own school context, what are some of the challenges in implementing accessible OERs? Reflect on issues that might arise related to evaluating, selecting, and adapting digital materials for use in their classrooms with a wide range of learners.

Activity 4B: Multiple forms of representation

Purpose:

Exploding multiple forms of multimedia content representation The African Story book project addresses the lack of educational materials through community sourcing of openly licensed, multilingual storybooks. This makes it possible for schools, libraries, and programs to write, adapt, translate, print and distribute local language stories.

Link to project: https://www.africanstorybook.org/

Task:

In the discussion forum, respond to the following:

1. How would you use/translate or adapt this resource (or similar OER resources related to your subject teaching) into different media formats?
2. What is the rationale behind the media selection (based on Bloom’s digital taxonomy and different learning domains)?

Activity 4C: Using interactive Voice Response Services to mitigate access challenges

Purpose:
Learn about using non-internet based technologies to expand access to learning materials.

Task A (Required)

Non-Internet based technologies such as radio broadcasts and interactive voice response systems present many opportunities to expand access to learning materials to thousands of learners who do not have access to the internet. On the discussion forum, respond to the following:

1. Have you used an IVR system for teaching and learning purposes? Share your experience.
2. Can the subjects that you teach be delivered using Interactive Voice Response systems?
3. What types of learning activities would you deliver in this format?

Task B (Optional)

On any mobile device, dial +18178358058 to test a demo IVR service that contains three lessons from the final week of the Mobile Learning with Multimedia Course.

NOTE: Kindly note that phone charges will apply depending on the region from which the call is made.

Week 4 Assignment Creating a transcript for your podcast episode

This assignment is designed to assist you in creating a transcript for your podcast episode.

Purpose

This assignment is designed to assist you in creating a transcript for your podcast episode.

Overview

Types of transcripts

Basic transcripts are a text version of the speech and non-speech audio information needed to understand the content. Basic transcripts are used by people who are Deaf, are hard of hearing, have difficulty processing auditory information, and others.

Descriptive transcripts for videos also include visual information needed to understand the content. Descriptive transcripts are needed to provide audio and video content to people who are both Deaf and blind. They are also used by people who process text information better than audio and visual/pictorial information. If you provide a descriptive transcript, you do not need a separate basic transcript.

Interactive transcripts highlight text phrases as they are spoken. Users can select text in the transcript and go to that point in the video. This is a feature of the media player. It uses the captions file.
How to Transcribe

You can just listen to the audio and type it up. That’s usually a very tedious because you have to stop and restart the audio a lot. There are a number of tools/software that can help by slowing down the audio and providing easy pause buttons.

Alternatively, one can start with an automatically-generated text file. There are several online tools/apps/software and services that provide speech-to-text conversion. These have various levels of accuracy. Often the text does not completely match the spoken audio — and in ways that change the meaning (or are embarrassing). You will therefore need the re-edit the autogenerated text.

Use the provided tutorial to learn how to automatically transcribe your audio file using a free transcription tool (Otter).

- Link to tutorial: How to transcribe using transcription tools.docx (mooc4dev.org)

Below are links to other online resources:

- How to Transcribe your recordings in Microsoft Word (microsoft.com)

Task

1. Using the steps provided in the tutorial, create a basic audio transcript of your audio lesson and upload it as a Word or PDF file in the assignment area.

Feedback

- Share a link to your blog post on the discussion forum.
- You assignment (PDF transcript for accessibility) should be uploaded to the assignment box by December 18th 2020 24:00 GMT.
- Use feedback and observations from the discussion forum to revise your script before submitting it as your assignment.
- This is not a pass/fail assessment. Use the Audio-Visual and Accessibility rubric to self-assess.

Optional

- Create a new blog post and summarise what you have learned from the activities and lessons from this week.

Week 4 Recommended Reading
1. Assistive Technologies: Inclusive Teaching Guidelines for Educators

2. Toolkit for International Education Stakeholders: Universal Design For Learning To Help All
   Children Read: Promoting Literacy for Learners with Disabilities

3. Read the guidelines developed by the W3C Web Accessibility Initiative on developing accessible
   audio for people with disabilities. Click https://www.w3.org/WAI/media/av/av-
   content/#audio link to open resource.