MMPSE301-

MMPSE301

SOUND EDITING

EDIT SOUND

Competence

RQF Level: 3

Learning Hours

50

Credits: 5

Sector: ICT and Multimedia

Trade: Multimedia Production

Module Type: Specific

Curriculum: ICTMMPSE3001 - TVET Level 3 in Multimedia

Issue Date: April 2022

Purpose statement	This module provides knowledge and skills to identify sound effect and soundtrack, create audio track channel, mix busses, applying fades, and adjust waveform and applying audio effect. At the end of this module, the trainees will be equipped with necessary, skills to edit sound for final mix such as jingle, recorded radio audio program, music audio tracks, short film sound, Soundtracks, sound effect and sound for TV recorded program.				
Delivery modality	**Training delivery**	**100%**	**Assessment**		**Total 100%**
	Theoretical content	30%	Formative assessment	30%	50%
	Practical work:	70%		70%	
	● Group project and presentation — 20%				
	● Individual project /Work — 50%				
			Summative Assessment		50%

Elements of Competency and Performance Criteria

Elements of competency	Performance criteria
1. Prepare for editing sound	1.1. Character's tracks have been properly identified based on the scenes objectives
	1.2. Sound effect and sound tracks have been properly identified based on the audio script
	1.3. Editing software and hardware have been properly selected based on the project requirements
2. Edit audio sequences	2.1. Tracks channel have been created properly to facilitate sound mixing processes based on the script
	2.2. Mix busses have been properly created based on the expected audio output.
	2.3. Fades (in and out) have been properly applied based on the script
3. Mix audio	3.1. Editing techniques of single and multi-track have been properly applied based on the audio script

	3.2. Standard waveform audio has been convenient adjusted based on the product target
	3.3. Audio effect have been properly applied based on the audio script
4. Finalize sound editing	4.1. Noise reduction have been properly applied based on the product target
	4.2. Signal processing have been properly applied based on the product target
	4.3. Audio files have been properly exported based on product target

Course content

Learning outcomes	At the end of the module the learner will be able to: 1. Prepare for editing sound 2. Edit audio sequences 3. Mix audio 4. Finalize sound editing
Learning outcome 1: Prepare for editing sound	**Learning hours: 8**

Indicative content

- **Identification of character's track**
  - ✓ Single track
  - ✓ Multi-tracks
- **Soundtrack, sound effect (SFX)**
  - ✓ SoundTrack Genre
  - ✓ Sound Effect types
- **Editing software and hardware requirements**
  - ✓ Computer
  - ✓ OS
  - ✓ DAW (Digital Audio Workstation)
  - ✓ Firewire or Thunderbolt
  - ✓ Sound card
    - Sample rate
    - Adjust input level (dB)

Resources required for the learning outcome

Equipment	Computer (Desktop or laptop), headphones, speakers
Materials	Internet, CDs, DVDs,
Tools	Tools Manual Instruction, Audio script, Logic Prox, Adobe audition, Garage Band, FL studio, Cubase, Nuendo, Reaper, Magix Samplitude Pro X, Ableton Live, Audacity.
Facilitation techniques & Learning activities	• Demonstration • Practical exercise • Trainer guided Practices • Group discussion

Formative assessment methods	• Written assessment • Performance

Learning outcome 2: Edit Audio Sequences	Learning hours: 8

Indicative content

- **Tracks Channel**
  - ✓ Single track
    - Mono channel
    - Stereo channel
  - ✓ Multi-track
    - Mono channel
    - Stereo channel
- **Creation of busses**
  - ✓ Mono Busses
  - ✓ Stereo Busses
- **Application of the standard fade types**
  - ✓ Linear Fade
  - ✓ Exponential Fade
  - ✓ Logarithmic Fade
  - ✓ Sine curve Fade

Resources required for the indicative content

Equipment	Computer (Desktop or laptop), Sound card, Speakers, Headphones
Materials	Internet, CDs, DVDs,
Tools	Logic Prox, Adobe audition, Garage Band, FL studio, Cubase, Nuendo, Reaper, Magix Samplitude Pro X, Ableton Live, Audacity, Audio script
Facilitation techniques & Learning activities	• Demonstration • Practical exercise • Trainer guided Practices • Brainstorming • Video Tutorial
Formative assessment methods	• Written assessment

	• **Performance assessment**

Learning outcome 3: Mix Audio	**Learning hours: 20**

Indicative content

- **Application of single and multi-track editing techniques**
  - ✓ preforming Corrective tasks
    - ♦ Cutting
    - ♦ Copying
    - ♦ Pasting
  - ✓ Performing Creative tasks
    - ♦ Time stretching
    - ♦ Pitch manipulation
  - ✓ Preforming Restoration Tasks
- **Adjustment of audio wave form standard**
  - ✓ Sine Wave
  - ✓ Square Wave
  - ✓ Sawtooth Wave
  - ✓ Triangle Wave
- **Audio Effects Application**
  - ✓ Modulation Effects
  - ✓ Time-based Effects
  - ✓ Spectra Effects
  - ✓ Dynamic Effects
  - ✓ Filters

Resources required for the indicative content

Equipment	Computer (Desktop or laptop), Sound card, Speakers, Headphones
Materials	Internet, CDs, DVDs,
Tools	Logic Prox, Adobe audition, Garage Band, FL studio, Cubase, Nuendo, Reaper, Magix Samplitude Pro X, Ableton Live, Audacity, Audio plugin, Audio script
Facilitation techniques & Learning activities	• Demonstration • Practical exercises • Trainer guided Practices

	• Brainstorming
	• Video Tutorials
Formative assessment methods	• Written assessment
	• Performance assessment
	• Product based assessment

Learning outcome 4: Finalize sound editing	**Learning hours: 14**

Indicative content
• **Use Noise reduction tools**   ✓ Checking audio signal Spectrum   ✓ Application of DC offset   ✓ Use Denoise   • **Signal processing application**   ✓ Compressor   ✓ Equalizer   ✓ Gate   • **Exporting audio files**   ✓ Respecting Audio tracks order   ✓ Selecting audio formats and bit-rate   ✓ Exporting single track   ✓ Exporting Multi-tracks (Separate Tracks)   ✓ Exporting Mix

Resources required for the indicative content

Equipment	Computer (Desktop or laptop), Sound card, Speakers, Headphones
Materials	Internet, CDs, DVDs,
Tools	Logic Prox, Adobe audition, Garage Band, FL studio, Cubase, Nuendo, Reaper, Magix Samplitude Pro X, Ableton Live, Audacity, Audio script
Facilitation techniques & Learning activities	• Demonstration • Practical exercise • Trainer guided Practices • Brainstorming • Video Tutorial

Formative assessment methods	- Written assessment
	- Performance assessment
	- Product based assessment

Integrated situation

The African management institute located in Kigali city needs to hire a competent Audio Editor that will edit one of their audio scripts of e-Learning audio material. The audio material in Question is a 5min Episode and the project folder contains the Audio script, all Recorded voice tracks, soundtrack and sound effects. The final audio File must be in wav format with 24 bits to be submitted to the institution within 3 Hours.

Resources

Tools	Logic Pro X, Adobe audition, Garage Band, FL studio, Cubase, Nuendo, Reaper, Magix Samplitude Pro X, Ableton Live, Audacity, Audio plugin, Audio script
Equipment	Computer (Desktop or laptop), Sound card, Speakers, Headphones
Materials/ Consumables	Internet, CDs, DVDs,

Assessable outcomes	Assessment criteria (Based on performance criteria)	Indicator	Observation Yes	Observation No	Marks allocation
Learning outcome 1: Prepare for Editing sound (20%)	1.1. Selection of required tools, equipment and materials	Editing software is selected			5
		Hardware are selected			5
	1.2. Preparation of Audio files and Identification of Audio script contents	Workflow interface is arranged			5
		Sound effect and soundtrack tracks are Created			5
Learning outcome 2: Edit audio sequences (45%)	2.1. Creation of Track Channel and Mix Busses	Tracks channels are generated			4
		Stereo and mono channel are generated			4
		Mix busses are created			4
		Linear fade applied			7

	2.2. Application of standard fades types	Exponential fade is applied			**7ip**
		Sine curve fade is applied			**7**
	2.3. Application of single track, and multi-tracks editing techniques	Corrective tasks are performed			**8**
		Creative tasks are performed			**4**
Learning outcome 3: Finalize audio editing (35%)	3.1. Application of audio effects and noise reduction	Modulation effects are applied			**5**
		Time based effects are applied			**5**
		Spectra effect are applied			**5**
		Dynamic effects are applied			**5**
		DC offset are applied			**5**
	3.2. Exporting audio files	Multi-tracks are exported (Separate Tracks)			**5**
		The mix is well exported			**5**
Total marks					**100**
Percentage Weightage					**100%**
Minimum Passing line % (Aggregate): 70%					

References:

- Schroder carla. (2011). The book of Audacity : record, edit, mix, and master with the free audio editor
- Langford Simon. (2014). Digital audio editing : correcting and enhancing audio in Pro Tools, Logic Pro, Cubase, and Studio One
- Neuman, A. C., Bakke, M. H., Mackersie, C., Hellman, S., & Levitt, H. (1998). The effect of compression ratio and release time on the categorical rating of sound quality.

- Plyler, P., Hill, A., & Trine, T. D. (2005a). The effects of expansion on the objective and subjective performance of hearing instrument users. Journal of the American Academy of Audiology.