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SENIOR HIGH SCHOOL

DEPARTMENT OF EDUCATION
SCHOOLS DIVISION OF NEGROS ORIENTAL
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Kagawasan Ave., Daro, Dumaguete City, Negros Oriental

Media and Information Literacy

Quarter 2 – Module 6:
AUDIO INFORMATION AND MEDIA

ALTERNATIVE DELIVERY MODE
ADM

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Alternative Delivery Mode
Quarter 2 – Module 6: Audio Information and Media
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Secretary: Leonor Magtolis Briones
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Development Team of the Module

Writer: Romie G. Benolaria

Editor: Reynald M. Manzano

Reviewers: Louelyn M. Lajot, Ruth Marie B. Eltanal, Reynald M. Manzano

Typesetter:

Layout Artist:

Management Team: Senen Priscillo P. Paulin, CESO V
Joelyza, M. Arcilla, EdD
Marcelo K. Palispis, EdD
Nilita L. Ragay, EdD
Antonio B. Baguio Jr., EdD
Rosela R. Abiera
Maricel S. Rasid
Elmar L. Cabrera

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Department of Education –Region VII Schools Division of Negros Oriental

Office Address: Kagawasan, Ave., Daro, Dumaguete City, Negros Oriental
Tele #: (035) 225 2376 / 541 1117
E-mail Address: negros.oriental@deped.gov.ph

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MEDIA AND INFORMATION LITERACY

Quarter 2 – Module 6:
AUDIO INFORMATION AND MEDIA

What I Need to Know

This module was designed and written with you in mind. It is here to help you master the context of Media and Information Literacy. It contains varied activities that can help you as a Senior High School student to not just be an information literate individual, but a creative and critical thinker as well as responsible user and competent producer of media and information.

The module contains lesson in Audio Information and Media

After going through this module, you are expected to:

1. Describe the different dimensions of audio information and media. (MELC)
2. Evaluate the reliability and validity of audio information and media and its/ their sources using selection criteria.

What I Know

Let us determine how much you already know about the Current and Future Tends of Media and Information by answering the questions below. Use your notebook / worksheet for your answers.

A. Multiple Choice: Select the letter of the best answer from the given choices.

1. It refers to how sound particles are displaced or scattered that produce a certain level or intensity of loudness.
   A. Frequency C. Amplitude
   B. Wave Form D. Speed of Propagation

2. The actual shape of the sound waves and this is commonly associated to the timbre or quality of sound
   A. Frequency C. Amplitude
   B. Wave Form D. Speed of Propagation

3. It is a sound within the range of human hearing. This relating to or employed in the transmission, reception or reproduction of sound.

A. Sound waves C. Audio
B. Transmission D. Attribute

4. It is live or recorded audio sent through radio waves to reach a wide audience.

A. Radio broadcast C. Sound recording
B. Sound effects D. Music

5. A. plastic-fabricated, circular medium for recording, storing, and playing back audio, video, and computer data.

A. Tape C. USB drive
B. CD D. Memory Card

B. True or False: Write True is the statement is correct otherwise write False.

_____1. A memory Card is a small storage medium used to store data such as text, pictures, audio, and video, for use on small, portable, or remote computing devices.

_____2. A computer hard drive is a primary storage devices found in personal computers and can store audio files.

_____3. MP3 is a common format for consumer audio, as well as a standard of digital audio compression for the transfer and playback of music on most digital audio players.

- _____4. Dialogue is a vocal or instrumental sounds (or both) combined in such a way as to produce beauty of form, harmony, and expression of emotion.

_____5. In film language, literal sound is also called diegetic sound.

- _____6. The WMA is a great file for Windows users.

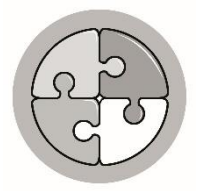
_____7. Sound is vital in film and television production

_____8. Sound may be recorded through analog or digital forms.

_____9. Sound is not a powerful tool of expression, both alone and in combination with images.

_____10. Sound is important when you relay any content or message because in real life you receive both sound and image at the same time, and thus, having a more complete understanding of the message.

MIL Audio Information and Media



What's In

Sound, as you may have learned in your science class, is an energy form that is propagated by vibrating objects. The energy travels through a medium such an air. Sound is in the same league as other forms of energy such as heat and light. The law of conservation of energy states that energy can neither be created nor destroyed, and it can only be converted. Sound energy is converted from vibrating object's kinetic energy. Imagine throwing a pebble into a pond and you see a ripple spreading over the water. This is the most classic illustration of the energy conversion. (Liquigan, 2016).

According to B. Liquigan (2016), when you study the nature of sound or audio in terms of generation, transmission, and reception, you are engaged in what is called **acoustics.**

In this module, your concern is not on the technical aspect of audio, but rather in its informative capacity. But before you do understand how audio is used for information relay, you have to be familiar with the basic principles about sound and waves.

What's New

Activity 1: Assess yourself. Write your answer in a worksheet or notebook.

1. If you were to think of the three sounds that you like listening to the most, what would these be?
2. What are your reasons for listening to certain kinds of sounds?
3. Have you ever thought about the absence of sound in your life?

This are but a few of the questions that may get you thinking about the value of sound in your existence.

What is It

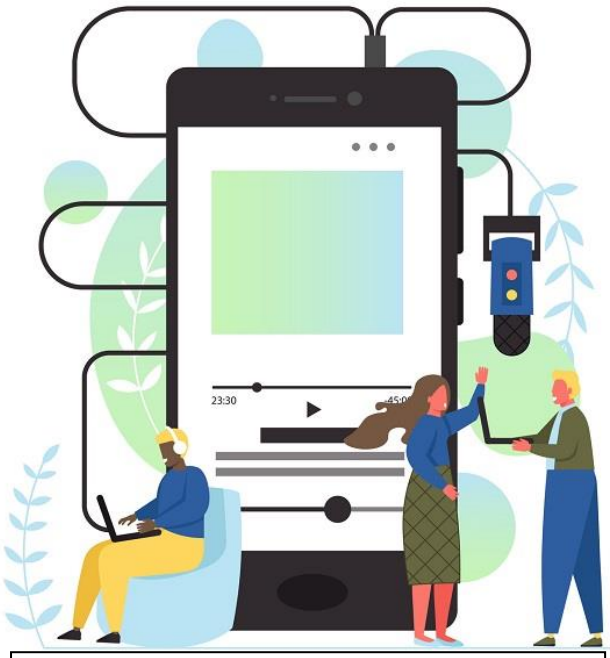
AUDIO INFORMATION AND MEDIA

What is an Audio?

Audio – is a sound within the range of human hearing. This relating to or employed in the transmission, reception or reproduction of sound.

> *Reception* – is the action or process of receiving something sent, given, or inflicted.
>
> *Transmission* – is the action or process of transmitting something or the stat of being transmitted.

Characteristics of Sound



Source: https://d27jswm5an3efw.cloudfront.net/app/uploads/2019/11/audio-file-types-33.jpg

The Four Fundamental Attributes of Sound

1. *Amplitude* – Refers to how sound particles are displaced or scattered that produce a certain level or intensity of loudness. The unit of measurement for amplitude is *decibels*.

2. *Frequency* – It is measured by counting the number of vibrations of sound particles in the path of a wave in a span of a second. You typically associate frequency with *pitch* which is measured in Hertz (Hz).

3. *Wave Form* – The actual shape of the sound waves. This is commonly associated to the timbre or quality of sound. Sound form is the characteristics that distinguishes one sound coming from a source with that of another sound form another source.

4. *Speed of Propagation* – It pertains to how quickly sound travels. This characteristic is dependent on the medium on which the sound is propagated, as well as on the medium's temperature.

Sound is having both technical and aesthetic roles in media production. It has depth and perspective, which is why it can be a mode of information exchange. The sound, ccording to Roberts-Breslin (2008)

1. Is a powerful tool of expression, both alone and in combination with images;
2. Encourages you to imagine the experience of visuals in your minds, creating a unique experience for each listener; and
3. Allows you to hear what people are talking about, and hearing their voices, which, as opposed to reading their words, can give you information about the speaker's attitude, mood, geographical origin, and age."

You cannot put the world on mute. Sound is everywhere. What you can do it to make the most productive use of the sound to benefit yourself and other people (Liquigan, 2016).

Recording Format

Sound may be recorded through **analog** (as in the case of audio tapes) or digital (in the form of digital audio audiotape or disc-based format such as compact discs, recordable CDs, rewritable CDs, digital versatile discs, and mini discs), When you want to record straight to the computer, you may use digital audio recorders (Roberts-Breslin, 2008)

Sound is vital in film and television production. You see sound manifesting as dialogue, music, and sound effects; thus, it is not merely an additional element to the video component but is rather considered the fifth (5^{th}) dimension of media aesthetics. As Zettl (1999) puts it, "sound is an indispensable element in television and film communication."

Types and Categories of Audio Information

1. Different forms of audio we produce and record	
Radio broadcast - live or recorded audio sent through radio waves to reach a wide audience.	**Sound recording** - recording of an interview, meeting, or any sound from the environment.
Sound clips/effects - any sound, other than music or speech, artificially reproduced to create an effect in a dramatic presentation, as the sound of a storm or a creaking door.	**Music** - vocal and/or instrumental sounds combined in such a way as to produce beauty of form, harmony, and expression of emotion. It is composed and performed for many purposes, ranging from aesthetic pleasure, religious or ceremonial purposes, or as an entertainment product.
2. Different ways of storing audio media	
Tape - magnetic tape on which sound can be recorded.	**CD** - a plastic-fabricated, circular medium for recording, storing, and

	playing back audio, video, and computer data.
USB drive - an external flash drive, small enough to carry on a key ring, that can be used with any computer that has a USB port.	**Memory Card -** is a small storage medium used to store data such as text, pictures, audio, and video, for use on small, portable, or remote computing devices.
Computer hard drive - secondary storage devices found in personal computers and can store audio files.	
3. Common audio file format	
MP3 (MPEG Audio Layer) - a common format for consumer audio, as well as a standard of digital audio compression for the transfer and playback of music on most digital audio players.	**M4A/AAC (MPEG-4 Audio/Advanced Audio Coding) -** an audio coding standard for lossy digital audio compression. Designed to be the successor of the MP3 format, AAC generally achieves better sound quality than MP3 at similar bit rates.
WAV - is a Microsoft audio file format standard for storing an audio bitstream on PCs. It has become a standard file format for game sounds, among others.	**WMA (Windows Media Audio) -** is an audio data compression technology developed by Microsoft and used with Windows Media Player.

Elements of Sound Design. The objects or things that we have to work with:

- **Dialogue** - speech, conversation, voice-over.
- **Waterfall** - As first element fades out, the second element begins at full volume. Better for voice transitions, than for
- **Sound Effects** - any sound other than music or dialogue.
- **Music** - vocal or instrumental sounds (or both) combined in such a way as to produce beauty of form, harmony, and expression of emotion.

Silence - absence of audio or sound **Principles of Sound Design**. The techniques for combining the different elements or objects.

- **Mixing** - the combination, balance and control of multiple sound elements.
- **Pace** - Time control. Editing. Order of events: linear, non-linear, or multilinear.
- **Transitions** - How you get from one segment or element to another.
- **Stereo Imaging** - Using left and right channel for depth

Dimensions of Sound

According to Zettl (1999) sound has the following dimension:

1. ***Film sound.*** Sound has to match the aesthetic impact of an image; thus, most films these days are aiming at using surround-sound technology.

2. ***Literal sound.*** Sound may be referential, which means it conveys a specific literal meaning and describes the source of the sound. In film language, literal

sound is also called ***diegetic sound***. For instance, when you hear a sound of a baby crying, you will know that the sound is really coming from a baby who is crying. You will still know this even if the sound is mute because you associate the image of a baby crying with the sound that is produced when you see such scene.

3. ***Nonliteral sound***. Sound may also be nonreferential and may only evoke a visual image of the source of the sound. Nonliteral sound is also called ***nondiegetic*** sound. Its purpose is more symbolic and it accompanies a particular image to intensify the intent of that image. An example would be the "borings, hisses, and whams in a cartoon that accompany the incredible feats of the cartoon character, the romantic music during a tender love scene on the beach, or the rhythmic theme that introduces the evening news."

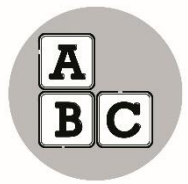
7 Popular Audio File Types to Consider (Casey Schmidt, 2020)

Each audio file type has unique benefits and drawbacks. Determine which one is best for specific tasks or situations to save time and reduce stressful errors. Here are seven popular audio file types and some unique differences between them.

File Type	Description
M4A	The M4A is an mpeg-4 audio file. It is an audio-compressed file used in the modern setting due to increased quality demand as a result of cloud storage and bigger hard drive space in contemporary computers. Its high quality keeps it relevant, as users who need to hear distinct sounds on audio files will need this over more common file types.
FLAC (Free Lossless Audio Codec)	It is an audio file compressed into a smaller size of the original file. It's a sophisticated file type that is lesser-used among audio formats. This is because, even though it has its advantages, it often needs special downloads to function. When you consider that audio files are shared often, this can make for quite an inconvenience to each new user who receives one. What makes the FLAC so important is the lossless compression can save size and promote sharing of an audio file while being able to return to the original quality standard. The near-exact amount of storage space required of the original audio file is sixty percent – this saves a lot of hard drive space and time spent uploading or downloading.
MP3 (Media Player 3)	The MP3 audio file is an MPEG audio layer 3 file format. The key feature of MP3 files is the compression that saves valuable space while maintaining near-flawless quality of the original source of sound. This compression makes the MP3 very popular for all mobile audio-playing devices, particularly the Apple iPod. The MP3 stays relevant among newer audio file types due to its high quality and small size.

	MP3 continues to be relevant in today's digital landscape because it's compatible with nearly every device capable of reading audio files. The MP3 is probably best used for extensive audio file sharing due to its manageable size. It also works well for websites that host audio files. Finally, the MP3 remains popular because of its overall sound quality. Though not the highest quality, it has enough other benefits to compensate.
MP4 (Media Player 4)	An MP4 audio file is often mistaken as an improved version of the MP3 file. However, this couldn't be further from the truth. The two are completely different and the similarities come from their namesake rather than their functionality. Also note that the MP4 is sometimes referred to as a video file instead of an audio file. This isn't an error, as in fact it's both an audio and video file. An MP4 audio file type is a comprehensive media extension, capable of holding audio, video and other media. The MP4 contains data in the file, rather than code. This is important to note as MP4 files require different codecs to implement the code artificially and allow it to be read.
WAV (Waveform Audio File)	A WAV audio file is a Waveform Audio File that stores waveform data. The waveform data stored presents an image that demonstrates strength of volume and sound in specific parts of the WAV file. It is entirely possible to transform a WAV file using compression, though it's not standard. Also, the WAV is typically used on Windows systems. The easiest way to envision this concept is by thinking of ocean waves. The water is loudest, fullest and strongest when the wave is high. The same holds true for the waveform in the WAV. The visuals are high and large when the sound increases in the file. WAV files are usually uncompressed audio files, though it's not a requirement of the format. The WAV offers an uncompressed format.
WMA (Windows Media Audio)	- It is a Windows-based alternative to the more common and popular MP3 file type. What makes so beneficial is its lossless compression, retaining high audio quality throughout all types of restructuring processes. Even though it's such a quality audio format, it's not the most popular due to the fact it's inaccessible to many users, especially those who don't use the Windows operating system. - The WMA is a great file for Windows users. - If you're a Windows user, simply double-click any WMA file to open it. The file will open with Windows Media

	Player (unless you've changed the default program). If you're not using Windows, there are some alternatives to help you out. The first option is to download a third-party system that plays the WMA. If this isn't something you want to do, consider converting the WMA to a different audio format. There are plenty of conversion tools available.
AAC (Advanced Audio Coding)	- It is an audio file that delivers decently high-quality sound and is enhanced using advanced coding. It has never been one of the most popular audio formats, especially when it comes to music files, but the AAC does still serve some purpose for major systems. This includes popular mobile devices and video gaming units, where the AAC is a standard audio component.



What's More

Activity 2: Try to Imagine

While at home, you were having a conversation with your guardian/parent about your grades, try to communicate with her/him without talking.

Wonder at this: After you imagine trying to communicate without talking, think about this:

1. Describe how you imagined yourself trying to communicate without talking?
2. Do you think your guardian or parent will understand you without talking?
3. Can you find other ways to communicate using sound without talking?

What I Can Do

Activity 3: Favorite Song List

Instruction: List down 10 title of your favorite songs or songs that are in your MP3 list or mobile phone.

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Activity 4: Reflect Me (Optional)

Go to your favorite spot where you usually spend your idle time. For about 15 minutes, listen to the mix of sounds you hear on the spot and try to scribble some notes about your thoughts on questions below:

1. How many distinctive sources of sound can you hear in that period you spent listening?
   _____
   _____
   _____.
2. What are the sources of these sounds?
   _____
   _____
   _____.
3. If you heard these sounds blindfolded, would you be able to identify where you are?
   _____
   _____
   _____.

Activity 5: Q and A (Optional)

1. What are the technical aspects that characterize audio information?
   _____
   _____
   _____.
2. How is sound or audio useful in information exchange?
   _____
   _____
   _____.
3. What is the importance of sound in media forms such as film and television?
   _____
   _____
   _____.

Encode your answers and save file as .doc or .pdf and upload in a file-sharing platform that your teacher set up for your class.

Assessment

A. Multiple Choice: Select the letter of the best answer from the given choices.

6. It refers to how sound particles are displaced or scattered that produce a certain level or intensity of loudness.
   A. Frequency C. Amplitude
   B. Wave Form D. Speed of Propagation

7. The actual shape of the sound waves and this is commonly associated to the timbre or quality of sound
   A. Frequency C. Amplitude
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8. It is a sound within the range of human hearing. This relating to or employed in the transmission, reception or reproduction of sound.
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   B. Transmission D. Attribute

9. It is live or recorded audio sent through radio waves to reach a wide audience.
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   B. Sound effects D. Music

10. A. plastic-fabricated, circular medium for recording, storing, and playing back audio, video, and computer data.
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   B. CD D. Memory Card

B. True or False: Write True is the statement is correct otherwise write False.

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Additional Activity

Activity 6: A Sound College (Optional)

Think of yourself as an audio researcher who gather different sounds for a production house's sound archive. Using an audio recording equipment or gadget, you were asked by your boss to create a sample of a sound collage that may be used as a special effect for a future film or television project. You have been given the leeway to choose your own them and other creative considerations for your sound collage Since you are pressed with time, you will need to think about the order and duration of your recordings.

You may want to combine voice and environmental sound. Consider all the design principles and elements of audio information and media in this task. The collage should be no more than five minutes in length and must be saved in any of the appropriate format as suggested to the following:

- What are the sources of the sound that you used for the collage?
- How did you put them together?
- What title can you give your collage?
- In what context may the collage be used for a film or a television project?

Answer Key

What I know

A. Multiple Choice

1. C
2. B
3. C
4. A
5. C

B. True or False

1. True.
2. False
3. True
4. True
5. False
6. True
7. True
8. True
9. False
10. True

Assessment:

A. Multiple Choice

1. C
2. B
3. C
4. A
5. C

B. True or False

1. True.
2. False
3. True
4. True
5. False
6. True
7. True
8. False
9. True
10. True

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