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Implementation of Sound Effects and Voice Over Techniques in Creating Motion Graphic "Budidaya Ayam Kampung Unggul Balitbangtan"

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A B S T R A C T

In the current era of technological advances used to provide information has grown very rapidly. Various kinds of media are used, one of them is Motion Graphic. The motion graphic entitled "Budidaya Ayam Kampung Unggul Balitbangtan" aims to make people aware of how to cultivate Ayam Kampung Unggul Balitbangtan. Motion graphics have several important things, one of which is voice-over and sound effects, because they can convey messages well to the community. In the process of making it can start with designing, then proceed with production and end with product testing. The making of this motion graphic refers to the method from the e-book Motion Graphics Budidaya Ayam Kampung Unggul Balitbangtan. Voice-over and sound effects used greatly affect the final result of the motion graphic made Both of them can present the topics that are displayed to the public and the public can understand the intent and purpose of this motion graphic. Voice-over cannot only be applied to motion graphics but can also be applied to commercial videos.

A R T I C L E   I N F O

1. INTRODUCTION

Motion graphics are made with video or animation technology and also by creating a motion hallucination or changing the appearance of visual factors. When it is used in multimedia projects, motion graphic is usually followed by sound. This type of graphic usually appears in electronic media. The existence of learning media in the form of motion graphics animation video can increase students' interest in a subject, which implicates the addition or increase of students' knowledge on that subject and the students' grade on that particular subject. Ntobuo et al (Amali, 2020). The accelerated development of technology has had a significant impact on how information is presented. Motion Graphic is one of the innovative approaches to information delivery. Motion Graphic is a popular form of educational media in the modern age. Motion graphics is a digital technique that incorporates images, words, sound, and video, according to Al Boardman's article "What is motion graphics?" It incorporates numerous creative elements such as typography, illustrations, shapes, and logos. To tell a narrative, these elements are animated and brought to life (Eskak, 2013).

Motion graphics created by professionals frequently incorporate voice over and sound effects to enhance the visual experience and effectively convey the intended message (Mufidah *et al*., 2020).

In practice, sound is captured using recording devices that can be connected to a computer, such as a computer microphone. After the sound has been recorded, it is edited.

Sound effects are synthetic or natural noises that elicit the viewer's imagination and interpretation of depicted situations. Ambient sounds from real-world situations can be used to create sound effects, or they can be deliberately combined with other musical sounds (Ambeth, 2020).

Since such encoding processes are also likely to require cognitive resources, those resources would no longer be available for encoding information about the story. Thus, there are reasons to think that the immersive presentation of content negatively impacts encoding, storage, and retrieval of information (which, within the LC4MP literature, are commonly measured through recognition, cued recall, and free recall tests, respectively (Barreda, 2021). There are various reasons why the immersive presentation of content may change the balance between resources required and allocated to process the message, compared to the more traditional presentation in a 2D screen. One of the most evident among them is the larger field of view, which gives the users the impression of being in the middle of the scene. In such an immersive environment, after each camera edit, a new complete scene is presented all around the user who, logically, cannot view its full extent at a glance (Leaver, 2010)

In a number of sectors, including the local chicken farming industry, motion graphics serve as an informative medium. As is well-known, the population's consumption of chicken meat and eggs is rising, but production has yet to entirely meet demand. Consequently, a motion graphic titled "Budidaya Ayam Kampung Unggul Balitbangtan" has been developed to educate the audience, including the general public and poultry producers, about the cultivation of superior local chickens (*Ayam KUB*). The goal is to increase the production of local chicken eggs to satisfy the community's needs.

2. METHODS

In this investigation, we utilized descriptive and qualitative methods of applied research. The objective of the descriptive research was to acquire information to explain sound effects and voice over, while the qualitative research centered on problem identification and data collection methods (Alam, 2021). The motion graphic "Budidaya Ayam Kampung Unggul Balitbangtan" was derived from the ebook "Budidaya Ayam Kampung Unggul Balitbangtan". There were three phases involved in the production of the motion graphic: Preparation (pre-production), production, and post-production (Łach *et al.,* 2021).

2.1. Problem Recognition

The According to the Organization for Economic Co-operation and Development's (OECD) Program for International Student Assessment (PISA) research, Indonesia ranks 62 out of 72 countries in terms of interest and reading. Therefore, inventive methods are required to pique the interest of the Indonesian populace, such as maximizing the use of sound effects and voice over techniques in the motion graphic "Budidaya Ayam Kampung Unggul Balitbangtan".

2.2 Methods for Collecting Data

The following techniques were used to implement sound effects and voice over techniques in the creation of the motion graphic:
  1) Literature Review
      a. Reading relevant texts.
      b. Examining relevant journals.
  2) Field Study

To accomplish synchronization and comparison between existing theories and practical experiences, the author conducted field research. The following procedures were utilized:
      a. The author observed the ebook "Budidaya Ayam Kampung Unggul Balitbangtan" closely, concentrating on the selection of sound effects and voice-over content in the ebook.
      b. The author conducted interviews with the creators of the motion graphic ebook "Budidaya Ayam Kampung Unggul Balitbangtan"

3. RESULTS AND DISCUSSION

3.1. Description of Sound Effects and Voice Over

3.1.1. Description of Sound Effects

Sound effects are artificial or real sounds that evoke imagination and interpret the experience of the situation being presented. They are ambient/background sounds that can be taken from the original sound or intentionally added with other sounds/music (Fowler, 2017).

Generally, the background sound used should support what is being portrayed in the video, whether it is the original ambient sound or edited sounds.

However, in a motion graphic video, the sound effects used should not deviate from the topic being presented. This poses a challenge in implementing sound effects in motion graphic production (Septiani and Rejekiningsih, 2020).

3.1.2. Function of Sound Effect

1) Providing time indications such as morning, afternoon, or night through sounds like chirping birds, owls, and rooster crowing.
2) Creating differentiation in the video, such as the sound of crashing waves at the beach or gentle breeze, to portray two children playing around.
3) Creating a sense of pressure or emotion in a scene, such as silence, suspense, or tranquility.
4) Establishing a location, for example, using sounds of chickens, ducks, or cows to depict a farming environment.

3.1.3. Types of Sound Effect

Based on our research, there are three types of sound effects:

1) Spot Effect: These are sounds created directly during the recording process.
2) Actuality Recorded Effect: These are sound effects obtained or recorded directly at the location of the event and used as sound effects during the recording. For example, the sound of car horns during a traffic jam or the flowing sound of a river.
3) Library Recorded Effect: These are artificially created effects produced in a studio and stored on a vinyl record or magnetic tape for specific purposes.

3.1.4 Definition of Voice Over

Voice over is an additional narration in the form of a human voice that reads a story or narrative related to the video being created (Barreda-Ángeles *et al.,* 2021). In practice, voice over is often paired with sound effects as background music. The first thing to consider in voice over is the selection of voice over talent or the voice of the person used in the voice over process. This is important because it affects the subsequent process (Indra and Johari, 2014).

In practice, voice over is done using a sound recording device that is compatible with the computer, such as the computer's built-in microphone (Fagherazzi *et al.,* 2021). After the recording process with the narrator/voice over talent, the recorded sound is then edited, which may involve tasks such as noise reduction, adjusting the gain, and other editing techniques to ensure the clarity of the voice. In the case of voice over for the motion graphic "Ayam Unggul Balitbangtan" the recorded voice undergoes editing processes to enhance its clarity before being combined with the video.

3.2. Phasing of Sound Effect and Voice Over Elements

According to the e-book, the first step in the process of creating a motion graphic is Preparation. This is the initial phase in the process of creating motion graphics. Within the Preparation phase, there are three phases: Concept (research, concept, mood board, and presentation), Format and Composition (format, composition, and elements), and Storyboard (Ronfard *et al.*, 2022).

Research entails collecting, analyzing, and interpreting information and data to obtain a deeper understanding of a particular phenomenon. The motion graphic is designed at the request of Balai Besar Pengkajian dan Pengembangan Teknologi Pertanian, with an emphasis on the cultivation of superior local chickens (*Ayam Unggul Balitbanga*).

Following the completion of research, the next stage is to generate ideas. Without ideas, it is impossible to create art. The phase of ideation is crucial because it establishes the direction, in this case concentrating on the topic of superior local chickens (*Ayam Kampung*

Unggul). Once all aspects have been researched and comprehended, this phase investigates how the motion graphic can be designed to produce creative and visually enticing movements.

A storyboard is a series of interconnected images that illustrate the motion and elements of a motion graphic. Storyboarding is the most efficient and effective method for materializing ideas (Al-Qassar *et al.,* 2021). Some people create rough sketches because these scribbles can aid in capturing the desired images along with detailed notes and explanations of what is occurring in their imaginations.

The next phase is Production. The Production phase entails the creation of the motion graphics, including the aural component. In this phase, the storyboard that was previously created is implemented to create a motion graphic.

The concluding phase is Post-production. The objective of post-production is to improve the motion graphic by making it more natural, realistic, or fluid. Lighting effects, shadows, and additional elements are added to the motion graphic to complete it (See www.crossfeyer.com)**.** There are numerous elements that can be added to improve the quality of the motion, including the addition of sound.

The audio discussion combines two media to convey information to the audience: Specific audio and pre-made illustrations. Audio consists primarily of a variety of elements, such as sound effects for graphic elements such as movement, background sound dependent on the atmosphere, and occasionally voice over (Zhang, 2013). It is essential to choose a language that is compatible with the motion graphic when selecting audio. Movements, actions, and other animation types become more impactful when accompanied by sound.

When mixing audio, it is essential not to include too many sound effects at once or to have excessively lengthy stretches of silence (Han *et al.,* 2019). Assuming we are not in a soundproof chamber, our ears should always be able to detect sounds. These are the sound effects that should be included in the motion graphic so as not to interfere with other sound effects.

To enhance this motion graphic, we used the "Pop 01" sound effect to complement the element movements.

Moreover, determining whether to select the appropriate audio is essential, particularly when using voice over. There are two ways to approach vocal acting. First, the voice actor can record their voice following the completion of the animation. This strategy necessitates ample time for the voice actor to convey the message or information. Second, the voice actor records their performance prior to the creation of the animation. In preparation for voice recording, it is necessary to brief the voice actor on the motion graphic's concept. The strategy chosen depends on the specifics of the undertaking (Berry and Brown, 2019).

In our implementation, a male voice was utilized for the voiceover. The final voice over should sound informative and pleasant (See **Table 1**).

Table 1. Intonation in scripts.

Scene	Script	Gambar	Description
1	*Halloo, aku Chikube, di video ini aku akan menjelaskan tentang Ayam Kampung Unggul Balibangtan atau biasa disebut Ayam KUB.*		In this scene, the voice-over artist uses a slightly high intonation to introduce the mascot and make it sound friendlier. This can create a positive and friendly impression on the listeners.

2	*Ayam KUB adalah ayam kampung galur baru yang diciptakan oleh Badan Litbang Pertanian yang bertujuan untuk meningkatkan produksi telur ayam kampung agar mampu memenuhi kebutuhan masyarakat.*		In this scene, the voice-over artist uses a slightly fast intonation to provide general information about Ayam KUB. This aims to deliver information in a concise yet clear and easily understandable manner.
3	*Ayam KUB memiliki keunggulan yang lebih banyak loh dari pada ayam kampung pada umumnya.*		In this scene, the voice-over artist uses a slightly high intonation to capture the listeners' attention to the next scene. This adds a dynamic touch and keeps the listeners engaged and focused on the content being presented.
4	*Pertama masa mengeram ayam yang rendah berkurang hingga 10%, kedua bobot badan pada umur dua puluh minggu sudah mencapai 1200 sampai 1600 gram, ketiga produktivitas telur semakin meningkat setiap tahunnya yaitu 160 sampai 180 butir lalu Ayam KUB memiliki sifat adaptif sehingga tahan terhadap penyakit.*		In this scene, the voice-over artist uses a slow intonation to explain the key points about the advantages of Ayam KUB. This gives a serious impression and emphasizes the information being conveyed, enabling the listeners to remember and understand it well.
5	*Pemeliharaan umur satu sampai empat minggu atau biasa dikenal dengan periode brooding.* *Periode brooding adalah empat minggu awal hidup bibit ayam yang merupakan periode sangat penting karena merupakan poin awal untuk menghasilkan produksi yang bagus.*		In this scene, the voice-over artist uses a normal intonation to explain the brooding period. This provides a neutral and informative impression, allowing the listeners to focus on the given explanation.

6	*Pada periode ini kamu harus mempersiapkan kandang yang layak dan nyaman untuk bibit ayam, air minum yang berisi larutan gula lima persen, serta menyalakan pemanas enam jam sebelum datangnya bibit ayam sampai tercapai suhu 32 sampai 33 derajat celcius.*		In this scene, the voice-over artist uses a slow intonation when mentioning important aspects during the brooding period. This helps in emphasizing the crucial information, enabling the listeners to follow and understand it effectively.
7	*Periode Pertumbuhan.* *Pada fase ini harus memperhatikan kepadatan kandang, program vaksinasi pada umur 4 hari, umur 21 hari, dan umur 3 bulan dengan optimasi pemberian pakan dua kali sehari*		In this scene, the voice-over artist pauses in their intonation when stating the title of this motion segment and when explaining the age of the chickens for vaccination. These pauses provide clarity and separation between different pieces of information in the video.
8	*Periode penetasan telur.* *Untuk pemeliharaan periode ini pada umur kurang dari 20 minggu biasanya ditujukan untuk menghasilkan telur tetas. Periode penetasan diawali dengan pemilihan calon induk dan pejantan yang mana calon pejantan yang akan dipakai hanya sekitar sepuluh sampai dua belas persen dari betina.*		In this scene, the voice-over artist pauses in their intonation when stating the title of this motion segment and adjusts their intonation with the motion assets. This helps in maintaining harmony between the voice and visual movements, enhancing listener satisfaction.

9	*Perkandangan.*		In the following scenes, the voice-over artist uses a normal intonation with a slight rise when mentioning the types of cages. This aids in emphasizing and drawing attention to the mentioned cage types.
	Ada beberapa syarat yang harus dipenuhi saat kita membangun kandang. Yang pertama kandang battery, konstruksi kandang harus kuat, mudah dirawat dan tahan lama. Yang kedua kandang berpagar, konstruksinya harus mendukung kebutuhan pertumbuhan dan perkembangan ternak. Yang ketiga kandang postal, bentuk kandang harus disesuaikan dengan kebutuhan usaha.		
10	*Pakan.*		In this scene, the voice-over artist slows down their intonation when mentioning the title of this motion segment but returns to a normal intonation afterward, with a slight pause when mentioning the types of feed. This helps in providing structure and separation between different pieces of information in the video.
	Pakan Ayam KUB diberikan dalam bentuk tepung kasar atau crumble, bahan pakan pada ayam dapat diberikan dengan lebih dari dua campuran. Jenis pakan yang diberikan yaitu dedak padi, dedak jagung, bukil kedelai, sorghum dan sagu.		
11	*Sekian video dari kami, terima kasih sudah menonton!*		In this final scene, the voice-over artist raises the intonation at the end to capture attention and indicate that the video has ended. This creates a strong closing impression and ensures that the listeners are aware that the video has concluded.

Rendering is the process of creating three-dimensional data from a two-dimensional image. This method seeks to provide users with 3D data visualization on monitors and printers that can only display 2D data. In Motion Graphics, Cultivation of Exceptional Kampung Chicken, Balitbangtan creates multiple illustrations.

During this phase of rendering, you must configure settings to accomplish the desired outcome. First, determine the required format (typically MP4). While mp4 is designed to make multimedia applications on the Internet quicker and of higher quality, m4v is designed specifically for Apple products such as iPod, iPhone, and iTunes, so be sure to check back. Select "Audio Output" to display audio, and then select "OK" Then, select a storage location for the video. Next, navigate to the location where you'd like to save the video results, and

don't neglect to give them a name. Once everything is in place, we can create a video by clicking the render button.

The presentation phase is the final phase. This phase concludes the production of motion graphics. Before posting works or motion graphics, it's a good idea to solicit feedback and suggestions so we can identify any flaws. Before posting, it is essential to demonstrate artwork to loved ones in order to reduce errors. People who don't comprehend motion graphics are the best people to consult because they can tell us what they see, what they like, and what they don't understand. It is best to revise it based on the title, misunderstanding the plot, and other criticisms and suggestions. After making all corrections, return the work to the same individual. Is it challenging to comprehend the supplied motion? If not, this work or motion graphic can be published immediately.

4. CONCLUSION

On the basis of the preceding discussion regarding the use of sound effects and voice-over techniques in the motion graphic "Ayam Unggul Balitbangtan" it can be inferred that accurate selection of audio is essential for its use in motion graphics. With the addition of sound, the movements and actions depicted will appear more impactful. Before determining or creating the audio to be used in the motion graphic, pre-production should be completed. This ensures that what we will be working on is accurately portrayed and consistent with the intended concept.

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