

FACTORS OF EFFECTIVENESS OF 2D ANIMATED VIDEOS IN DIGITAL ADVERTISING

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***Abstract.** This paper investigates which elements of animated videos have the greatest impact on audience attention, emotional response, and content memorability. Key criteria for the effectiveness of animated videos were identified and applied to the creation of an original promotional video aimed at attracting prospective students to design courses. Developed set of recommendations are intended to improve the effectiveness of communication with the target audience. Their implementation will enhance audience engagement, improve the quality of animated videos, strengthen their recognizability and emotional impact, and thereby contribute to increasing the competitiveness of multimedia content in the Ukrainian market.*

***Keywords:** animation, 2D animation, video advertising, vector graphics, educational courses, target audience, visual effects.*

Introduction

In the contemporary information environment, visual communication plays a key role in how audiences perceive brands, educational products, or social initiatives. With the development of digital technologies [1, 6, 7] and the active use of social media [10, 17], animated videos have become one of the most effective tools for capturing attention and rapidly conveying information. Unlike static content, animation combines dynamics, color, sound, and visual accents, which ensures deep emotional engagement [12].

In recent years, animation has been actively integrated into advertising, educational, and social projects. Researchers point out that motion graphics are capable

not only of quickly capturing the user's attention but also of making information more comprehensible due to visual metaphors, rhythmic structure, and well-thought-out composition [15].

The growing role of animated videos is particularly relevant in the field of education and professional training. Educational courses, specifically in the domain of design, increasingly utilize short animated clips to capture the attention of prospective students and present material in a simple, accessible, and dynamic manner. Such videos not only inform but also establish an emotional connection with the viewer, build trust in the educational product, and contribute to differentiation among competitive offerings [14].

Despite the evident popularity of animation, the number of studies examining the impact of specific animation elements on viewer behavior and emotional engagement remains limited. A significant proportion of existing research focuses on the technical aspects of video production or general advertising issues, while providing insufficient insight into the particular visual and structural techniques that make an animated video effective for its target audience. Therefore, there is a need to investigate which specific elements of animated videos have the greatest impact on attention, emotional response, and content retention.

The purpose and objectives of the research

The aim of the study is to enhance the impact of animated videos on the behavioral, cognitive, and emotional responses of various target audience groups through developed guidelines for their creation process.

The key objectives of the study include:

- to conduct an analysis of animated advertising videos in order to identify successful approaches and factors influencing audience engagement;
- to design and conduct a survey among the target audience to determine the criteria by which animated videos are retained in memory and achieve their communication goals;
- to identify the main factors contributing to the effectiveness of animated videos, including storyline, visual style, color palette, movement rhythm, duration, and interactive elements;
- to develop an animated video based on the results of the analysis and survey, taking into account the identified criteria;
- to evaluate the effectiveness of the developed video in order to determine its compliance with quality standards and its impact on the target audience;
- to formulate content guidelines for animated videos for further use in advertising and educational projects.

The developed content guidelines for animated videos will contribute to higher viewer engagement, better information retention, and a more effective communication strategy.

Main part

1 Analysis of current research

Today animated videos occupy a significant place in communications, advertising, and educational projects. By combining motion, color, and sound, they facilitate rapid attention capture and present information in a comprehensible, emotional format. In a digital environment where viewers interact with vast amounts of content daily, short animated videos often prove to be the most effective tool for establishing contact with the audience [9, 21]. The demand for this format is increasing, particularly among educational platforms and courses that utilize animation to explain material and engage prospective higher education students. Within this domain, it is crucial not only to create an appealing visual sequence but also to understand which animation elements, such as color palette, rhythm, content delivery, and stylistic approach, influence emotional perception and information retention [13].

Despite the widespread adoption of animated videos, comprehensive research into their impact on target audiences remains insufficient. The majority of studies focus on technical aspects or general advertising principles, while the questions of emotional influence and the effectiveness of visual solutions remain under-researched [22]. Therefore, it is important to determine which elements of an animated video have the greatest influence on viewer attention and emotional response, thereby enabling the formulation of recommendations for developing more compelling and competitive video materials.

In the modern communication system, animated videos are viewed as one of the most effective means of information delivery. The scholarly literature emphasizes that animation is capable of combining emotional impact, informativeness, and visual appeal, which leads to its widespread use in advertising, education, social campaigns, and promotional materials [14]. Researchers underscore that key elements, such as storyline, execution style, color palette, composition, motion dynamics, character design, and audio accompaniment, play a crucial role in the perception of an animated video. The combination of these factors forms a cohesive message and determines the level of emotional and cognitive impact on the viewer.

An important factor in the effectiveness of animated videos [20] is the use of color and its influence on the viewer's emotional state. A successful combination of color palette, movement pace, and sound design enables the creation of videos that evoke a distinct emotional response and facilitate better information assimilation [9].

An analysis of both Ukrainian and international scholar sources [2-5, 16, 26] indicates that the effectiveness of an animated video depends on the integration of several key components as a well-developed storyline, rhythmic dynamics, a harmonious color palette, expressive character design, balanced composition, and appropriate interactive elements. These very factors will form the foundation for creating the experimental animated video and will provide the basis for evaluating its impact on the target audience, which serves one of the primary objectives of this study.

2 Factors Affecting the Effectiveness of Animated Videos

The effectiveness of animated videos is determined not by one, but by a entire set of interrelated factors that influence how the viewer perceives information, reacts to visual and audio signals, and remembers the main message. Based on the analysis of modern research in the fields of animation, graphic design, and perception psychology, it is possible to identify key elements that shape the emotional and cognitive response of the audience [22].

2.1 Visual influencing factors.

The visual component of an animated video is the primary factor influencing audience perception, as images, color, and motion are the first elements to shape the viewer's emotional response and determine whether they will continue watching. Studies in animation and graphic design indicate that people react instantly to visual signals. Therefore, the storyline, character stylization, composition, and frame rhythm must be coherent and functional [15]. In the context of intense information competition, the first seconds of a video play a decisive role, while a clear focus on the main elements and well-designed transitions between scenes help maintain the viewer's attention [14].

This section examines the main visual factors that influence the effectiveness of animated videos.

1. The storyline and structure of the video.

The storyline serves as the foundation of an animated video, as the sequence, logic, and development of events are the primary means through which the core message is conveyed and the emotional direction of perception is formed. Research on visual storytelling emphasizes that a well-structured narrative helps viewers navigate the presented material more quickly and remember key messages more effectively [3].

Clear dramatic structure is particularly important for short animated videos and it typically consists of several logical stages:

- an opening scene that immediately establishes the context and captures attention;
- the main content section, where the key information is delivered;
- a climactic moment that generates the strongest emotional response;
- a final emphasis or conclusion that reinforces the main message.

Breaks in narrative logic or an excessive number of secondary details reduce audience engagement, as viewers expend attention on elements that do not convey essential information. Researchers also note that first impressions are formed within the first 2-3 seconds. Therefore, the opening of a video should be highly expressive quickly immerse the viewer in the topic [15].

An important aspect of the storyline is simplicity and conciseness. A short animated video cannot contain a complex or branched narrative. Instead, it should communicate one clear idea supported by all visual and audio elements. This approach makes the video more focused and helps avoid unnecessary cognitive overload for the audience.

In the context of educational and advertising videos, the sequential structure of information delivery is also essential: information should unfold progressively from simple concepts to more complex ones, enabling viewers to follow the content effortlessly. This increases the level of comprehension and contributes to better retention of the material [25].

Thus, the storyline and structural organization of a video are fundamental factors that determine the logic of information perception and the degree of the audience's emotional engagement. Their quality directly influences whether viewers are willing to continue watching and how effectively they retain the core message.

2. Character design.

Characters are one of the key visual elements of animated videos, as they are capable of quickly establishing an emotional connection with viewers and facilitating information perception. Research in animation design emphasize that characters function as “carriers” of emotions and meaning, while their stylization directly influences the audience's willingness to engage with the video [22].

One of the main principles of character creation is silhouette readability. The character's shape should be simple and recognizable even in motion (see Fig. 1). This helps viewers quickly identify the character and understand their role within the narrative. Expressive gestures and minimalist facial expressions make it possible to convey emotions without overloading the scene with details, which is particularly important in short videos where every second matters.

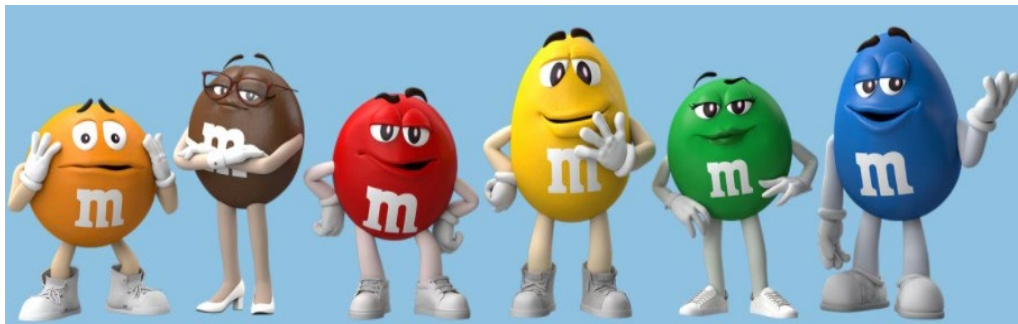


Figure 1 – M&M's characters

The color design of a character is equally important. Psychological studies demonstrate that warm tones are associated with activity and friendliness, whereas cool tones are linked to restraint and analytical thinking [15]. Consequently, color helps reinforce the character's personality and creates an emotional context within the frame.

Another important aspect is the correspondence between the character design and the target audience. Youth-oriented videos require dynamic and contemporary character designs, while educational content more often relies on mentor-like characters intended to simplify complex topics. In advertising videos, characters frequently serve as central focal points around which the composition and narrative are constructed.

Excessive detail may complicate perception. Therefore, many sources recommend the use of simple, stylized character designs that allow viewers to focus on the content and movement rather than on secondary decorative elements [25].

Thus, well-designed characters support the storyline, enhance emotional impact, and help viewers better remember the key ideas conveyed in the video.

3. Color solution.

Color in an animated video affects the viewer more quickly than any other visual element within the frame. It is through that emotional tone establishes the first visual impression but the color palette performs not merely a decorative but also a distinctly functional role. Studies indicate that color is capable of directing attention, enhancing the mood of a scene, and even influencing how easily a person remembers the presented information [15].

Color palettes based on several dominant colors tend to be the most effective, as they help avoid visual clutter (see Fig. 2). The contrast between the background and key objects allows viewers to focus their attention more quickly on the intended elements and makes the image easier to perceive even during rapid viewing [9].

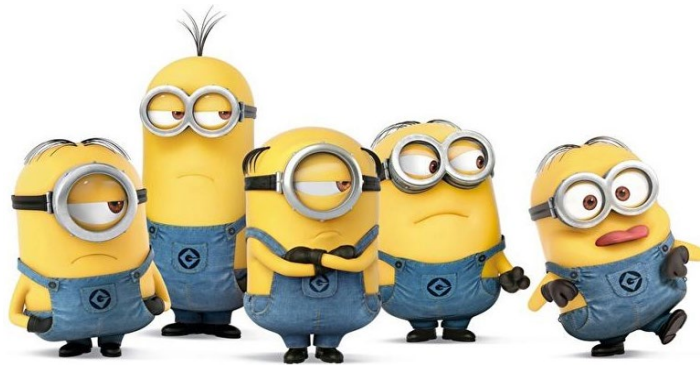


Figure 2 – Characters of the animated film *Despicable Me*

Color within a scene also performs an emotional function. Warm tones create a sense of energy and openness, whereas cool tones are generally associated with calmness or technological sophistication. Pastel shades are particularly effective in educational content, where it is important to avoid visual strain and to ensure that the presentation remains soft and comfortable for viewers.

Special attention should also be paid to color rhythm – the alternation of bright and restrained tones. This technique helps structure information and highlight logical sections without the need for additional graphic accents [14]. In advertising videos, it also contributes to the creation of a recognizable visual style and supports brand identity.

Overall, the color palette in an animated video is not merely an aesthetic component. It influences viewing comfort, the speed of information perception, and the viewer's emotional state, making it an essential component of effective communication.

4. Frame composition.

Composition plays an important role in how viewers perceive a scene and determine which elements attract their attention first. A properly constructed frame helps organize the visual space in such a way that key elements immediately capture attention, while the viewer's gaze naturally follows the logic of the video. Research in visual communication demonstrates that composition influences not only aesthetics but

also the speed of information processing; therefore, in animation it becomes a tool for directing audience attention [9].

One of the fundamental principles of composition is the hierarchy of elements. Each frame should contain a single primary object – a character, an important gesture, infographic, or text element. When several objects compete for attention simultaneously, viewers may struggle to understand the main idea of the scene. For this reason, designers often employ scale, color, contrast, or positioning to emphasize the primary focal point and reduce “visual noise”.

It is also important to maintain a balance between filled areas of the frame and empty space. Clearly organized white space does not make a video appear empty. On the contrary, it helps emphasize meaning, reduce perceptual overload, and create a sense of visual order (see Fig. 3). Frames lacking sufficient space often appear heavy and oversaturated, causing viewers to become fatigued more quickly [25].



Figure 3 – Composition of Foxtrot advertising

Another key element is the use of compositional lines and direction of movement. The human eye naturally follows the direction of a gesture, a character’s gaze, or the vector of animation. Therefore, such lines should guide the viewer toward the main elements of the frame. If character movements or animation effects diverge in different directions, this creates a sense of chaos and disrupts the logic of perception (see Fig. 4).



Figure 4 – Composition of Green Forest advertising

In dynamic animation, the sequence of frames is of particular importance, because the transition between scenes should be smooth in order to avoid abrupt “breaks” in visual logic. When scenes change naturally, viewers are able to maintain focus more easily and retain the content more effectively.

Thus, frame composition is not merely a matter of aesthetics. It determines the logic of eye movement, the pace of perception, and the overall comfort of viewing. A well-constructed frame helps make an animated video clearer, more structured, and more appealing to the target audience.

5. Rhythm and pace of animation.

The rhythm and pace of a video determine how dynamically the viewer perceives the presented information. Even with high-quality graphics and a well-designed narrative, a poorly chosen pace can reduce the effectiveness of the animation. Too rapid delivery overloads attention, while an excessively slow one leads to a loss of audience interest. Research in motion design emphasizes that rhythm specifically helps structure movement and create a natural viewing “flow” [9].

In short videos is particularly important because viewers evaluate the content within the first few seconds. If the scenes change logically and harmoniously from the very beginning, the viewer easily follows the storyline. However, when transitions are too abrupt or uncoordinated with the musical accompaniment or character movements, it creates a sense of chaos and reduces the level of engagement.

A crucial aspect is the synchronization of movement with the musical accompaniment. Smooth transitions, character movements, and the appearance of text blocks must all rhythmically align with audio cues. This approach helps enhance the emotional impact and make the video more cohesive. Cognitive science research demonstrates that the synchronicity of visual and auditory elements enhances focus and accelerates content comprehension [14]. It is also essential to consider the dynamics within a single frame: movements must be logical, and the speed must match the character of the scene. For instance, educational videos often feature a calmer pace, allowing the viewer to internalize the information. Conversely, advertisements utilize rapid cuts and active animation to convey energy and sustain attention throughout the entire video.

Another aspect is the rhythm of graphic elements. When scenes change at relatively equal intervals and visual cues appear exactly where the viewer expects them, the video is perceived more naturally. Conversely, when the rhythm changes constantly without logical justification, it becomes more difficult for viewers to maintain focus and can create a sense of fragmentation.

2.2 Sound impact factors

Sound design is an integral part of an animated video, as it complements the visual layer and significantly shapes emotional perception. Audio elements help maintain the rhythm of the video, emphasize key moments, and create an atmosphere that reinforces the meaning of each scene [14]. For this reason, music, sound effects, and voice-over are considered separate factors influencing viewer engagement and viewing comfort.

1. Musical accompaniment.

Musical accompaniment is one of the elements that viewers may not consciously notice, yet it forms the emotional foundation of the entire animation. Music defines the

character of a scene, the pace of perception, and creates coherence between individual frames. Studies in multimedia design emphasize that a well-chosen soundtrack can significantly enhance the impact of a video and make it more memorable [14].

One of the primary functions of music is emotional regulation. For example, light melodies enhance a sense of comfort, dynamic tracks add energy, while deeper and more atmospheric compositions help create a focused or tense mood. In short advertising videos, music often becomes part of brand identity, as it can evoke associations without requiring additional visual cues.

Equally important, music helps structure the rhythm of the video. When visual changes align with audio accents, the video is perceived as more natural. Conversely, if the music does not correspond to the scene dynamics, a sense of dissonance arises, which distracts attention and may even reduce trust in the content.

In educational videos, music is typically used as a background element – it should not dominate or interfere with the perception of textual information. In this context, it is important to find a balance between emotional expressiveness and neutrality so that the melody supports the overall atmosphere without distracting from the content.

Another aspect is volume and sound quality. Uneven audio levels, abrupt changes, or excessively loud accents can cause discomfort, leading some viewers to stop watching. Therefore, sound balance is as important as the choice of the musical composition itself.

Overall, musical accompaniment is an important psychological tool that helps guide attention, set the mood, and create the desired emotional effect. It enhances visual decisions and makes an animated video more cohesive and expressive for the target audience.

2. Sound effects.

Sound effects complement the visual component of a video and often serve as micro-accents that enhance specific actions, transitions, or character interactions. As a result, scenes appear more dynamic, and changes within the frame become clearer to the viewer. Studies in multimedia technologies indicate that appropriately selected sound effects help create a sense of space, tempo, and dynamics, thereby influencing the overall emotional atmosphere of the video [8].

One of the key functions of sound effects is to emphasize important moments. For example, the sound of an object that appears, a click, a soft impact, or a character's movement serves not only a decorative but also an informative function. Viewers respond more quickly to changes in the frame when they are accompanied by brief but appropriate sound cues. This helps highlight key elements and improves the comprehension of ongoing actions.

Sound effects also contribute to a sense of realism. Even in stylized animation, short audio cues can create a “presence” of objects – the viewer perceives that a character is touching an object, moving through space, or interacting with other elements of the scene. This makes character behavior appear more natural and the overall video more cohesive.

It is important to maintain balance, as an excessive number of effects or overly loud accents can overload the viewer. Some videos lose effectiveness precisely because sound effects distract from the main content or conflict with the musical background. Therefore, literature recommends using effects selectively and aligning them with the overall style of the video [19].

3. Voiceover.

Voice-over is an essential element of sound design, especially in animated videos where the storyline must be clearly communicated or complex material explained. The audio accompaniment helps structure the presentation, underscores key messages, and makes the information more accessible to different audience groups [25].

One of the key characteristics of effective sound design is naturalness. Viewers are more likely to trust a voice that sounds calm, lifelike, and not overloaded with intonation. Excessive emotionality or, conversely, monotony can reduce interest and make the video less persuasive. It is also important for the tone and speaking style correspond to the style of the video: educational content typically uses a more restrained tone, whereas advertising videos frequently utilize a more energetic and emphasized style.

Voice delivery also affects the pace of perception. If the story is not synchronized with the visual changes, it becomes harder for the viewer to follow the video. Articulation and diction are also important. The audio must be clean, without distortion or ambient noise, as poor sound quality can create a sense of unprofessionalism and reduce trust in the video. In advertising and explanatory videos, it is often the voiceover that determines how the viewer perceives the final message [19].

2.3 Content factors.

In addition to visual and audio elements, the content of an animated video plays a crucial role. The extent to which the storyline is well-designed, the information is presented logically, and the message is clearly formulated determines the video's ability to influence the viewer's emotions, engagement, and motivation [24]. Therefore, content-related factors are regarded as a key component of audience engagement and the achievement of communication objectives.

1. Narrative Structure.

The narrative is the foundation of any animated video, as it determines the logic of events, the sequence of scenes, and the manner in which information is presented. A well-constructed narrative allows viewers to easily follow the content and transition naturally from one stage of the video to the next [24].

For short animated videos, it is particularly important that the narrative remains highly concise. An excessive volume of information or redundant scenes creates cognitive overload, causing the viewer to lose focus. Consequently, most effective videos employ a classical structure that consists of an introduction, the main content, and a brief conclusion, which summarizes the key message.

The underlying message of the narrative also plays a vital role. When a video features a clearly formulated concept, it serves as the foundation around which

characters, scenes, and visual transitions are constructed. If the content lacking such a central idea often appears disjointed, and the video itself may seem like a random sequence of frames [2].

Particular attention should be paid to the pacing of events. If the narrative develops too slowly, the viewer loses interest, but if it progresses too quickly, they fail to understand the key points. This is especially critical in advertising videos, where every second carries informational value. In educational content, a slower pace is acceptable, as it facilitates better information retention.

Narrative structure also influences emotional perception. Minor plot twists, humorous elements, or logically constructed dialogues help sustain attention and make the video more engaging. Simple yet expressive stories are often perceived better than complex concepts, as they appeal to the fundamental mechanism of storytelling, to which the majority of the audience responds favorably [3].

2. Key messages.

Key messages are the specific ideas or statements that a video aims to communicate to the audience most clearly. They determine what viewers will remember after watching and what meaning will remain in their perception [26].

One crucial principle is conciseness. If there are too many key messages, the viewer is unable to process or memorize them within the given timeframe. Therefore, it is essential to select one to three key concepts that best reflect the purpose of the video. In promotional videos, this key concept can be a call to action or a brief product advantage, whereas in educational videos, it represents the primary concept or process being explained.

Beyond quantity, the method of presentation is of significant importance. Messages should be formulated in a manner that ensures immediate comprehension upon first viewing. Excessively complex wording or terminology that does not correspond to the audience's level of preparation reduces the effectiveness even of high-quality animation. Simple, clear, and emotionally neutral phrases that require no further explanation tend to be the most effective.

For key messages to be perceived naturally, they must be naturally integrated into the narrative. Successful videos use visual cues, changes in pacing, or short character lines to emphasize key ideas without direct imposition. In many animated videos, key messages are duplicated as on-screen text. This reinforces memory retention and is particularly critical for visual learners.

3. Humorous and emotional elements.

Humor and emotional accents are important content elements that can significantly enhance the impact of an animated video. They help establish a more natural connection with the audience, make the presentation more engaging, and emphasize key points.

Humor is often used to relieve tension and make the video feel more relatable to viewers. Even a brief joke or a playful character movement can create a sense of ease and sustain attention (see Fig. 5). However, it is important that the humor is appropriate and aligns with the overall aesthetic of the video. If it appears forced or does not fit the

topic, it may produce the opposite effect by distracting viewers or reducing the seriousness of the main message.



Figure 5 – visual design of the social advertising campaign "*Dumb ways to die*"

Emotional elements function somewhat differently. They may be subtle, such as changes in color, character facial expressions, or smooth transitions, or more expressive, for example, a clearly articulated emotional message or a dramatic moment. Such techniques help viewers establish a connection with the video rather than perceive it merely as informational material. Even minimal emotional elements create a sense of engagement and generate a deeper interest in the topic.

In promotional animated videos, emotional and humorous elements are often used as tools for building brand loyalty. In educational videos, they help avoid monotony and make the material more dynamic and engaging. In both cases, it is important that emotionality supports the content rather than overshadows it. Various studies emphasize that content evoking any emotional response such as a smile, empathy, or surprise is generally remembered more effectively and more quickly [24]. Animation provides broad opportunities for creating such accents due to the flexibility of movement, facial expressions, and stylized characters.

2.4 Platform factors.

The platform on which an animated video is distributed also influences its effectiveness. Each platform has its own technical limitations, promotion algorithms, and audience behavior characteristics that must be taken into account during video production. Research in media communications indicates that adapting content to a specific platform increases the likelihood of views, enhances audience engagement, and improves memorability metrics [25]. Therefore, the platform should be considered not merely a distribution environment, but also a separate factor influencing the perception of the video.

1. Video duration.

Video duration is one of the key parameters that determines audience engagement. Different platforms have their own “ideal” time frames shaped by the characteristics of user behavior. For example, short videos perform most effectively on TikTok and Instagram Reels [23], whereas on YouTube viewers are generally willing

to spend more time watching content, especially when the video is educational in nature.

In most cases, shorter duration provides an advantage because modern audiences consume content rapidly and are not always willing to devote more than 10-20 seconds to familiarizing themselves with material. However, excessive shortening may also be a disadvantage: if the video does not have sufficient time to develop its main idea, it may appear superficial or incomplete. Therefore, it is important to maintain a balance between concise presentation and sufficient informativeness.

Promotional videos most commonly use a duration of 10-15 seconds, as this is generally sufficient to communicate the key message. Educational content may be longer, but the narrative should develop consistently and without unnecessary pauses in order to maintain viewer attention. Research indicates that video duration should correspond both to the purpose of the video and to audience expectations on a particular platform [19].

2. Social Media Platforms and Format Adaptation.

Social media platforms have their own specific approaches to content presentation, which is why adapting the video format to a particular platform plays an important role. Each platform imposes different requirements regarding aspect ratio, frame dimensions, and methods of audience interaction. Visual materials that perform effectively on YouTube may be less effective on Instagram or TikTok, where content is primarily consumed on mobile devices and at a much faster pace.

Social media platforms also require a more dynamic tempo. Viewers are accustomed to rapidly switching between videos; therefore, it is important to ensure that key accents appear within the first few seconds. Research demonstrates that a strong opening and a visually striking first frame significantly increase audience retention [25]. Consequently, both the storyline and the composition should be adapted to the behavioral patterns of the audience on a particular platform.

Another important aspect is the use of text overlays. In mobile-oriented social networks, they are especially significant because many users watch videos without sound. Clear, concise, and properly positioned text blocks can compensate for the absence of voiceover narration and help viewers understand the key message more quickly.

It is also important to consider the algorithms of social media platforms. These algorithms prioritize videos that quickly generate reactions and views. Therefore, the role of format adaptation extends beyond technical parameters to include the ability of a video to immediately capture audience attention. If a video appears organic within the recommendation environment, its chances of being widely distributed increase significantly.

3. Features of Platform Display and Algorithms.

The algorithms of different platforms determine how and to whom an animated video will be shown. They primarily rely on user behavior, including whether viewers remain engaged with the video, watch it to completion, and interact with it. As a result,

the first few seconds of a video are of particular importance, since they influence the user's decision either to continue watching or to scroll further.

Another important factor is the clarity of the video under conditions of rapid content consumption. Algorithms tend to promote videos in which the composition is clear and the key elements remain easily distinguishable even at small display sizes. This is especially relevant for mobile platforms, where videos are consumed quickly and without close attention to minor details.

Platforms also take into account the overall pacing of the video because videos with balanced dynamics and logical transitions generally receive more views. If changes within the video appear natural and do not create discomfort for the viewer, the audience is more likely to continue watching, which positively affects further promotion by the platform's algorithms.

3 Research methods

In the field of multimedia technologies, where the objects of study include emotional reactions, perceptual characteristics, and viewers' subjective impressions, the combination of quantitative and qualitative methods plays a particularly important role. This is explained by the fact that animated content is often evaluated simultaneously as a visual message, an emotional product, and a technically constructed structure.

Quantitative methods make it possible to determine which video characteristics are mentioned most frequently by respondents, what types of dynamics they identify, and which stylistic decisions are perceived as attractive or, conversely, ineffective.

Qualitative methods provide an opportunity to examine an animated video not merely as a set of elements, but as a complete communication product in which every compositional, stylistic, narrative, or auditory decision is important.

In the field of animation, qualitative methods help reveal the "internal logic" of a video, namely the factors that make it cohesive, expressive, and professional. This is particularly important when comparing several videos or evaluating created content, since certain professional shortcomings may not be noticeable to ordinary viewers but can significantly influence the final result.

Within the scope of this study, a combination of two approaches was selected: a quantitative method in the form of a questionnaire survey and a qualitative method in the form of expert evaluation. This choice makes it possible to assess animated videos simultaneously from the perspectives of viewers and specialists, thereby ensuring the objectivity of the experiment.

3.1 Questionnaire Survey Method.

The essence of a questionnaire survey lies in recording respondents' answers to a standardized set of questions presented in the form of a questionnaire. This method is characterized by a high level of structure, reproducibility, and the ability to reach a large number of participants within a short period of time. A questionnaire enables the collection of both quantitative and qualitative data, making it an effective tool for a wide range of scientific studies.

The advantages of questionnaire surveys that make them one of the most effective research tools include:

- the ability to quickly reach a large number of respondents and ensure sample representativeness;
- standardization of questions, which ensures comparability of responses and enables quantitative analysis;
- anonymity that promotes greater honesty and reduces social desirability bias;
- cost-effectiveness, as surveys do not require significant financial or material resources;
- convenience for respondents, who can complete the questionnaire at any time and under comfortable conditions;
- ability to combine different types of questions (closed-ended, open-ended, and scale-based) to obtain comprehensive information;
- ease of use of online platforms that automatically organize, process, and visualize results.

Questionnaire surveys are a universal and methodologically flexible approach to data collection that combines structure, accessibility, and high efficiency. They allow researchers to obtain both objective quantitative data and subjective opinions of respondents, making this method an essential component of modern empirical research.

3.2 Analysis of Animated Video Analogues.

The analysis of existing analogues plays an important role in studying the impact of animated videos, as it enables the identification of effective information presentation techniques, the strengths and weaknesses of contemporary video content, and the specific patterns of interaction between videos and viewers. For this purpose, three animated videos were selected, each representing different approaches to the creation of educational and promotional multimedia content.

The first analogue is a promotional video of the online English language school Green Forest (Fig. 6). The second analogue is an E-Learning App promotional video demonstrating an educational application for self-directed learning (Fig. 7). The third analogue is a promotional video “Stop postponing – join EnglishDom!”, which combines character animation with an emotional and dynamic presentation (Fig. 8).



Figure 6 – Green Forest promotional video

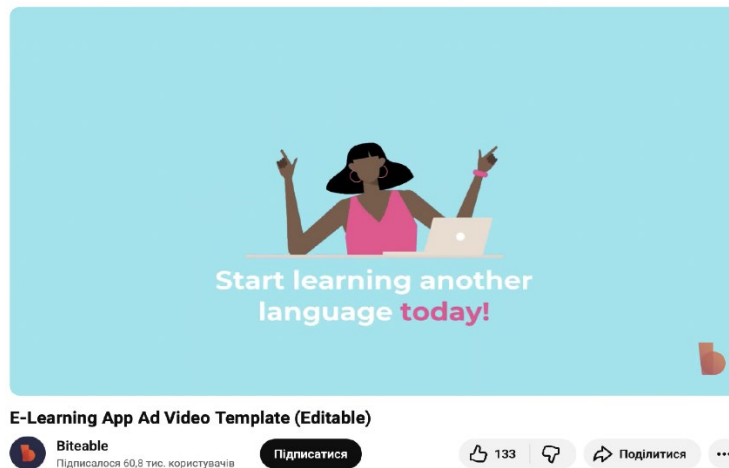


Figure 7 – E-Learning App promotional video

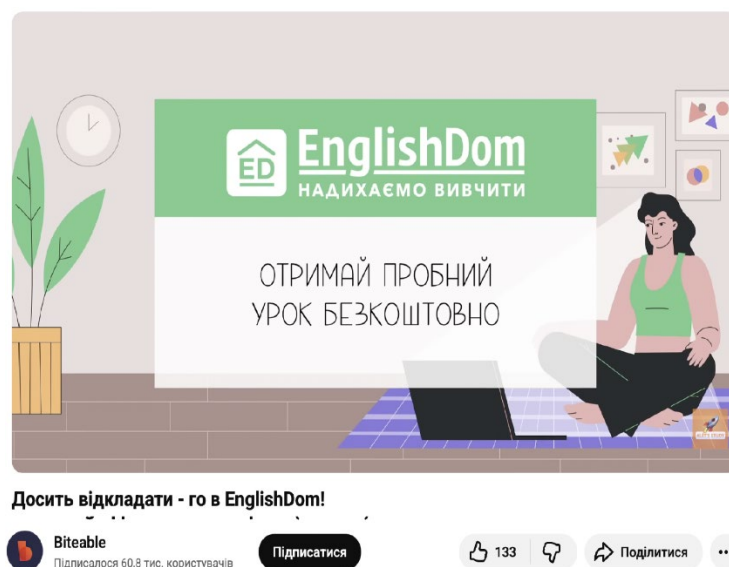


Figure 8 – EnglishDom promotional video

3.3 Target audience of animated videos.

The target audience of animated videos is defined by the purpose of their creation and their field of application. The primary focus is on a young audience that actively consumes digital content and engages with multimedia materials through social media, educational resources, and online platforms. This group includes high school students, university applicants, and young professionals interested in creative and technical fields, particularly design and visual communication.

This audience is characterized by a dynamic style of information consumption and high sensitivity to visual and auditory stimuli. For this reason, emotionally expressive animated videos with a well-considered color palette, composition, and pacing are able to quickly attract attention and create a positive impression of the message [9]. Such viewers expect short, informative, and visually appealing videos that correspond to contemporary aesthetic trends.

A separate segment of the audience consists of applicants and potential students of higher education programs. For them, animated videos serve not only an informative

but also a motivational function, as they help generate interest in a field of study and demonstrate the attractiveness of the educational environment [13].

An understanding of the characteristics and needs of the target audience makes it possible to more precisely determine the visual and structural techniques that will be most effective in the process of creating animated videos and ensure efficient communication with viewers.

3.4 Developed Design of Questionnaire.

For the practical part of the research, an online questionnaire was developed using the Google Forms. Its aim was to examine the perception features of animated promotional videos and to identify the criteria that influence the target audience's level of interest. The questionnaire consisted of several logically structured sections, which made it possible to systematically collect information about participants, their experience of interacting with animated content, and their in-depth evaluation of specific video materials.

Each block of the questionnaire served a distinct research function (Fig. 6).

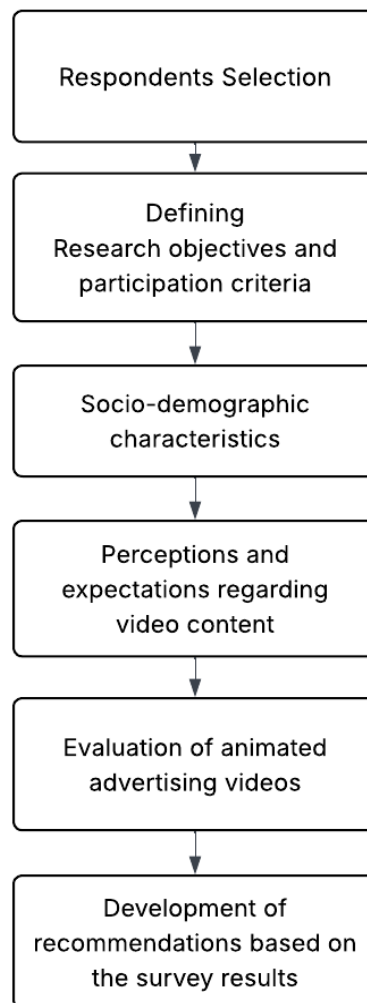


Figure 6 – Algorithm of the empirical survey

The first block had an introductory character and included an opening message addressed to respondents. It briefly outlined the objectives of the study and specified

the conditions of participation, including voluntariness and confidentiality. This introduction performed an important motivational and organizational function, encouraging informed participation from respondents.

Afterwards, participants proceeded to the socio-demographic section, which included questions about age, field of activity, and interest in educational courses. This block made it possible to establish a preliminary profile of participants and to determine whether their social and professional characteristics influenced how they evaluated animated advertising. This, in turn, allowed for consideration of media consumption contexts across different groups and the analysis of differences in their preferences.

The third section of the questionnaire was aimed at identifying respondents' general perceptions and expectations regarding animated promotional videos. In this section, respondents evaluated the frequency with which they watch animated content, indicated the optimal duration of a promotional video, and identified key elements that shape a positive or negative impression of a video. Considerable attention was given to parameters such as the importance of humor, simplicity of presentation, clarity of structure, as well as the visual and content coherence of the video. The questions in this section made it possible to determine viewers' basic preferences and to assess which components of video advertising are most significant from the audience's perspective.

The most detailed was the fourth section of the questionnaire, which involved evaluating three selected animated analogue videos used as comparative examples. For the analysis, the promotional videos of Green Forest, E-Learning App, and EnglishDom were selected. These videos differ in structure, style, emotional intensity, and information delivery. In this section, respondents evaluated each video according to specific criteria: content and main message, visual style, animation quality, use of humor, emotional impact, musical accompaniment, voiceover narration, speed and rhythm of information delivery, presence of infographics, clarity of characters, and use of on-screen text and subtitles. This multidimensional assessment made it possible to determine which video elements are most effective and which require improvement.

The fourth section also included scaled questions, which allowed for the quantitative measurement of the level of emotional impact of the videos, the attractiveness of the visual style, and the ability of the videos to maintain viewer attention. This is important because the emotional tone and dynamics of video advertising directly influence the user's intention to take a target action, ranging from visiting a website to registering or purchasing a product.

Here are the examples of questions included in the questionnaire:

- “What duration do you consider optimal for a promotional video?”;
- “Which elements make an animated video clearer and more convincing?”;
- “How important is humor or a light tone in a promotional video for you?”;
- “Which characteristics, in your opinion, make a video memorable?”;
- “How long do you usually remember an advertising video you have watched?”;
- “Have you ever become genuinely interested in a product after watching an animated advertisement (e.g., visited a website, subscribed, or signed up)?”;

- “How much did you like the video?”;
- “Which video best conveyed the advertising message?”.

Based on the results of the empirical survey, a set of recommendations was developed to improve the effectiveness of animated promotional videos. The recommendations focus on enhancing audience engagement, increasing emotional impact and content memorability, as well as improving communication with the target audience through the use of effective visual and narrative elements.

3.5 Survey results.

The questionnaire made it possible to collect quantitative data on how representatives of different age and professional groups perceive animated promotional videos. The obtained responses helped identify general trends in audience preferences, as well as determine specific video elements that influence the level of interest and memorability. The survey was conducted online using the Google Forms, which ensured convenient access for respondents and allowed for a broad sample to be reached. A total of 78 respondents participated in the survey.

In the first section of the survey, socio-demographic data were collected, including age, field of activity, level of interest in educational courses, and experience of interacting with animated content. The majority of participants were aged between 18 and 35 years (Fig. 9).

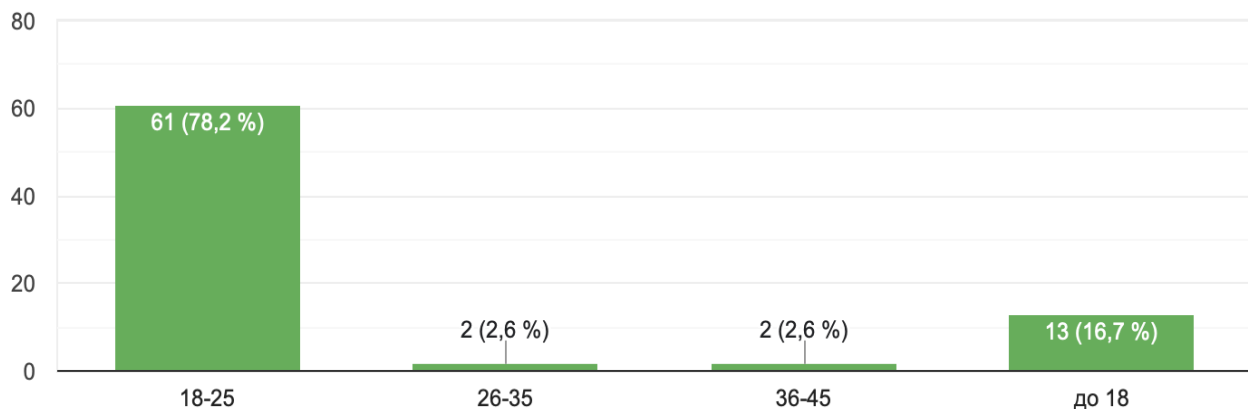


Figure 9 – Results by age category

In terms of professional background, the majority of responses were received from higher education students and young professionals in creative fields, which corresponds to the profile of the target audience for which promotional animated videos are typically created (Fig. 10). This made it possible to obtain realistic evaluations of the effectiveness of different video styles.

One of the key objectives was to determine which video format respondents consider the most convenient. The majority of participants indicated that the optimal duration of an animated promotional video is up to 15 seconds (61,5%), 15-30 seconds (33,3%), and 30-60 seconds (5,2%). This confirms the ongoing trend toward shorter digital advertising formats, which enable effective user attention retention in conditions of information overload.

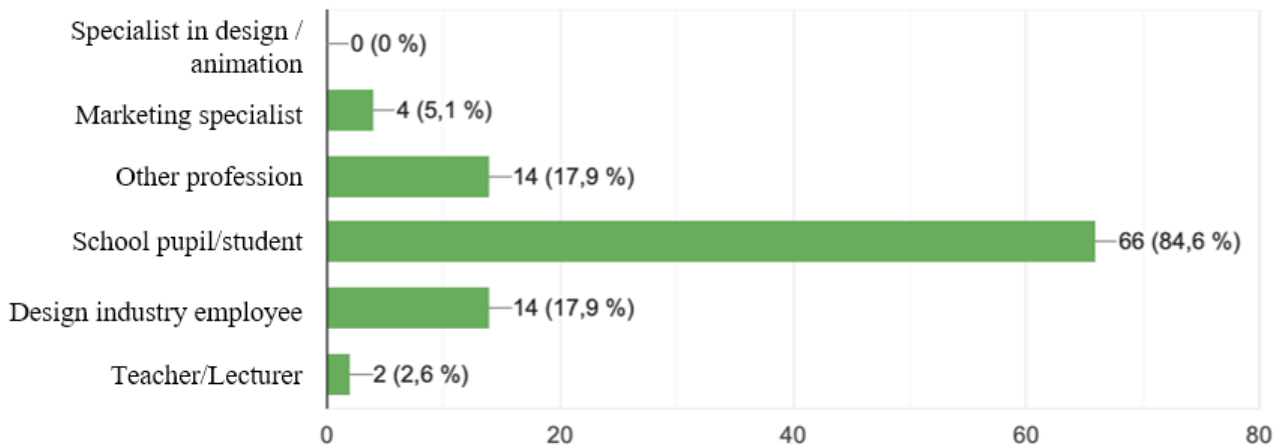


Figure 10 – Occupation

Respondents also identified the main factors that make a video engaging and easy to understand (Fig. 11).

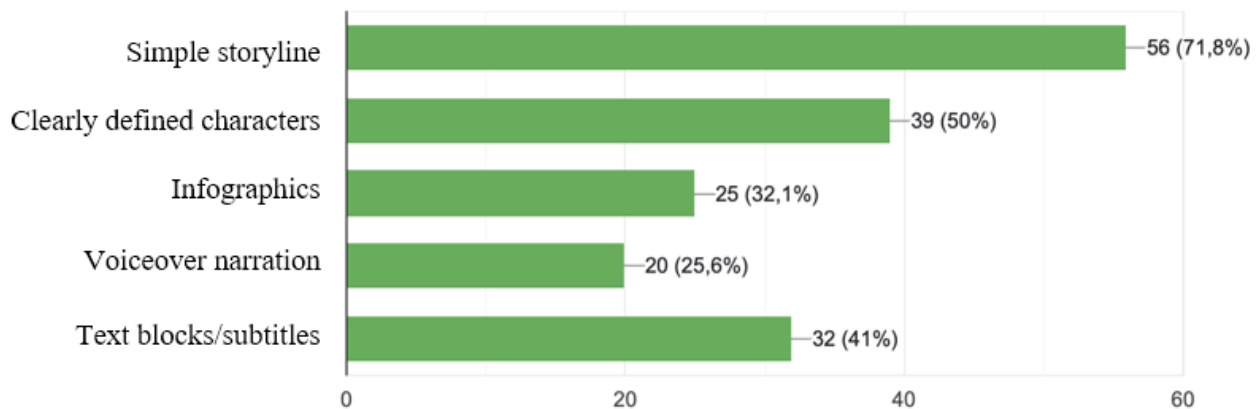


Figure 11 – Factors that make a video clear and persuasive

The most frequently mentioned factors were:

- a clear narrative structure;
- expressive characters;
- a harmonious color palette;
- well-chosen music;
- simplicity and humor in presentation.

These preferences demonstrate that viewers value structure, conciseness, and visual clarity. The role of humor and lightness was particularly notable – almost half of the respondents indicated that emotional or humorous elements help them remember advertisements better:

- very important – 71,8 %;
- moderately important – 21,8 %
- not important – 6,4 %.

A separate section of the questionnaire was devoted to identifying characteristics that make a video memorable (Fig. 12). This aspect is crucial for animated advertising videos, as a short visual story should not only attract attention but also leave an emotional impression that encourages further viewer action. Respondents were

allowed to select multiple answers, as memorability is shaped by a combination of different factors.

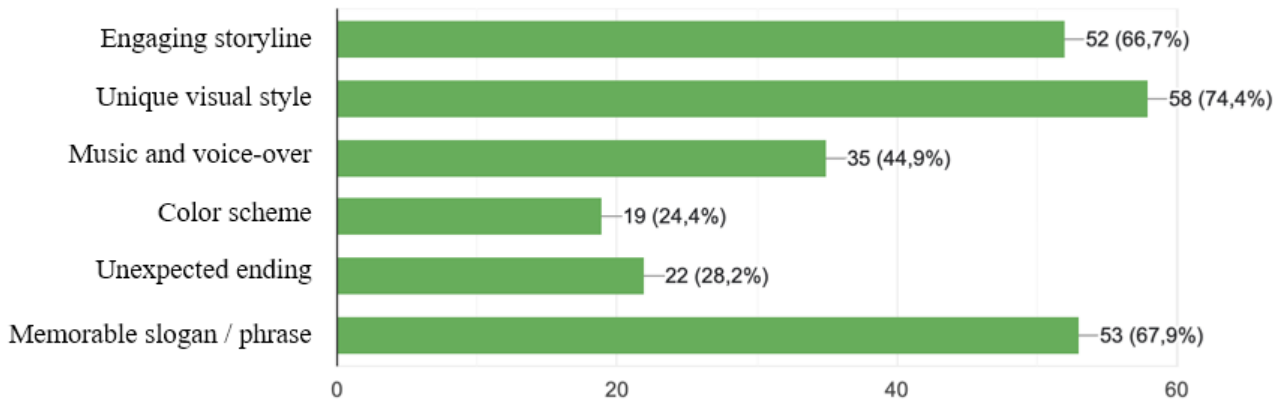


Figure 12 – Characteristics that make a video memorable

Participants most often highlighted a unique visual style (74,4 %), an interesting storyline (66,7 %), and a memorable slogan or phrase (67,9 %). Music and voice-over were considered slightly less important, although still significant (44,9 %). A smaller proportion of respondents selected color scheme (24,4 %) or an unexpected ending (28,2 %).

The next question concerned how long respondents typically remember advertising videos. The results showed that the largest proportion of participants maintain an impression of the video for several hours (30,8 %) or even several days (23,1 %). 12,8 % of respondents can maintain video impression for one day, and 25,6 % can do this for a few minutes. This confirms that short animated promotional videos can have a relatively long-lasting impact if they successfully generate interest or an emotional response. Only a small percentage of respondents indicated that they remember a video for more than a week (7,7%) – such cases are typically associated with highly distinctive and unconventional videos.

The questionnaire also included a section on elements that respondents consider undesirable (Fig. 13).

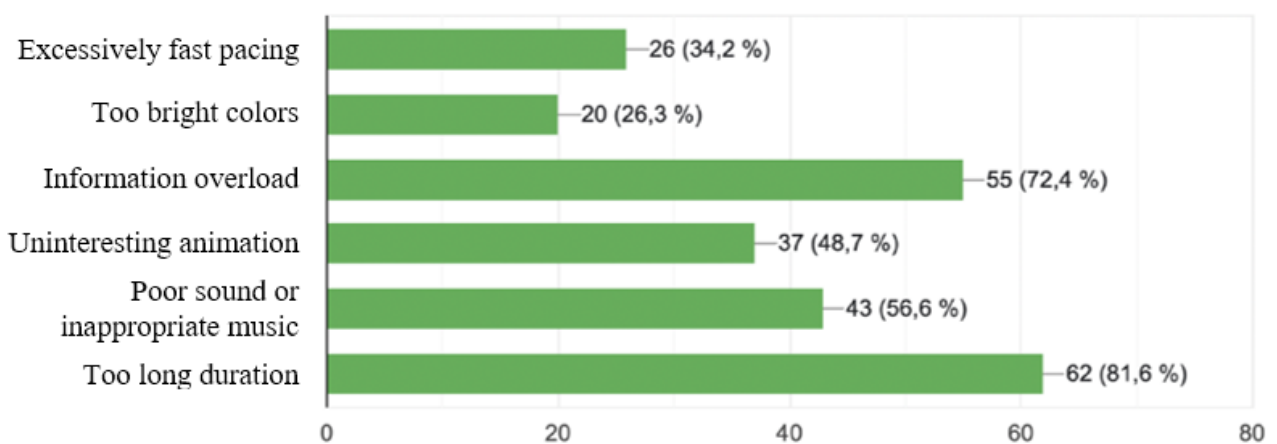


Figure 13 – Elements that may interfere with viewing

The most frequently mentioned responses included: excessively fast pacing that makes it difficult to process information; visual overload, such as excessive detail,

small text, or too much graphics; poor sound quality or inappropriate music; overly bright colors; and excessively long duration.

Respondents first evaluated the Green Forest promotional video. The overall reaction was moderately positive: the average score was 3,74 points, indicating some level of interest but without a strong emotional impact. The majority of responses were 4 points (38,5%), while the maximum score of 5 points was given by 26,9% of participants. This suggests that the video is generally liked rather than disliked. However, it does not evoke strong enthusiasm or a vivid emotional response (Fig. 14).

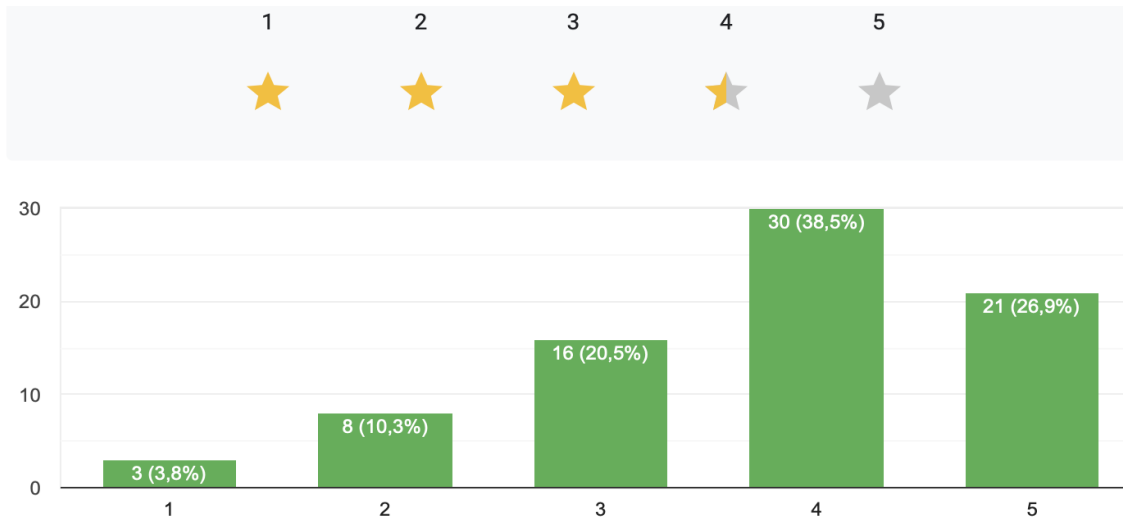


Figure 14 – Evaluation of the overall impression of the Green Forest video

Respondents also separately evaluated how clearly the video explains information about the course. In this case, the average score was lower – 3,18 points (Fig. 15). This may indicate that despite its pleasant visual style and high-quality presentation, the video does not convey the main idea of the course sufficiently clearly.

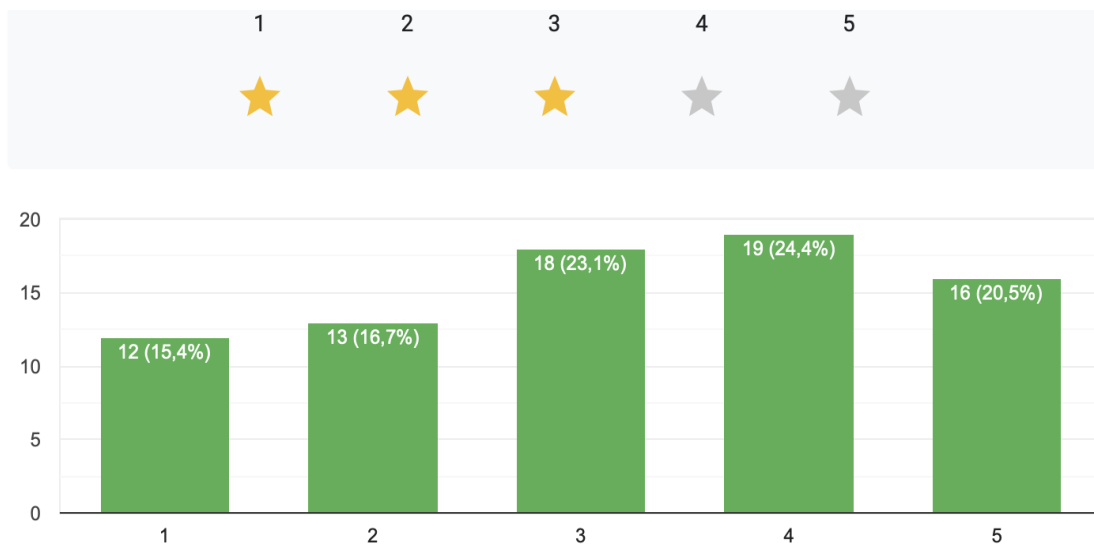


Figure 15 – How clearly the video explains the course content

Interestingly, the responses to the question “Whether the video encouraged you to learn more about the course” were rather critical. Only 20,8% of respondents answered “Yes”, while 32,5% explicitly stated that the video did not stimulate further

interest. The largest proportion (46,8%) selected “partially”, indicating a certain level of interest, but not strong enough to motivate action.

The second video evaluated by respondents was the E-Learning App Video. The overall ratings of this video were lower than those of Green Forest. The average score was 2,51 points, indicating that it was perceived as mediocre and relatively unremarkable (Fig. 16).

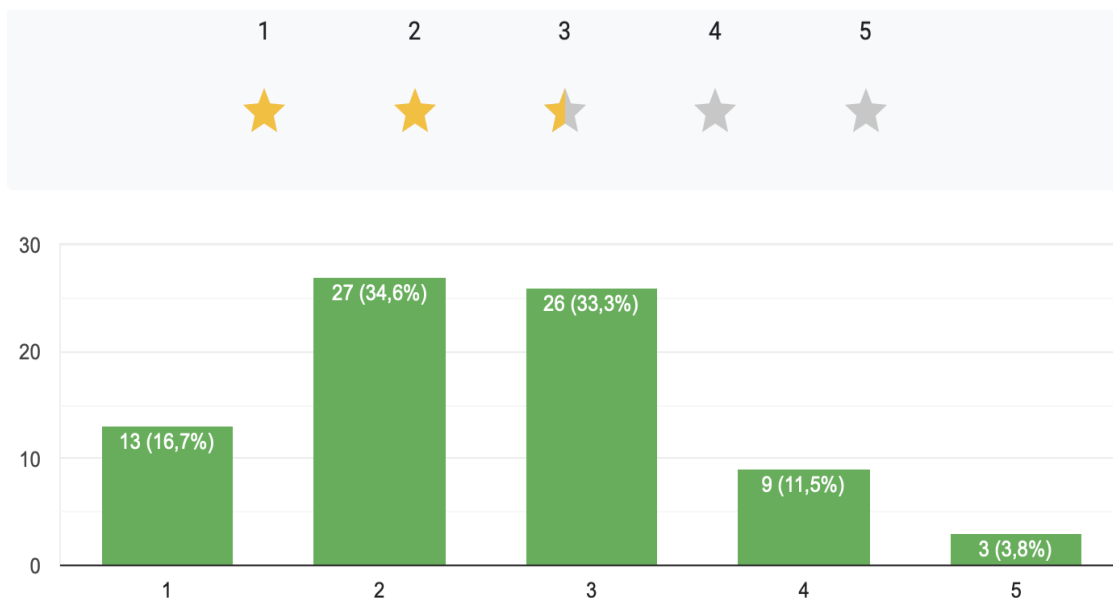


Figure 16 – Evaluation of the overall impression of the E-Learning App Video

Slightly higher results were obtained regarding the clarity of information presentation. The average score here was 3,42 points, with respondents more frequently selecting ratings of 3 or 4 (Fig. 17).



Figure 17 – How clearly the video explains the course information

This suggests that, from an informational standpoint, the content of the video is presented in a relatively logical and understandable way; however, it lacks the emotional component necessary for a strong advertising impact.

The most revealing were the responses to the question regarding viewer motivation. The majority of respondents (64,9%) stated that the video did not encourage them to learn more about the course. A partial interest was reported by 23,4%, while only 11,7% of participants expressed a positive reaction. This indicates that, although the video is structured, it does not have sufficient persuasive power to motivate potential higher education applicants to take action.

The third analyzed video was the EnglishDom promotional video, which is characterized by more dynamic animation, a clear structure, and a strongly expressed educational message. According to the survey results, the perception of this video was noticeably more positive compared to the second video, but slightly more restrained than the reaction to the first one. The average score of 3,58 indicates an overall positive impression. Particularly notable is the group of respondents who gave ratings of 4 (29,5%) and 5 (20,5%), demonstrating a strong emotional response to the video’s style and dynamics (Fig. 18).



Figure 18 – Evaluation of the overall impression of the EnglishDom video

Clarity of content became the strongest indicator for the EnglishDom video, with an average score of 4,09. More than half of the participants (51,3%) stated that the video partially generated interest, while 26,3% indicated that it fully engaged them. This was the highest result among all three videos.

Summarizing the respondents’ evaluations, a clear difference in the perception of each of the three videos can be observed. In response to the question “Which video best conveyed the meaning of the advertisement?”, the majority of respondents selected Video 3, which received 53,9% of the votes. It was considered the most informative and the clearest in explaining the essence of the course. Videos 1 and 2 received significantly smaller shares – 22,4% and 23,7%, respectively.

A similar trend can be observed regarding the overall effectiveness of the videos. According to the responses to the question “Which video is the most effective for advertising courses?”, Video 3 again ranked first with 45,5% of responses. Video 1 also demonstrated a relatively strong result with 40,3%, although it still lagged behind

the third video in terms of impact. Survey participants considered Video 2 the least effective, as it received only 14,3% of the responses.

3.6 Justification of the Criteria for Evaluating Animated Videos.

Based on the analysis of the literature, the reviewed video analogues, and the results of the questionnaire survey, a clear set of criteria was established that most significantly influence the perception and effectiveness of animated promotional videos. These criteria will subsequently be used by experts to evaluate the videos.

The following criteria were proposed for the evaluation of animated promotional videos:

- clarity of the main message (the extent to which the video communicates its core idea clearly and whether viewers can easily understand what it is about);
- logical structure and coherence of presentation (the degree of consistency, coherence, and organization of information, including how naturally scenes and content blocks transition into one another);
- visual attractiveness (the overall impression produced by the video’s stylistic design);
- quality of animation (smoothness of movement, correctness of transformations, technical execution of scenes, and attention to minor details);
- use of color (the correspondence of the color palette to the emotional tone of the video);
- sound design and voiceover narration (the appropriateness of music, emotional expressiveness, correspondence to the genre and pace of the video, clarity of diction, voice timbre, intonation, and the overall suitability of the voice to the advertising content);
- pacing and dynamics of presentation (the comfort of scene transition speed, optimal scene duration, and balance between calm and dynamic sequences);
- emotional impact (the ability of the video to evoke interest, trust, or motivation to learn more about the course);
- memorability (the presence of recognizable elements that remain in viewers’ memory after watching the video);
- informational richness (whether the video provides sufficient useful and specific information without being overloaded with unnecessary details).

4 Development of an animated video

The promotional animated video for design courses was created based on the results of the questionnaire survey, in which respondents identified the key elements that influence their attention and emotional perception of advertising videos. The obtained responses made it possible to form a clear understanding of what an effective promotional video should be like.

The survey results became the basis for the development of the storyboard – a sequence of scenes that determines the logic of the video, the placement of key accents, and the order of visual transitions [11, 18]. The storyboard helped structure the

material, visualize the script, and ensure a consistent progression of information delivery (Fig. 19).

After the storyboard had been developed, work began on the final visual style. The animation was created in a contemporary flat design style. The color palette combines calm background tones with contrasting accent colors, which helps highlight key elements without overloading the composition. The use of contrast corresponds to the psychological characteristics of color perception and helps viewers focus their attention more easily [15].

The typography was selected to ensure maximum readability. Text blocks are concise and placed within spacious compositional areas, allowing viewers to comfortably perceive key messages.



Figure 19 – Storyboard

The storyline of the video is based on the “problem-solution” model. The introductory part presents viewers with a typical situation or need, while the final scenes focus on delivering the main message and include a brief conclusion together with a call to action. Such a structure allows information to be communicated consistently and clearly even within a short duration.

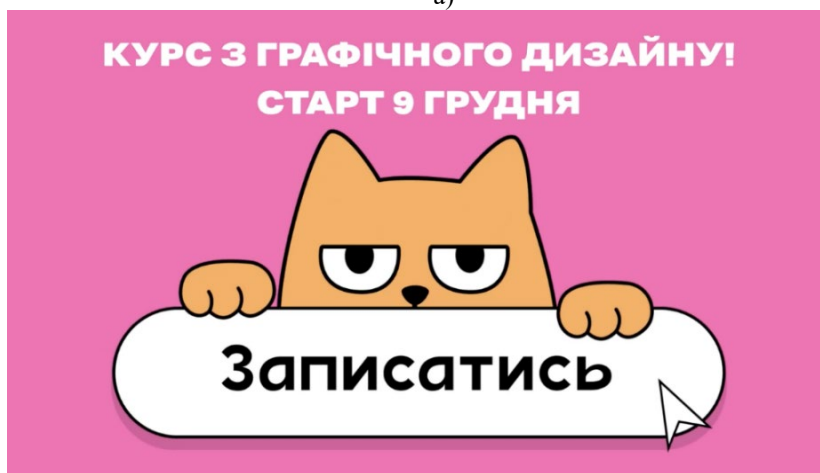
To strengthen individual accents, the video uses simple visual metaphors, including enlargement of elements, rhythmic appearance of text synchronized with the music, and color highlighting of objects. These techniques help make the information accessible and emotionally understandable without overloading the visual composition.

The pacing and dynamics of the video were adjusted according to the audience preferences identified in the questionnaire survey. Respondents noted that excessively rapid presentation complicates perception, while overly slow pacing reduces interest. For this reason, the video employs smooth transitions, a stable rhythm, and carefully designed pauses that allow viewers to comfortably process the content.

Cat that is the single animated character plays a special role in the video. Its presence was a deliberate choice, as some respondents indicated during the survey that they appreciated small emotional or “lively” elements in videos that create a friendly atmosphere (Fig. 20).



a)



b)

Figure 20 – Examples of frames from the developed video:

a) Opening frame, b) Call-to-action frame

The sound design was selected to create a light and unobtrusive background that supports the overall style of the video. Several sound effects were also used in the video:

- sound of mouse click – to indicate the selection of important options;
- notification sound – as an acoustic marker signaling the appearance of new information;
- light “pop” effects are accompanying the appearance of graphic elements.

The duration of the video is 22 seconds, which fully corresponds to the results of the questionnaire survey. The majority of respondents indicated that the optimal length of an educational-promotional animated video is between 15 and 30 seconds, as this format is most effective in maintaining audience attention while allowing information to be presented concisely and in a structured manner.

5 Conducting expert evaluation

In order to objectively evaluate the created animated video and compare it with other videos of a similar type, an expert evaluation was conducted. Four videos were included in the analysis: Green Forest, E-Learning App Ad Video, EnglishDom, and the developed animated video for design courses.

This approach made it possible not only to identify the strengths and weaknesses of each video individually, but also to determine the factors that allow the developed video to compete with existing content.

The expert group consisted of eight specialists working in the fields of design, motion graphics, advertising, and multimedia content production. These experts possess practical experience in visual communication and a strong understanding of the criteria used to evaluate the quality of animated advertising. Each expert worked independently and had no access to the evaluations of others, which prevented mutual influence and ensured the independence of the results.

To evaluate all four videos, a set of criteria was used that had been formed on the basis of literature analysis and the results of the questionnaire survey.

All evaluations were recorded using a 10-point scale and then entered into a summary table. The scores of each expert were documented separately for each of the four videos, which made it possible to subsequently calculate average values and obtain an overall picture of the results.

As part of the preparatory stage, all eight experts were asked not only to review the list of criteria but also to determine the importance of each criterion. For this purpose, each expert assigned a score using a 10-point scale, which made it possible to obtain an initial representation of their professional priorities.

After the ranking stage, the relative weight of each criterion was calculated. This was necessary to ensure that the final analysis considered not only the average score but also the degree of agreement among experts. For this purpose, a formula was used in which the total score of a criterion was correlated with the overall sum of standard deviations:

$$W = \frac{\sum x_i}{\sum \sigma_i}, \quad (1)$$

where x_i – row sum of scores;
 σ_i – standard deviation.

To verify the consistency of expert evaluations, the coefficient of variation was calculated for each criterion. The coefficient of variation (V) makes it possible to assess the degree of dispersion of evaluations relative to their mean value and to determine whether expert opinions are stable or excessively divergent. The formula for calculating the coefficient of variation is as follows:

$$V = \frac{\sigma}{X_e}, \quad (2)$$

where σ – standard deviation;
 X_e – average value according to all experts.

If $V \leq 0,2$ ($\leq 20\%$), the expert evaluations are considered consistent.

If $V > 0,2$, the level of disagreement is considered excessively high, and the expert evaluation should preferably be repeated.

After calculating the coefficient of variation for each criterion, it was established that all values did not exceed the acceptable threshold of 0.2, indicating a sufficient level of agreement among the experts. This means that the obtained evaluations are reliable and may be used for further calculations of the weighting coefficients of the criteria.

For comparison, four animated videos were selected and evaluated by experts according to each criterion using a scale from 1 to 4.

Criterion 1 – Clarity of the Main Message.

Question for experts: How clearly does each video formulate its key idea? Can the viewer quickly and without additional prompts identify the main message of the video?

The obtained concordance coefficient $W = 0.79$ indicates a high level of agreement among experts regarding Criterion 1.

Criterion 2 – Logical Structure and Coherence of Presentation.

Question for experts: How consistent, coherent, and logically structured is the presentation of material in each promotional video?

The obtained concordance coefficient $W = 0.86$ indicates a very high level of agreement among expert evaluations.

Criterion 3 – Visual Attractiveness.

Question for experts: How do you evaluate the overall visual appearance of the promotional video? How harmoniously are the graphic elements, style, composition, and overall aesthetics combined? Which video, in your opinion, appears the most visually attractive and best corresponds to the advertising theme?

The obtained concordance coefficient $W = 0.88$ indicates a very high level of agreement among experts regarding the visual attractiveness of the videos.

Criterion 4 – Animation Quality.

Question for experts: How do you evaluate the quality of animation in each video? Are the movements smooth and natural? How technically accurate are the transitions, transformations, and minor details?

The obtained concordance coefficient $W = 0.86$ indicates a very high level of agreement among experts. This means that the opinions of the experts regarding animation quality are highly consistent, and the evaluation is stable and reliable.

Criterion 5 – Use of Color.

Question for experts: How do you evaluate the use of color in each video? Does the selected color palette correspond to the emotional tone of the advertisement? How successfully are the colors combined, and do they avoid causing visual discomfort? Which video, in your opinion, uses color most effectively as a tool for reinforcing the advertising message?

The obtained concordance coefficient $W = 0.87$ indicates a very high level of agreement among experts. This demonstrates that expert opinions regarding the use of color are highly consistent, and the evaluations are stable and reliable.

Criterion 6 – Sound Design and Voice-Over Narration.

Question for experts: How do you evaluate the quality of the sound design in each promotional video? How appropriately was the music selected, and how

harmoniously does it support the visual sequence and mood of the storyline? Is the voiceover expressive, clear, and appropriate to the style of the video? Which of the videos demonstrates the highest level of audio design?

The obtained concordance coefficient $W = 0.91$ indicates a very high level of agreement among expert evaluations. This means that the specialists' opinions regarding the quality of sound design are almost identical, and the criterion can be used for the further substantiated selection of the most effective promotional video.

Criterion 7 – Pacing and Dynamics of Presentation.

Question for experts: How do you evaluate the speed of scene transitions, the rhythm of information delivery, and the overall dynamics of each promotional video? How comfortable is the pacing, and is it too slow or excessively intense? Which video, in your opinion, demonstrates the most optimal balance between activity and smoothness of presentation?

The obtained value $W = 0.78$ indicates a high level of agreement among experts regarding pacing and dynamics of presentation. This means that experts demonstrate similar views concerning this criterion, and the evaluation results are reliable and stable.

Criterion 8 – Emotional Impact.

Question for experts: How effectively does the promotional video evoke an emotional response? Is it capable of generating interest and creating a sense of trust, motivation, or inspiration? Which of the presented videos, in your opinion, leaves the strongest emotional impression?

The obtained value $W = 0.66$ indicates a sufficiently high level of agreement among experts. Although the evaluations are not perfectly identical, the level of agreement is sufficient for the results to be considered reliable and suitable for further conclusions.

Criterion 9 – Memorability.

Question for experts: The experts were asked to evaluate how easily each promotional video is remembered after viewing. The evaluation concerned the presence of recognizable visual and audio elements that remain in memory.

The obtained value $W = 0.73$ indicates a high level of agreement among experts. This means that their opinions regarding the memorability of the videos are relatively similar, and the evaluation results are reliable.

Criterion 10 – Informational Richness.

Question for experts: How do you evaluate the sufficiency, relevance, and balance of information in the promotional video? Does it contain all the necessary information, and does the informational content correspond to the purpose of the video? Which video, in your opinion, communicates key information most effectively without overloading the viewer?

The obtained value $W = 0.68$ indicates a high level of agreement among experts.

Based on the evaluations according to the ten criteria and taking into account their weighting coefficients, a generalized ranking of the four promotional videos was calculated.

As a result, the developed animated video demonstrated the best performance, receiving a total rating of 28.93, which secured first place in the overall ranking. The high result was determined by strong performance in the criteria of emotional impact, logical coherence of presentation, use of color, and overall visual attractiveness. The video consistently received high evaluations from experts across most parameters, indicating its comprehensive quality.

The Green Forest video ranked second with a total score of 20.19. Its strengths included clarity of the main message, expressive sound design, and effective pacing. However, compared to the leading video, it lacked a certain degree of emotional depth and richness of visual presentation.

Third place was taken by the EnglishDom video, which received 17.56 points. The video is characterized by a well-designed structure, appropriate pacing, and confident use of color; however, it was inferior to the competing videos in terms of informational richness.

The lowest total score among the four videos was obtained by the E-Learning App Ad Video, which received 13.32 points and ranked fourth overall. The main shortcomings of this video were insufficient clarity of the main message, low memorability, and weak emotional impact. Nevertheless, in some criteria, such as the use of color and certain aspects of visual style, the video demonstrated average performance.

The obtained results confirm that the developed animated video is the most balanced and effective among all the analyzed videos. It best meets audience expectations, demonstrating a high level of technical implementation, logical structure, emotional impact, and visual communication. Although the other videos also possess certain strengths, they do not achieve such a comprehensive combination of quality characteristics.

The created animated video, developed in accordance with the recommendations proposed in this study, demonstrated greater clarity of the main message, stronger audience engagement, and a more significant emotional impact. Experts noted that the consistency of visual, technical, and audio elements contributed to clearer information perception, while the survey results indicated increased audience interest and more positive behavioral responses. Thus, the application of the proposed recommendations genuinely enhances the effectiveness of animated content and improves communication outcomes.

Research results

6 Recommendations for improving the effectiveness of animated videos

The obtained results of the expert evaluation and the survey of the target audience made it possible to formulate comprehensive recommendations for improving animated videos for the age groups of 16-25 and 25-35 years. These two groups are active consumers of multimedia content; however, they differ in terms of attention span, viewing motivation, sensitivity to visual and audio elements, as well as expectations regarding informativeness and presentation style.

The results of the expert evaluation and the research findings confirm that the effectiveness of a video and its overall rating are primarily determined by the quality of communication, visual structure, color solutions, pacing, animation techniques, and emotional impact [25].

6.1 Recommendations for improving the effectiveness of animated videos.

1. Video content. The content should be presented according to the principle of “one idea – one scene” in order to improve attention retention and ensure rapid comprehension. Concise messages and a logical structure enhance the clarity of the video and make the material accessible even to unprepared viewers.

2. Visual component. The composition should contain one clear focal point, while the color palette should support the emotional tone and direct attention to key elements. Bright accent colors are appropriate for younger audiences, whereas adult audiences tend to perceive restrained and professional color tones more comfortably.

3. Animation and technical elements. Movements should be smooth, logical, and synchronized with changes in information, without excessive visual effects. Animated transitions should reinforce the content, emphasize important elements, and create a sense of scene coherence.

4. Sound design. Audio accents should be synchronized with key visual moments, while background music should not overpower the narrator’s voice. Properly adjusted volume levels and rhythm enhance perception and help maintain audience attention.

5. Emotional impact. Emotional accents should reinforce the main message and conclude the video with a sense of logical completeness. The most effective techniques are brief scene contrasts or a final emotional frame that strengthens memorability.

6.2 Video content.

The content should be structured in such a way that viewers can understand it regardless of their level of prior knowledge.

For the 16-25 age group, the “one idea – one scene” presentation format is particularly effective. This approach reduces cognitive load and helps maintain attention within a fast-paced information environment. If text is used within a scene, it should be concise and function as a “core message” throughout the video (Fig. 21).

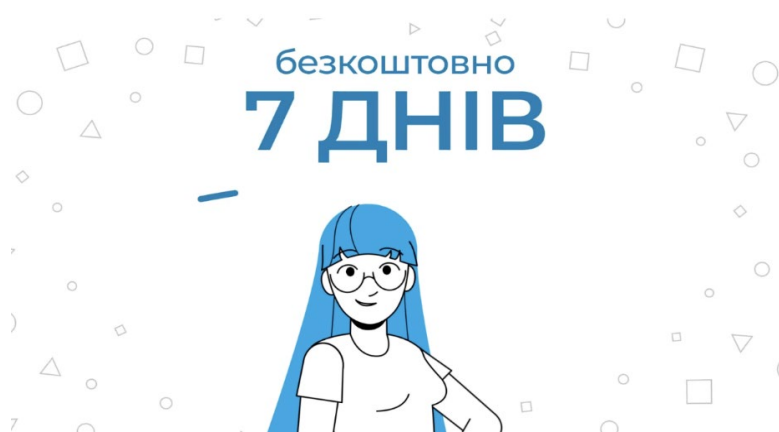


Figure 21 – Short message

For example, instead of the phrase “In this course, you will learn how to create animation for social media,” the shorter message “Create your first animation” is significantly more effective, followed by a visual example in the next scene [15].

For the 25-35 age group, it is advisable to include brief explanations, as this audience values meaningful content and seeks to understand its practical benefits (Fig. 22).

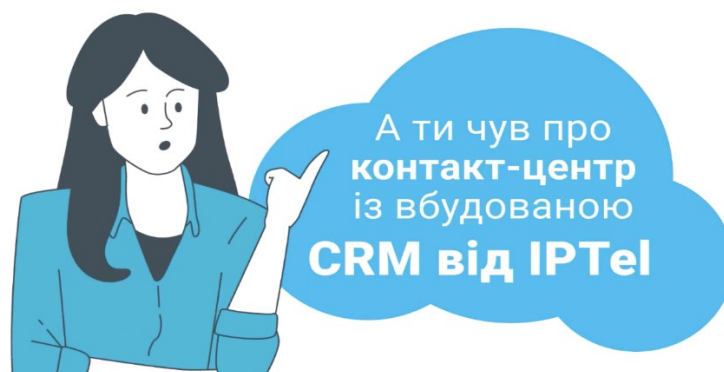


Figure 22 – Long message

For instance, before demonstrating a tool, the phrase “Step-by-step logic” may be used, followed after the demonstration by “Result in 20 seconds.” Such a structure guides the perception of the material and reflects the logic commonly used in contemporary educational videos [13].

There is an effective technique “content loop” where the main thesis is repeated at the end of the video but in a reinforced context. If the beginning presents a problem (“Hard to get started?”), the ending should provide a resolution (“Now you can start easily”). This approach strengthens comprehension of the message and increases memorability.

6.3 *Visual component.*

The visual component determines the first impression of an animated video and ensures the understanding of its content even before the viewer reads the text or hears the sound. Therefore, it is important to carefully select not only the style and composition, but also color solutions that influence attention, emotional response, and the perceived professionalism of the video. Since the 16-25 and 25-35 age groups differ significantly in behavior, content perception, and viewing rhythm, the visual strategy should take into account the specifics of each group.

For the 16-25 age group, clean minimalist compositions with a single dominant object in the frame and a strong color accent work best. Young audiences are accustomed to processing information very quickly; therefore, a “one main element per scene” structure makes the video clear and visually lightweight. In such cases, it is appropriate to use a dark or neutral background with a bright accent color for the main message or character. For example, against a dark blue or graphite background, bright yellow or electric blue colors naturally draw attention to the key object (Fig. 23).

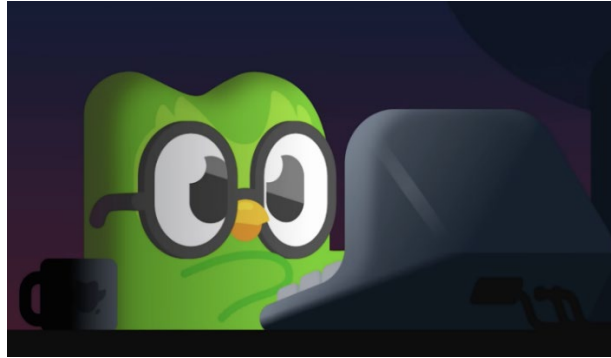


Figure 23 – Accent color of the character

This allows the viewer’s focus to be directed precisely toward the element carrying the semantic load. This logic corresponds to the principles of visual hierarchy, where approximately 40% of the viewer’s attention is directed to the most contrastive object in the frame [15].

Typical color solutions for a youth audience of 16-25 years old (Fig. 24):

- electric blue;
- neon purple;
- bright yellow;
- mint green.



Figure 24 – Color schemes for the 16-25 age group

These colors are effective because they create a sense of modernity, simplicity, and energy, which are the qualities that the younger generation associates with digital products, learning platforms, and creative tools. They quickly establish an emotional signal and work well with minimalist flat illustrations or stylized characters. If objects or interface elements are used within a scene, it is advisable to scale them to 70-80% of the frame height, as younger audiences respond better to large, expressive interface and character elements.

In contrast, the 25-35 age group prefers more restrained, professional, and structured compositions (Fig. 25).



Figure 25 – Visual restraint

Adult users tend to perceive overly bright or “acidic” color palettes as amateurish; therefore, in educational or advertising videos targeting this age group, moderate contrast solutions are more effective. It is important to create a sense of cleanliness and structural clarity within the frame: fixed text placement on the left side, the visual object on the right side, the absence of unnecessary decorative elements, and a minimal number of small details. Typical color solutions for the 25-35 age group are presented in Fig. 26.



Figure 26 – Color schemes for the 25–35 age group

These palettes create a sense of stability, competence, and structural clarity. For example, dark blue combined with light accents enhances the perception of professionalism, while pastel blue reduces visual load in complex scenes. In videos demonstrating tools, processes, or educational material, such colors make the presentation clearer and more comfortable to perceive. They also help maintain attention, as they do not cause visual fatigue or distract from the main information.

Another important element for both target audiences is visual coding. This means that informational blocks can be assigned specific color markers: for instance,

tools – blue, explanations – green, results – yellow. The viewer subconsciously builds the structure of the video, making the content easier to understand. The technique of visual emphasis is also effective – using a slightly darkened background (by 10-15%) with a bright object as the focal point of attention. This is especially useful in scenes where it is necessary to direct the viewer’s focus to a single element.

Overall, a successful visual strategy is based on a combination of minimalism, clear compositional focal points, and a well-designed color logic. Bright accents are suitable for younger audiences, while calm, professional tones are more appropriate for adult viewers. Such an approach makes an animated video not only visually appealing but also more effective in a marketing context, as visual language directly influences the viewer’s decision to continue watching or proceed to a target action.

6.4 Animation and technical elements.

The technical quality of animation determines how professional and convincing a video appears. Even with a well-developed script and a strong visual concept, it is motion, speed, rhythm, and the coordination of elements that ultimately create a sense of integrity. Animation should not draw attention to itself; its role is to make the content more understandable. Therefore, it is important to consider the needs of two key age audiences and select appropriate technical solutions for each.

For the 16-25 age group, perceptible dynamism is essential, but it must remain smooth and natural. Viewers in this age range are accustomed to the fast pace of content on TikTok and Instagram, where motion is delivered through short, cleanly composed scenes. For example, when a new element appears in the frame (an illustration, tool, or character), an optimal duration for its appearance is 0.2-0.4 seconds. This timing prevents abrupt transitions and makes motion feel fluid. In scenes showing processes (e.g., software or tool operation on screen), a slight scale-up or minimal pixel shift effectively directs attention to the relevant area of the frame.

Younger audiences respond better to guided motion: visual paths that lead the eye toward key elements, scaling changes, or sequential object movement. If motion is chaotic or contains conflicting directions within a single scene, perception is disrupted. Therefore, all animated transitions must be logically justified: if information flows from right to left, the next block should not suddenly appear from below or above. Such inconsistency reduces perceived professionalism and makes content harder to follow [24].

For the 25-35 age group, stability and precision of motion play a key role. Adult users are more sensitive to excessive effects; therefore, technical minimalism is preferable. For instance, text in videos targeting this group should appear through a smooth fade-in with low opacity or a gentle slide in a single direction. Rotation or scaling effects should be used only in exceptional cases when they logically emphasize meaning. Animation should support readability rather than distract from it.

One of the key technical techniques that enhances animation quality is consistent motion interpolation. This means that the speed of an object’s movement should not be constant from start to finish. Every motion should include slight acceleration and deceleration phases – this is what makes animation feel alive. If an element appears

and disappears at a uniform speed, it is perceived as mechanical, which reduces the emotional impact of the scene.

Another important aspect is depth management. Even in 2D animation, a sense of spatial depth can be created: the foreground moves faster, the midground more slowly, and the background remains almost static. This technique improves visual quality and clarifies the narrative structure, as viewers intuitively understand which object is most important. For younger audiences, such spatial logic adds dynamism, while for older viewers it creates a more organized and easily readable scene.

Equally important is the correct synchronization between animation and text. If text changes faster than it can be read (less than 2 seconds per phrase for the 16-25 group and less than 2.5-3 seconds for the 25-35 group), part of the information will be lost. Therefore, motion and text appearance should be aligned with reading speed: text appears – animation pauses; text disappears – motion resumes. This approach enhances clarity and ensures a comfortable perception rhythm.

Overall, the technical component of a video should not be merely aesthetic but functional. Every movement should explain, focus, reinforce, or structure information. Animation is not decoration; it is a tool that transforms video into an effective advertising or educational medium.

6.5 Sound design.

Sound design is one of the key factors shaping the overall perception of an animated video. Even with a strong visual component, poorly chosen music or incorrect audio synchronization can disrupt the structure and reduce viewer attention. Sound should not compete with the visuals; instead, it should enhance them by creating an emotional background and a logical rhythm. Therefore, different approaches should be applied for different age groups, adapting volume, rhythm, accent strength, and narration style.

The 16-25 age group is sensitive to energetic backgrounds and fast-paced audio. Young audiences are accustomed to content where sound drives the narrative. Therefore, for videos targeting this group, it is appropriate to use light electronic music or modern pop-style background tracks with a clear percussion pattern. Such music does not overload perception but establishes a rhythm into which the visuals naturally integrate. When an important element appears in the frame – such as a logo, button, or keyword – it is effective to emphasize it with a subtle sound cue. This should not be a loud effect; a soft click or short synthesized signal is sufficient to capture attention and improve memorability.

In youth-oriented videos, synchronizing music with animation is highly effective. When an object moves, a tempo change or a subtle beat accent in the soundtrack makes the scene feel natural and cohesive. However, an excessive number of audio effects creates noise clutter; therefore, balance is essential: one sound effect per semantic emphasis. If voiceover narration is used, it should sound clear but not overly dramatic – young audiences tend to reject overly monotonous delivery.

For the 25-35 age group, the role of sound is somewhat different. Older viewers respond better to calm, clean audio solutions where music does not dominate but instead provides a subtle background layer. For this audience, it is important that sound does not interfere with content comprehension; therefore, background music should be kept at a lower volume than the narration. The music should be steady, without abrupt transitions or sudden intensifications. If the video demonstrates tools or interface actions, sound does not need to accompany every interaction – one or two subtle accents at key moments are sufficient.

Clarity of narration is particularly important. The speaker's pace should match the complexity of the content: faster and more energetic delivery is suitable for simple information, while explanations of processes or algorithms require a calmer tone and slightly longer pauses. Older audiences perceive neutral emotional intonation better, where speech is structured, confident, and friendly.

One of the most important technical principles is proper volume balancing. When a large amount of text appears on screen, background music should automatically decrease so that the viewer can focus on the content. The difference in volume between music and voice-over should be at least 20-30%, otherwise the narration loses clarity. This is especially important in videos containing instructions or complex informational blocks.

It is also essential to avoid a common mistake – lack of synchronization between actions and sound. If an object changes in the frame but the sound response is delayed or premature, viewers experience discomfort. Even a 0.1 second mismatch can reduce the perceived professionalism. Sound effects must be precisely aligned with the appearance of key objects, character movements, or scene transitions [8].

Thus, sound design is not merely a technical component but a tool for directing attention. For younger audiences, sound establishes rhythm and emotional intensity; for older audiences, it structures information and enhances clarity.

6.6 Emotional impact.

Emotional effect is what determines whether a video generates interest, whether the viewer wants to learn more, and whether they proceed to a target action. Even if the informational content is well developed and the visual and technical parameters are properly designed, it is the emotional background that shapes the final feeling of “I want to try this,” “this suits me,” or “this is important for me.” Emotion in an animated video should not be excessive; its role is to create an internal response that reinforces the message and helps the viewer identify with the character or situation.

For the 16-25 age group, an effective emotional approach is based on rapid association and contemporary visual metaphors. Young audiences respond to images that feel familiar within the digital environment: a character overcoming an obstacle in a single motion; a tool “coming to life” on screen; or a scenario where the outcome is presented as a small achievement. This allows viewers to immediately understand that the video is “about them.” For example, in an educational video, a scene may show a character initially confused by a large number of tools and then suddenly finding a

“simple solution.” Such a narrative introduces light humor while also creating a sense of accessibility what young audiences seek in educational and advertising content [25].

Another way to engage younger audiences is through dynamic emotional shifts within 2-3 frames (e.g., a character initially appears surprised or confused but quickly transitions to confidence and joy). This contrast creates “micro-dramaturgy,” which effectively maintains attention and makes the video feel more alive. For younger viewers, it is important to see a positive outcome quickly, as this aligns with the formats they are accustomed to consuming on social media.

In contrast, the 25-35 age group responds better to emotionality grounded in practical logic. For this audience, a sense of usefulness, professionalism, and completeness is essential. Unlike younger viewers, they are less responsive to intense micro-emotions or overly dynamic scenes. Therefore, it is more appropriate to use emotional accents related to results rather than processes. For instance, after demonstrating a short process, a “before/after” scene can be shown, where an object becomes larger, clearer, or more organized – creating a sense of achievement that is particularly important for adult audiences.

One of the most effective techniques for both age groups is a recurring visual motif – an element that appears across multiple scenes and gradually forms an association. This may be a consistent accent color, a small icon, a character, or even a specific motion pattern. When the same element appears throughout the video, viewers begin to perceive it as a “signal of important information,” and it becomes more memorable by the end. This technique is widely used in advertising, as it builds recognition and strengthens the perception of a product or service without explicit repetition.

In advertising videos, it is especially important to create an emotionally strong ending, as the final 2-3 seconds often determine whether the target action will be performed. If the video is aimed at younger audiences, the ending may include a short emotional micro-scene – such as a character winking, making a “thumbs up” gesture, or a bright accent frame. For older audiences, an effective ending is a confident, concise statement on a clean, light background, creating a sense of closure and appropriate tone.

Thus, emotional effect is a synthesis of color, rhythm, character expression, scene structure, and final emphasis. For younger audiences, a fast, vivid, and light emotional response is crucial. For older audiences, emotionality should be logical, restrained, and meaningful. When emotion reinforces content, the video becomes not only visually appealing but also persuasive, leaving a lasting impression and motivating the viewer to act.

Conclusions

Animation videos have become one of the key tools of modern digital communication, as they combine dynamism, visual expressiveness, and the ability to transmit information rapidly. Given the growing role of video content in education,

social media, and advertising, research into the impact of animated videos on viewers is of particular relevance.

This study identifies the main factors influencing information perception in video format. The practical part is based on a combination of audience surveys and expert evaluation of videos according to predefined criteria. This approach made it possible to analyze the impact of animation from both viewers' and specialists' perspectives.

The results of the study show that the effectiveness of animated videos is determined by the coherence of content, composition, color design, technical execution, and sound accompaniment. The most significant factors are message clarity, logical structure, quality of animation transitions, and emotional expressiveness. The synthesis of survey data and expert assessments confirmed that a well-structured video sequence can significantly increase viewer engagement and improve information comprehension. Based on the obtained results, recommendations were developed for creating effective animated videos, covering content, visual, technical, and emotional components.

These recommendations are aimed at improving the quality of multimedia content and can be applied in advertising, educational, and creative fields. The findings may also serve as a basis for further academic research in animation and communication design.

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