




# Content analysis of different types of nirmana teaching videos and the viewers' perception



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## ABSTRACT

Nirmana is a mandatory basic competency for academic artists. Strengthening the basics of Nirmana is compulsory so that fine artists and designers maintain their bargaining position in society. One of the rising media to learn Nirmana is teaching videos available on online platforms such as YouTube. With the many types and styles of Nirmana learning videos available on YouTube, a study to analyze which type of videos are effective in learning Nirmana is needed. This study uses content analysis to classify videos that convey information about Nirmana into four groups: live demonstration videos, animated videos, conventional lecture videos, and tutorials (Step-by-step). To determine the video's effectiveness, the responses from viewers were analyzed using a pragmatic approach. From the analysis results, teaching videos in the form of live demonstrations, animations, and tutorials proved to be the most effective in assisting viewers to learn about Nirmana. Videos with these concepts can convey information in an engaging, clear, and visually understandable way, thus improving student understanding more effectively. Integrating the appropriate teaching videos into the Nirmana curriculum, such as live demonstrations for practical projects and animated videos or tutorials or theory, can help students understand Nirmana better.

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## 1. Introduction

Due to technological advances, many jobs and occupations are shifting. For example, in the translation field, the job of a human translator will probably shift to post machine translation editor [1], [2]. This phenomenon also happens in other field such as management and business [3], [4]. The same applies in graphic design and visual art. Graphic designers and visual artists are demanded to be "better" than AI or the users without any academic background [5]. Understanding and being capable of implementing the principles of Nirmana can set the boundary between an artist or graphic designer and a typical user of graphic design apps who have no understanding of graphic design concepts. Understanding the concept of Nirmana can also help visual artists and designers utilize any designing apps or AI to create better and more authentic works [6], [7]. In the future, mastering the concepts behind the algorithms of such AI and apps will be the bargaining position for artists and graphic designers. Such understanding will fuel the creative process of creating artwork, utilizing tools or applications, and evaluating the created works. Therefore, any efforts that can support and revolutionize the learning process of Nirmana are essential. 'Nirmana,' derived from the Sanskrit 'Nirman,' meaning creation or formation, is a term that holds significant weight in the art world [8]. It refers to the process of creating or composing a visual or artistic work, incorporating elements such as line,

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shape, texture, color, and space [9]. This fundamental concept is not just a theoretical idea, but a practical tool used in design and fine art education to develop a solid understanding of basic compositional principles and techniques.

In the realm of fine art, the concepts of Dwimatra and Trimatra Nirmana are fundamental principles used to explore and understand the dimensions and elements of artistic creation. These terms, rooted in Indonesian art education, relate to two-dimensional (*Dwimatra*) and three-dimensional (*Trimatra*) composition. Both provide a framework for artists to explore the depth of form, space, and perception. *Dwimatra Nirmana* refers to two-dimensional design or composition [10]. This concept is crucial in understanding how artists and designers arrange visual elements on a flat surface, such as paper, canvas, or digital screen. The key elements of *Dwimatra Nirmana* are line, shape, color, texture, and space. *Trimatra Nirmana* involves three-dimensional design or composition [11]. This concept extends the principles of Dimensional Nirmana into the physical world, where depth and volume become essential considerations. The key elements of the Trimetric Nirmana are shape, space, texture, light and shadow, and perspective. While *Dwimatra* and *Trimatra Nirmana* are distinct concepts, they are deeply interconnected. Two-dimensional art often serves as a blueprint or foundation for three-dimensional creations. For instance, a sculptor may start with sketches and drawings (*Dwimatra*) before transforming them into sculptures (*Trimatra*). Similarly, three-dimensional objects can be represented on a two-dimensional plane through techniques such as drawing, painting, and photography, effectively bridging the gap between the two realms.

Various easy-to-use online-based design applications are available today. It triggers a debate about the need for competence in the field of art and design that seems to be replaced by the presence of these applications. Nirmana is a basic science in art and design that is a mandatory basic competency for academic artists. Therefore, strengthening the basics of Nirmana is compulsory so that fine artists and designers maintain their bargaining position in society. The public will eventually understand the *difference* between the work of artists or designers and users of graphic design applications who do not have a background in fine arts education. Learning Nirmana, the fundamentals of visual design and composition, requires innovative and practical approaches to ensure students' in-depth understanding (Hidayatullah et al., 2023). One learning method that is gaining popularity and proving effective is the use of teaching videos [13], [14]. Videos can be particularly effective for teaching Nirmana, as they can visually demonstrate artistic techniques, showcase artworks, and provide context and analysis [15], [16]. Teaching videos can also use visual elements such as animation that can aid the viewers to understand better the visual elements of Nirmana [17]–[19]. However, it is still necessary to find out which type of video is effective in teaching the concept of Nirmana to students. Several types of learning videos have been developed so far, including live demonstration videos, tutorials (Step-by-step), animated videos, interactive videos, case study videos, expert interview videos, creative experiment videos, and review and critique videos [16], [17], [20]. Many of these videos are found on several social media and online digital platforms, such as YouTube, Instagram, and Facebook [21].

Previous studies have analyzed the content of teaching videos. A research by [22] studied the application of teaching videos for primary school students and found that one of the main problem in using videos for educational purposes is finding the appropriate videos. Another research by [23] examined the use of teaching videos in science learning and found that using teaching videos improved teaching effectiveness by 59,52%. However, these previous researches have not discussed the use of videos in teaching Nirmana, or which types of videos are more appropriate for teaching Nirmana. These are the gaps that the current research seeks to answer, which types of videos are more effective to use in learning Nirmana and how effective they are. One measure of the success of a YouTube video in communicating its material is the engagement between the video, creator, and audience, which can be seen from the number of likes, dislikes, and comments on the video's page [24], [25]. Pragmatically, likes and dislikes can be considered as expressive speech acts from the audience towards the video (Kurniawan & Caresta, 2024). Meanwhile, the speech acts that can be identified in the interaction in the comment section can indicate various information such as understanding, agreement or disagreement, opinion, and affective statements [27], [28]. By employing content analysis and a

pragmatic approach, this study aims to pinpoint the most effective type of video for delivering educational material about Nirmana. The findings of this research can serve as a valuable guide for designing compelling and effective learning videos on Nirmana in the future.

## 2. Method

This qualitative research uses content analysis and pragmatic approaches. Teaching videos should consider the cognitive load, learner engagement, and promoting active learning [29]. The definition regarding teaching videos mostly deals with the concept of the video instead of the types of content. Thus, there is no single limitation of what content or features that teaching videos may present. Therefore, in order to highlight the key elements that make teaching video effective, this study classified Nirmana teaching videos based on the similarities of the content presented, particularly the visual elements and the delivery [30]. YouTube platform has an algorithm that displays selection of videos according to the keywords, engagement, and other elements. Therefore, the data for this study were selected using purposive random sampling by selecting the top videos displayed under the search keyword of "Nirmana" uploaded on YouTube Indonesia from the last 5 years, from October 2018 to October 2024. The criteria for the video selection are those that have had more than 1,000 viewers. From the October 20, 2024 search results, 12 videos were obtained. Using content analysis, the videos were then categorized into four groups, namely live demonstration videos, animated videos, conventional lecture videos, and tutorials (step-by-step). These categories were derived from the similarities of visual contents and delivery styles among the top videos generated by the keyword search.

The effectiveness of the videos in conveying information was assessed by the type of comments written by the audience. Audience comments were analyzed using the pragmatics approach proposed by Searle. According to Searle (2005), a speech act is an action or attitude delivered by a speaker using verbal and non-verbal utterances. He proposed five types of speech acts: (1) assertive speech acts express the speaker's attitude toward certain truth of the proposition; (2) directive speech acts are used to demand the speech partner to do something; (3) commissive speech acts are statements of the speaker's commitment to do something for or to the speech partner in the future; (4) expressive speech acts serve to express, reveal, or inform the speaker's psychological attitude toward a situation or proposition; and (5) declarative speech acts are illocutionary speech acts that, under the right performance conditions, will result in a good correspondence between the proposition's content and reality [31][32]. By analyzing the comments written by the viewers, their understanding and attitude towards the video can be identified. Thus, video types that are effective in conveying material about Nirmana can be identified. The results of the analysis are then described narratively to draw conclusions. The design of the research method is presented in Fig. 1.

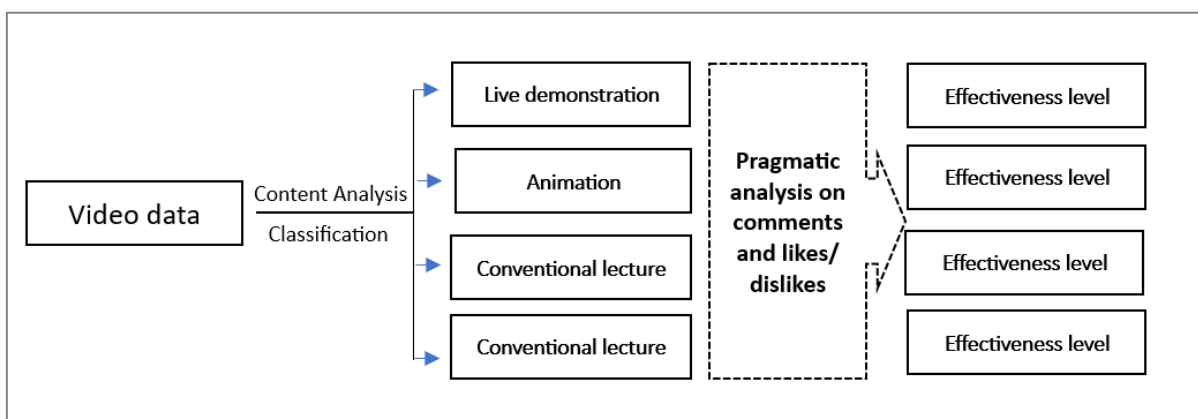


Fig. 1. Research framework

### 3. Results and Discussion

#### 3.1. Video Contents

According to the criteria set in the methodology, the following videos were selected as the research data for each category:

##### 3.1.1. Live demonstration videos

Table 1 shows the live demonstration video data. Live demonstration are videos which showcase the content creator direct action in making Nirmana arts. The shooting usually uses close-ups and the right camera angle to show details. The three videos above directly show the way the content creators draw two dimensional Nirmana arts from scratch. The camera angle focuses on the paper and the hands of the creators along the process of drawing Nirmana projects. This kind of videos directly shows the viewers how to create Nirmana arts without giving any prior theory or lectures regarding Nirmana. This type of videos is practical and can be most useful for students who have received the theory in class or need to work on practical Nirmana projects.

**Table 1.** Live Demonstration Video

Channel	Title	Post Date	Duration	Like	Views	Link	Comment
Ari Dwi Nugroho_25	Step by Step Membuat Gambar Nirmana Garis 2D	February 2, 2020	10:06'	723	34,484	<a href="https://www.youtube.com/watch?v=Z81aPL9Fb6o">https://www.youtube.com/watch?v=Z81aPL9Fb6o</a>	17
Brigita Vanessa	Nirmana Garis Lurus	September 6, 2020	7:03'	6,8K	361,253	<a href="https://www.youtube.com/watch?v=bhJUM53nzyg">https://www.youtube.com/watch?v=bhJUM53nzyg</a>	108
Anatalis Nirmana	Gambar Nirmana Garis Miring Mudah	October 15, 2023	1:42'	412	28,123	<a href="https://www.youtube.com/watch?v=Ontc_wUN7Ss">https://www.youtube.com/watch?v=Ontc_wUN7Ss</a>	18

##### 3.1.2. Animation videos

Table 2 presents animation video data. Animation videos combine explanation about Nirmana and animated videos as a means to present a better perception. It can be a fully animated video with voice over or a combination between content creator explanation on cam with animated illustration. The advantage of using animation video, particularly in learning Nirmana, is the capability of animation to provide graphic illustration both for 2d and 3d Nirmana. Both video 1 by Artful Moniz and video 3 by Guru Sinau official use fully animated content with voice over to explain Nirmana, while video 2 combines animated content with direct lecture by the creator. This type of videos can combine lecture or direct explanation with visual illustration that can give better perspective for learners to understand the materiel delivered. This type of videos are commonly shorter, which may be caused by the efforts needed to make the animation or the effectiveness of the illustration to deliver the material.

**Table 2.** Animation Videos

Channel	Title	Post Date	Duration	Like	Views	Link	Comment
Artful Moniz	Nirmana Bidang sebagai Elemen Visual Seni Rupa • Kenapa Kita Harus Belajar Rupa Dasar Bidang ?	September 13, 2021	5:36'	69	1,300	<a href="https://www.youtube.com/watch?v=6Akmw5A3a4g">https://www.youtube.com/watch?v=6Akmw5A3a4g</a>	5
Bahar Sinau	Materi Nirmana Dasar - Bahar Sinau SeniRupa	March 11, 2021	6:48'	61	1,636	<a href="https://www.youtube.com/watch?v=zKK8ltR-y4k">https://www.youtube.com/watch?v=zKK8ltR-y4k</a>	3
Guru Sinau Official	Konsep Dasar Nirmana	July 27, 2020	5:44'	81	1,763	<a href="https://www.youtube.com/watch?v=-bFzRzRHZqw">https://www.youtube.com/watch?v=-bFzRzRHZqw</a>	6

##### 3.1.3. Conventional Lecture videos

Table 3 presents conventional lecture video data. Conventional lecture videos present a recorded live lecture session made by the creator. These videos show a creator giving a lecture or explanation with fixed camera angle like a lecturer teaching in front of a conventional class. In other words, these are the online version of teaching in conventional class. The duration of

conventional videos is considerably longer, such as videos 1 and 2 that are 12 and 18 minutes respectively. In this type of videos, the interaction is not as direct as the conventional class. Although it is still possible to interact with the creator through the comment section, a delay is inevitable. Like conventional classes, the creator can use other supporting material to present on their videos such as real products that use Nirmana concept.

**Table 3.** Conventional Lecture Videos

Channel	Title	Post Date	Duration	Like	Views	Link	Comment
Kelas Kreatif	Dasar Desain Grafis #001 - Nirmana	Oktober 22, 2018	12:55'	1K	30,571	<a href="https://www.youtube.com/watch?v=3xWjjFxiWt4">https://www.youtube.com/watch?v=3xWjjFxiWt4</a>	58
Bangku Seni	Apa itu Nirmana? Pelajari Unsur dan Prinsip Seni Rupa	July 6, 2020	18:06'	472	14,997	<a href="https://www.youtube.com/watch?v=qP853aE4uDY">https://www.youtube.com/watch?v=qP853aE4uDY</a>	31
Rut Pratiwi Masudara	Prinsip Seni Rupa- Irama, Proporsi, Komposisi, Keseimbangan/Karya Seni 2D dan 3D/Unsur Seni	Agust 4, 2020	7:44'	254	23,273	<a href="https://www.youtube.com/watch?v=jaZaloENUB8">https://www.youtube.com/watch?v=jaZaloENUB8</a>	13

### 3.1.4. Tutorial Videos

Table 4 shows tutorial videos data. A tutorial video combines conventional lecture with live demonstration. In these videos the content creators explain the material about Nirmana and give a step-by-step explanation of how to do or make the Nirmana material presented in the videos. Since this type is a combination of lecture and live demonstration, the length of the videos can be medium or long, depending on the way the creators deliver the material. Tutorial videos have the advantage of using the keyword “tutorial” or “how to” on their titles, which are commonly used by viewers who look for the way to learn or understand something.

**Table 4.** Tutorial (*Step-by-step*) Videos

Channel	Title	Post Date	Duration	Like	Views	Link	Comment
Heysalsal	[Basic Design#1] Apa itu Nirmana?	September 6, 2020	4:05'	238	11,959	<a href="https://www.youtube.com/watch?v=O_Io4eJitio">https://www.youtube.com/watch?v=O_Io4eJitio</a>	8
Keke Genio	Belajar Desain Grafis dari Nol (Color, Layout, Typografi, dll)	April 30, 2024	10:00'	1,5k	30,542	<a href="https://www.youtube.com/watch?v=Nfd4UGgmdhl">https://www.youtube.com/watch?v=Nfd4UGgmdhl</a>	22
disitu doni	Tutorial Corel Draw/Nirmana Garis/Dasar Desain Grafis	July 22, 2022	12:59	105	7,824	<a href="https://www.youtube.com/watch?v=maoKHNv5Ycc">https://www.youtube.com/watch?v=maoKHNv5Ycc</a>	5

## 3.2. Viewers' Perception

### 3.2.1. Live Demonstration Video

The three live demonstration videos received 17, 18, and 108 comments, respectively, consisting of three types: assertive, affective, and directive. The most common affective speech act is thanking, with 26 comments (18%). The speech act of thanking is usually done when the speaker feels benefited or helped by others. This can be interpreted as an understanding of the information conveyed by the animated video. The following comments are assertive, with 56 comments (39%) stating that the content presented is useful. This also shows that the audience can understand the content easily so that the information presented benefits them. However, in addition to the assertive comments that expressed understanding of the animated video content, 13 comments (9%) provided personal opinions, and four comments (3%) provided

personal information out of context. This can be interpreted as the audience's ignorance toward the content or video content.

**Table 5.** Comment samples of Live Demonstration videos

Speech act	Original Comment	English translation	Attitude	Video Link
Assertive	Wangun Cakk	It's good.	Positive	<a href="https://www.youtube.com/watch?v=Z81aPL9Fb6o">https://www.youtube.com/watch?v=Z81aPL9Fb6o</a>
Affective	Terima kasih sudah memberikan kemudahan untuk ide menggambar Nirmana 2d ini.	Thank you for making it easy and giving me idea to draw this Nirmana 2d.	Positive	<a href="https://www.youtube.com/watch?v=bhJUM53nzyg">https://www.youtube.com/watch?v=bhJUM53nzyg</a>
Directive	izin share ya kak untuk materi pembelajaran	Permission to share it for learning material	Positive	<a href="https://www.youtube.com/watch?v=bhJUM53nzyg">https://www.youtube.com/watch?v=bhJUM53nzyg</a>
Assertive	salah ketik pencarian gw mau nyari band nirvana	I mistyped, I was looking for nirvana band.	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=bhJUM53nzyg">https://www.youtube.com/watch?v=bhJUM53nzyg</a>

Directive comments were found in the form of requests for permission to share the video, questions about other Nirmana techniques, and invitations to motivate work. There were 26 comments (18%) asking for permission to share the video as educational material. This shows that the live demonstration video is considered easy to understand and effective as a learning medium about Nirmana. There were four comments (3%) that motivated to create works that were the result of basic understanding of Nirmana. However, 13 comments (9%) asked about the contribution of basic elements of Nirmana in human life. This could mean that they do not fully understand or consider that the YouTube platform can be used as an interactive consultation medium. Overall, a significant 89% of viewer comments affirm the effectiveness of the live demonstration videos in imparting knowledge about Nirmana. These comments predominantly consist of assertive remarks, affirming the usefulness of the video content (39%), and affective speech acts, expressing gratitude to the audience (18%). Additionally, directive comments requesting permission to share and use the video as an educational tool (18%) and motivation to create art (3%) further underscore the videos' value. Only a minor 11% of the audience comments suggest a lack of full understanding or complete ignorance of the video content.

### 3.2.2. Animation Videos

The three animated videos received 3, 5, and 7 comments. The most common affective speech act is thanking, which is three comments (18%). Five assertive comments (40%) stated that the content presented was useful. This also shows that the audience can understand the content easily so that the information presented benefits them. Meanwhile, two directive comments (12%) expressed confusion or incomprehension of the video content. There were three comments (18%) that asked for permission to share the video as educational material, and there were two comments (12%) that motivated them to create artwork as a result of their basic understanding of Nirmana.

**Table 6.** Comment samples of Animation videos

Speech act	Original Comment	English translation	Attitude	Video Link
Assertive	Mantav ka penjelasan tentang rupa dasar bidang nya	Your explanation about basic fine art form is great.	Positive	<a href="https://www.youtube.com/watch?v=6Akmw5A3a4g">https://www.youtube.com/watch?v=6Akmw5A3a4g</a>
Affective	Terimakasih ilmu dari videonya !	Thank you for the knowledge in the video	Positive	<a href="https://www.youtube.com/watch?v=-bFzRzRHZqw">https://www.youtube.com/watch?v=-bFzRzRHZqw</a>
Directive	Permisi kak, Nama saya adit mohon maaf mau nanya. Boleh izin ambil Videonya buat tugas UKK?	Excuse me, my name is Adit, sorry, I want to ask. Can I take the video for UKK task?	Positive	<a href="https://www.youtube.com/watch?v=-bFzRzRHZqw">https://www.youtube.com/watch?v=-bFzRzRHZqw</a>

Directive	Adakah Nirmana ini satu teknik dlm penghasilan seni???	Is Nirmana a technique in art creation?	Negative	<a href="https://www.youtube.com/watch?v=-bFzRzRHZqw">https://www.youtube.com/watch?v=-bFzRzRHZqw</a>
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88% of the viewers' comments indicated the effectiveness of the animated video in conveying information about Nirmana. The comments consisted of assertive comments stating that the video content was useful (40%), affective speech acts expressing the audience's gratitude (18%), and 18% directive comments requesting permission to disseminate and use the video as an educational medium, and 12% comments motivating to create more. Only 12% of the audience comments implied that they did not fully understand the video content or did not know at all.

### 3.2.3. Conventional Lecture Videos

Videos that only used conventional lecture techniques received a total of [102] comments. Of all the comments, only a moderate number indicated an understanding of the video content, namely 34 assertive comments (34%) stating that the video content was useful, 28 affective comments (28%) expressing gratitude, and 12 expressive comments (11%) praising the creators. Meanwhile, 16 comments (16%) were directive speech acts in the form of questions about the Nirmana, indicating that the audience did not understand the video content. The remaining 11 comments (11%) are questions or statements that are irrelevant to the content of the Nirmana.

**Table 7.** Comment samples of conventional lecture videos

Speech act	Original Comment	English translation	Attitude	Video Link
Assertive	Lancar banget jelasinnya kayak jalan tol...	The explanation is so smooth, like a highway.	Positive	<a href="https://www.youtube.com/watch?v=3xWjjFxiWt4">https://www.youtube.com/watch?v=3xWjjFxiWt4</a>
Affective	Terimakasih ilmunya kak 🙏	Thank you for the knowledge 🙏	Positive	<a href="https://www.youtube.com/watch?v=qP853aE4uDY">https://www.youtube.com/watch?v=qP853aE4uDY</a>
Directive	BG minta nomor wa nya dong, saya mau nanya tentang seni	Can I have your WhatsApp number, I want to ask about art.	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=qP853aE4uDY">https://www.youtube.com/watch?v=qP853aE4uDY</a>
Directive	Saran : Mini upgrade buat kontennya, bang coba kalau pakai dedicated mic.	Suggestion: upgrade for your content, try using dedicated mic.	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=jaZaloENUB8">https://www.youtube.com/watch?v=jaZaloENUB8</a>
Directive	Ode mana Ode	Where is Ode?	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=3xWjjFxiWt4">https://www.youtube.com/watch?v=3xWjjFxiWt4</a>

With recorded-live content, many viewers assume that the content delivered is like a personal consultation. This is not in line with the YouTube platform, which tends to be used for one-way communication. There is not enough room for two-way communication through the comment section. In addition, there were some comments that indicated that the audience was not focused on the content, such as assertive comment that expressed the audience's personal opinion and questions or praise that is out of context. This indicates that with the concept of live-shot video, some viewers were focused on the speaker's appearance than the material presented. This finding suggests that videos using only conventional lectures gained 73% of positive comments related to Nirmana content. With this kind of video, viewers feel like they are watching a live speech, just like conventional classroom materials from teachers. This can be seen from the portion of comments that give opinion, praise, or raise questions, both relevant and irrelevant to the topic (27%). Some audience members were also distracted and focused more on the speaker or the technical things in the video than the material.

### 3.2.4. Tutorial (Step-by-step) Video

The tutorial videos in this study received 5, 8, and 22 comments. Of all the comments, only a small number indicates an understanding of the video content, namely 14 assertive comments (40%) stating that the video content is useful, 11 affective comments (31%) expressing gratitude, and four directive comments (11%) inviting other audiences to be creative. There were also four directive speech act comments in the form of questions about the Nirmana

(11%), indicating that the audience did not understand the video content, and two comments (7%) in the form of information irrelevant to the Nirmana content.

**Table 8.** Comment samples of tutorial videos

Speech act	Original Comment	English translation	Attitude	Video Link
Directive	Ada referensi untuk belajar Nirmana bagi orang awam?	Is there any reference to learn Nirmana for beginner?	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=O_Io4eJitio">https://www.youtube.com/watch?v=O_Io4eJitio</a>
Affective	Thanks sudah berbagi, sangat membantu, tolong terus di bimbing!	Thank you for sharing, it's so useful, please keep guiding us!	Positive	<a href="https://www.youtube.com/watch?v=Nfd4UGgmdhI">https://www.youtube.com/watch?v=Nfd4UGgmdhI</a>
Assertive	Kalau pusing mikirin font psychology dan tetek bengek lainnya, caripartner adalah solusi buat delegasiin jobdesk bikin desain *eh 🤔	If you're dizzy thinking about psychological font and other stuff, getting a partner is a solution for delegating the job desk of making a design.	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=Nfd4UGgmdhI">https://www.youtube.com/watch?v=Nfd4UGgmdhI</a>
Directive	Kk' belajar grafik desainer gimana???	Where did you learn graphic design?	Neutral/ out of context	<a href="https://www.youtube.com/watch?v=maoKHNv5Ycc">https://www.youtube.com/watch?v=maoKHNv5Ycc</a>
Directive	Ka mau bikin garis"nya yg banyak gitu pencet ap namanya ka	I want to make the lines, what do I press?	Negative	<a href="https://www.youtube.com/watch?v=maoKHNv5Ycc">https://www.youtube.com/watch?v=maoKHNv5Ycc</a>

From the analysis, the videos that received the most positive comments that indicate their effectiveness were live demonstration videos (89%), animation videos (88%), and tutorials (82%). Demonstration videos directly invite viewers to practice the theory of Nirmana or use the concept of learning by doing. The effectiveness of this video is shown by the number of comments stating that the video is useful or helpful. Videos with animation provide a visual overview that makes the audience better understand the Nirmana concept being taught. The animations provide a direct picture of the Nirmana concept being taught, thus increasing the effectiveness of the learning video. Conventional video lectures are moderately effective in delivering material about Nirmana (73%). This is because the audience does not get a direct picture of the application of the concept of Nirmana. Viewers might think that the concept of lecture video is like a classroom lesson, leading to many questions, while the platform does not provide enough space for detailed and real time questions and answers. In addition, some comments also indicate that they were distracted by the appearance or the way the creator delivered the material.

#### 4. Conclusion

Teaching videos in the form of live demonstrations, animations, and tutorials are more effective and well perceived by the viewers in learning Nirmana. Nirmana learners who seek to learn it practically or work on projects can choose live demonstration to see how to create certain types of Nirmana projects firsthand. Animation videos provide illustration that can help the viewers understand the concept of Nirmana, both the 2D or 3D ones. Graphic illustration can show the viewers the application of Nirmana principles in better perspective than conventional written or oral explanation. Videos using the conventional lecture method have a low level of effectiveness due to the incompatibility with the platform and their delivery style. YouTube cannot accommodate direct interaction or discussion and the delivery style in conventional lecture videos tends to be monotonous. Integrating the appropriate teaching videos into the Nirmana curriculum, such as live demonstration for practical projects and animated videos or tutorial or theory, can help students understand Nirmana better.

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### Declarations

- Author contribution** : DTA: Research idea, analyzed the data, and wrote the article; ARW: analyzed the data and wrote the article; SM: analyzed the data and wrote the article; RW: analyzed the data and wrote the article; JPY: analyzed the data and wrote the article.
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