A DISCOURSE ANALYSIS STUDY OF EXTRA-LINGUISTIC ELEMENTS IN SELECTED MEDICAL GUIDING VIDEO CLIPS ON COVID19

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ABSTRACT

There has been an increasing interest in the discourse analysis of various genres, yet some areas are still considerably virgin among which are medical guiding video clips on Covid-19 with which this study is concerned. However, some controversy may exist over the types of modes used in these videos and their roles in constructing the intended messages of these videos. This creates a real need to investigate this genre and remove the controversy stated above. The study is based on the hypotheses that medical video clips on Covid-19 are mainly extra-linguistically based. The study also hypothesizes that extra-linguistic elements have great role in involving viewers, to achieve the study aims and verify its hypotheses, two medical guiding video clips quoted from YouTube channel *Provincial Health Services Authority (PHSA)& Dr. Mike Hansen MD channel* have been analyzed in the light of Kress and Van Leeuwen's (2006) model. The results of analysis show that designers of medical guiding video clips on Covid-19 construct the intended messages of their videos by using extra-linguistic elements. The results also show that viewers are got involved into these video clips mainly via extra-linguistic elements especially camera angle and gaze. These results verify the hypotheses adopted in the study.

Keywords

Discourse Analysis, Multimodal Discourse MMD, Extra Linguistic Elements, Medical Video Clips, Covid19.

Introduction

Recently, there has been an increasing interest in the study of dynamic discourse like films and videos due to their efficiency in persuading audience and shaping their attitudes and ideologies. Medical institutions have increasingly made use of video clips in their campaigns to instruct people on how to deal with Corona virus pandemic. Almost no day passes without viewing these clips via different.

The problem dressed in this study is represented by the sort of controversy that may exist over the type of extra-linguistic elements used in these video clips, and the role of these elements in constructing the meaning and the messages intended by these instructive videos. In other words, the problem of the study can be represented by the problematic questions stated below:

1. What are the main extra-linguistic elements used in medical guiding video clips on Covid-19?
2. How do visual and audio resources work together to construct meaning and convince

viewers in what is presented by medical guiding video clips on Covid-19?

On Multimodal Discourse

Variety of meanings is referred to by the term multimodality. Morphologically, the term modality is a compound word established by a combination of the bound lexeme (multi -) which means many with the root (model) plus the derivation morphemeity. Semantically multimodality is used as an umbrella term covering many interpretations. (Pinar, A.G., 2019: 1581).

Multimodal discourse (MMD) refers to the combination of various semiotic modes as in image, color, lit, music and language. It also refers to the different ways in which many discriminate semiotic resources work together and co-contextualize the meaning of text. Multimodality describes the grammar of visual communication used by image designers. So, every semiotic mode is a potential meaning, and multimodality studies the relationship between different modes whether they are image or word, auditory or visual. (Liu, J., 2013: 1260).

MMD means combining two or more modes to make meaning easy to understand. Modes include: spoken and written language, gestural, audio, visual, posters, picture books, graphic novels, text books. In brief, combination of two or more semiotic systems can be defined as a multimodal discourse, which can be physical, digital or print. (Ibid).

Extra-Linguistic Elements of Multimodal Discourse

Gestures

Gesture is often discussed in terms of the concept of language body or the eloquence of the body. In his The Art of Gesture, Quintilian (A35-100) identifies gesture as "a rhetorical device". Gestures are viewed as embodied modes of MMD. (Lim, V.F., 2019: 2).

Images

There is an old folklore wisdom in saying "A picture is worth more than a thousands of words" (Renkema, J., & Schubert, C., 2018:76).

Many scholars affirm that images contribute to meaning construction in MMD. For example, O'Toole views image from a stratification point of view. Lemke explores the interrelation between the graphic and verbiage in scientific article. Like linguistic tools, images convey meaning which suppose the viewer to explore it. Pictures are symbolic building- up from the conventions of specific culture. So, the reader needs to look beyond the images and their cultural, historical, political context in MMTs. (Liu, S., 2019: 1525).

Visuals have two functions: demand and offer. The demand picture is favored in posted magazine photograph and television news reading, when the context needs to link between viewer and authority. The offer picture is favored in T.V drama and feature film which needs real imagination built between viewers and represented participants. As for social distance, the image makes the viewer feel close or far away from the represented participant. In advertisements for example, the size of frame is introduced in relation to the human body. (Hu, C., & Luo, M., 2016: 160).

Angle

Angle represents point of view. Horizontal angel represents the degree of detachment or involvement, while front angle represents the focus attention needed to be paid to an object. Vertical angle, on the other hand, implies different degrees of power. High angle makes a subject look small and less significant. The low angle gives a look of superiority and triumph, while eye-level angle refers to equal, normal and neutral relationship. (Hu, C., & Luo, M., 2016: 160-161).

Movement

Movement is introduced as mode in any given discourse. For example, the movement of an object from top to bottom in picture indicates the change of the situation from being perfect and unreachable to truest and accessible. (Feng, D., & Jing, C., 2011: 60).

Facial Expressions

Facial expressions convey specific messages to the listener or reader. A smiling face may refer to agreement, happiness, interest, comfortable situation which create a positive atmosphere .We meet other people by their faces to identify or engage with them. When we meet a person, we look at her/ his face to search for an answer about who is that person, his feelings toward us, his state. Facial expression is one of connections used in communication, it's a mode of communication. Sometimes, it is more honest than words, it reveals others' cultures, personality, emotion, social identities. (Manusov, V., 2015: 1- 2).

Colors

Colors are used as a signifier or mode in images. The white color in hospital rooms aims at calming patients down, bright colors connect with happiness, delight and hope. Painters often use color to convey meanings. Like language, color conveys interpersonal meaning and enables us to realize speech act as when the color is used to calm people down or send messages for viewer. Color also helps to create coherence in the text as in pasos (a Spanish language text book). Distinct colors are given to each chapter headings and page number. Color coordination is used to strengthen textual cohesion by making the color of page or any section of the text have the same range of brightness. Colors can integrate with many other modes on typography, document design, etc. (Kress, G., & Van Leeuwen, T., 2002: 384, 352).

Methodology

4.1. The Adopted Model

The study adopts Kress and Van Leeuwen's (2006) to analyze the visual and audio elements of the selected videos. Figure (1) shows the elements of the model adopted.
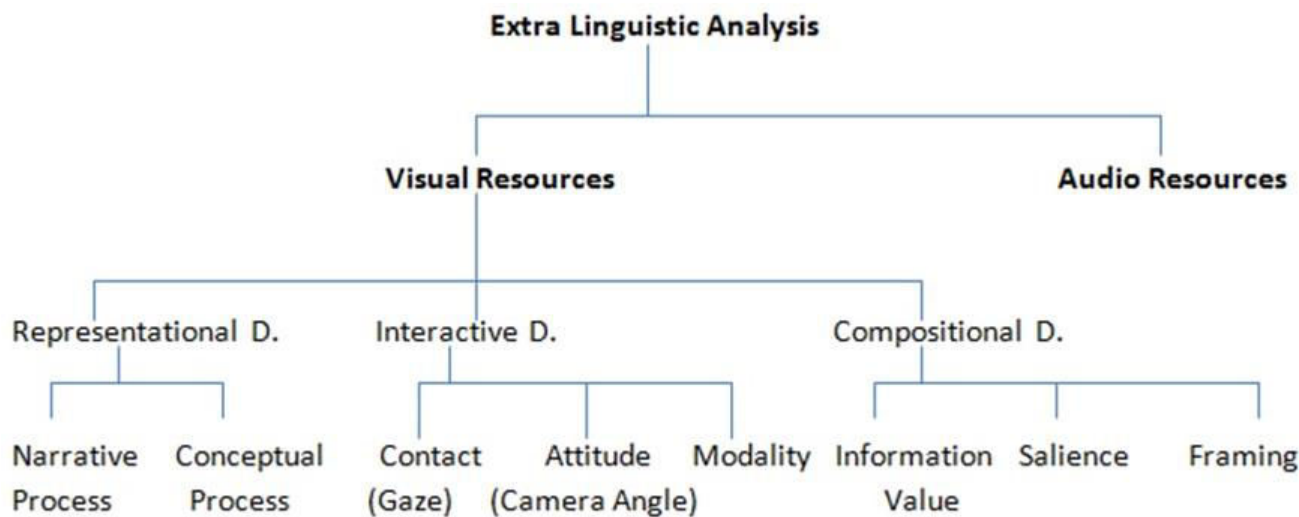

Figure 1. The Adopted Model

4.2. Kress and Van Leeuwen's (2006) Model

Kress and Van Leeuwen's (2006) model is based mainly on Halliday's (1978, 1994) Systemic

Functional Linguistics (SFL) which views language as social semiotic. It follows three metafunctions, namely the ideational, interpersonal, and the textual metafunctions. Then, the theory expanded to cover the meaning constructed by different semiotic systems in multimodal discourse. According to Kress and van Leeuwen (2006:59), these three metafunctions in SFL are not limited to language, but they can be applied to all semiotic modes.

In their visual grammar, and analysis of visual images, Kress and Van Leeuwen (2006) use different terminologies. They use representational instead of ideational; interactive instead of interpersonal, and compositional instead of textual. (Liu, J., 2013:1259).

Kress and Van Leeuwen (2006:59) illustrate that extra-linguistic elements in images are divided into two resources namely: visual and audio resources each one of which in turn has many branches as introduced below.

4.2.1. Visual Resources

According to Kress & Van Leeuwen's (2006:59) visual grammar, visual images can be further analyzed in terms of three dimensions: representational, interactive and compositional.

4.2.1.1. Representational Dimension: Narrative and Conceptual Processes

Representational dimension means "any semiotic mode has to be able to represent aspects of the world as it is experienced by humans. In other words, it has to be able to represent objects and their relation in a world outside the representational system" (Kress &Van Leeuwen, 2006:42). Elements or objects existing in visual images are called "participants" that include place, people, and things that appear in and by images. In fact, every semiotic act includes two types of participants: interactive and represented participants.

Interactive participants are those who do "who speak and listen or write and read, make images or view them" (the actors). (Kress &Van Leeuwen, 2006:48).

Represented participants are those "who constitute the subject matter of the communication; that is, the people, places and things (including abstract 'things') represented in and by the speech or writing or image, the participants about whom or which we are speaking or writing or producing images" (Ibid).

Representational meaning can be labeled into two categories: narrative and conceptual process.

4.2.1.1.1. Narrative Process

Narrative process includes action, and reaction processes. In action process, "the Actor is the participant from which the vector emanates. When images or diagrams have only one participant, this participant is usually an Actor." the structure is then called non-transactional process; but when there are two participants respectively performing as the Actor and the Goal, the structure is called transactional process. The participant who does the action of looking is called the Reactor, whereas the thing (object or another participant) who receives the gaze is called the 'Phenomenon".

In reactional processes, "the vector is formed by an eye line, the direction of the glance of one or more of the represented participants" (Kress & van Leeuwen, 2006:67).

Vectors can be figured by bodies, tools or limbs in action. Participants acting as the vectors are named 'Actors' and those receiving it are named the 'Goals'. (Ibid).

4.2.1.1.2. Conceptual Process

Conceptual process is static and "portrays participants in terms of their structure, class, or meaning". (Kress and Van Leeuwen, 2006:59). It is related with the ideas pictured in the images and how participants can be classified or analyzed. Conceptual processes can be either analytical or symbolic.

Analytical process is static, it portrays visual elements in particular structure. It also discusses

the part-whole structure, including two types of participants, the Carrier (the whole) and the Possessive Attributes (the parts).

Symbolic process is related with participants, what they mean or what they are. According the number of the participants involved, the symbolic processes, which discuss the meaning of participants, can be classified into: symbolic suggestive and symbolic attributive.

Symbolic suggestive process includes one participant, the Carrier, with the symbolic meaning being performed in another way. On the other hand, symbolic attributive process involves two participants, the Carrier whose identity or meaning is associating in the relation, and possessive Attribute which introduces 'the identity or meaning itself'.(Ibid).

4.2.1.2. The Interactive Dimension: Contact, Attitude, and Modality

This dimension presents the interaction between the interactive participants (producers and the viewers) of the image. They state that there are particular factors which enable producers to encode social meanings visually into images. These factors include the contact 'gaze' of the participants, and the 'angle' from which the viewer see the participants and the modality. (Ibid).

4.2.1.2.1. Contact: Gaze

According to Kress and van Leeuwen (2006: 119) contact is created by eye gaze or gestures of represented participants. According to the kind of relation that occurs between the depicted participants and the viewers in the image, there are two types of gaze: demand, and offer.

Demanded gaze occurs when the participants look directly at the viewers. In this situation, the participants seem as if demanding something from the viewers. They look as if the participants address the viewers with a visual "you", and so founding an imaginary relationship with them.

Offer gaze occurs when the participants do not look directly at the viewers, "where the

represented participants to the viewer as items of information, objects of contemplation, impersonally, as though they were specimens in a display case" (Ibid).

4.2.1.2.2. Attitude: Camera Angle

Attitude concerns the relations between represented participants and the viewer. It is socially determined, and realized by the selection of the angle .As Kress and van Leeuwen (2006:129) state, the angle reflects the degree of interference of image producers and viewers jointly with the represented participants. They discuss two types of angles: horizontal and vertical.

Horizontal angle is "a function of the relation between the frontal plane of the image-producer and the frontal plane of the represented participants". It consists of (frontal and oblique) angels which respectively indicate producers' involvement and detachment of the participants.

Vertical angle refers to power relationships between viewers and participants. Camera angle can be (1) high where the participant is seen as powerful when it is portrayed from a high angle, (2) low where the participant is seen as being holding the power in this relationship when it is portrayed from a low angle, or (3) eye level angle which is neither higher nor lower, the relationship is considered then as equal.(Ibid).

4.2.1.2.3. Modality

Modality is achieved by a complex interaction between visual signals and the total evaluation which is derived by the viewer. Through modality, viewers can judge the amount of realism in the image. Two criteria are used for analyzing modality (1) coding-orientations of the image by which the images can communicate their messages, and (2) modality markers of the orientation are the components of the image that introduce some sides of the image realism.

Color is considered as a sign of naturalistic modality. Its role can be explained via three scales:

a. Color saturation: It is a scale where there is a change from complete color saturation arriving to the absence of color, such as black and white

b. Color differentiation: It is a scale where there is a continual from a maximally various scope of colors to one color.

c. Color modulation: It is a scale where there is a change from "fully modulated color with, for example, the use of many different shades of red, to plain, un modulated color". Kress and Van Leeuwen mentioned other key markers like 'representation', 'contextualization', and 'illumination'. Each one of them work on a scale "from the low modality to the highest modality". (Ibid: 160).

4.2.1.3. Compositional Dimension: Information value, Salience, and Framing

This dimension focuses on composition: how interactive and representational elements are related with each other in the image to produce a meaningful whole. The elements of the image may be categorized into three systems: information value, salience, and framing.

4.2.1.3.1. Information Value

Element positioning "syntagms and participants that link them to each other and to the viewer'' (Kress & van Leeuwen, 2006:177), gives them the particular informational values joined to the different 'zones' of the image: top and bottom left and right, center and margin .Top to bottom position introduces the information from ideal to real, while left to right composition introduces the information from given to new. Center and margin composition denote the greater emphasis on the central part of images. (Ibid).3

4.2.1.3.2. Salience

According to Machin (2007: 130), the aim of salience is to draw the elements and participants, and attract the viewer's attention to different degrees. This could be demonstrated by factors like relative size, foregrounded or back grounded

placement, sharpness and contrasts in colors, etc. depending on their thought.

4.2.1.3.3. Framing

The framing tools are recognized by elements making dividing lines, or to some extant frame lines. Their existence or absence can disjoin or join elements of the image. Framing is concerned with framing devices used to *connect* or *separate* visual elements. Separating can be achieved by frame lines, graphic devices, empty spaces between elements and discontinuities of color which create a sense of separation. Whereas connected lines, likeness of colors, visual shapes can be used to connect visual elements. So, a sense of involvement and belonging is indicated. (Ibid: 164).

4.1.2.1. Audio Recourse: Pitch and Music

Van Leeuwen (1999:111) states that rises in pitch matches maximal vocal effort, and therefore he refers to rises in pitch as "activation" where "the more the pitch rises the more active and interactive the participants involved in its production and reception will be". Falls in pitch matches a decrease in vocal effort and therefore understood as "deactivation" where participants are "brought into some state of non-activity-relaxation, contemplation and so on" (Ibid).

Cooke, (1959:69) states that sloping melodies describe new emotion where ascending melodies describe the expression of external emotion. Van Leeuwen (1999:54) states that the pitch range is related with the extension of emotion. According to him, an increase of the pitch range allows for an increased expression of feelings and attitudes, whereas a decrease of the pitch range denotes emotional containment which in turn denotes a lack of energy.

As Machin (2010:102) briefly puts it, "a large pitch range means letting more energy out, whereas a small pitch range means holding more energy in". The pitch level is various, it can be

Data Analysis

5.1. Analysis of Video No. 1 "Covid-19 Test for Children"

5.1.1.1. Introductory Note

5.1.1.1.1. On the Designer

This video is designed by Lisa Knight, a authenticated Child Life Specialist in the "*Radiology Department at BC Children's Hospital*". Her job is to help children and their families defeat mental and physical challenges by playing, and self-expression. She also introduces medical guiding videos. In this video, she shows viewers how doing Covid-19 test for children is simple to reduce the fear and tension of children and parents from test. (facebook.com/BCCHF/photos/a.119108230804/1 0153514755330805).

5.1.1.1.2. On the Video Clip

This video was introduced by Lisa Knight on 6/7/2020 by Provincial Health Services Authority PHSA YouTube channel. It lasted for 2:07 minutes. Here, Lisa Knight introduces herself as a child life specialist, and presents an introduction about Covid-19 including its symptoms and the necessity of doing a test to ensure if its covid-19 or any other infection. Then she introduces Nicole a nurse at BC Children's Hospital**,** to show viewers everything about how we do a test, another participants appears in this vide: a family father with his daughter, doing the covid-19 test.

5.1.2. Analysis of Linguistic Elements

5.1.2.1. Visual Recourses

5.1.2.1.1. Representational Dimension

5.1.2.1.1.1. Narrative Process

In this video, both action processes and reactional processes are shown. Frames 1,2 include action process, Lisa and Nichol are actors doing the action waving. In frame 2, Nichole wears protective yellow gown to keep everyone safe from germs. She appears in dynamic scenes to show their procedures and circumstances in hospital. Frames 3,4 contain reactional processes, with vectors shaped by their eye lines.
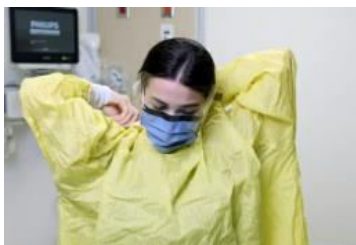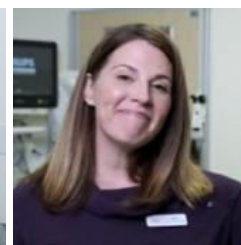

| Frame 1 | Frame 2 | Frame 3 | Frame 4 |

5.1.2.1.1.2. Conceptual Process

In this video, both symbolic suggestive and symbolic attributive processes are included. Symbolic suggestive processes can be analyzed in Frame 5 which suggests the image of coronavirus as a ball that has many crowns in blue color spread in the air. Frame 6 can analyzed also as symbolic suggestive, which inspire the feeling of kids like when you get water up your nose. While frames 7&8 can be analyzed as symbolic attributive which depict how far the swab needs to go inside to check for a virus that might be way at the back of your nose.
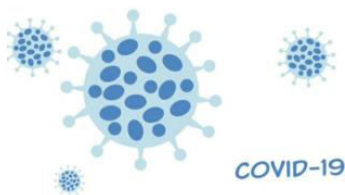
Frame 5   **Frame 6**   **Frame 7**   **Frame 8**

5.1.2.1.2. The Interactive Dimension

5.1.2.1.2.1. Gaze

Two types of gaze can be recognized: direct and indirect. Frames 1, 2 & 3 show direct gazes at viewers. So, this image offers information .Whereas in frame 4, the represented participant looks directly at viewers as if she addresses the viewers with a visual "you" creating an imaginary relationship with them. Also the presented participant looks as demanding something from the viewers, which appear from her smiles, as she encourages the viewers to do the test.

5.1.2.1.2.2. Camera Angle

By choosing a particular angle, image producer wishes to show the degree of alignment between the viewer and the represented participants. Most of the scenes in this video have eye level angle or neutral shot which identifies equality, and has a psychological effect on the viewer, since the level of camera looks righteously with the subject .According to selecting eye level angle, the producer aims to introduce in a dynamic scene how Covid19 test is done, trying to encourage parents for doing a test for their children.

5.1.2.1.2.3. Modality

In this video, a natural range of colors and a low degree of abstraction are prominent. Using natural balance color reveals the credibility of situation as we see the little girl doing the test with her father in hospital. This can create a comfortable atmosphere introduced by girl's smile. A 'high modality' can be realized as persuasive, because it can appeal to the emotions of the viewers. So, it encourages people to do the test to make sure if it is covid19 or not, which in turn helps to reveal infection and limit of outbreaks.

5.1.2.1.3. Compositional Dimension

Frames 9, 10, 11 &12 show new information about doing the test in series levels. Frame 9 shows how to keep still during the test by the help of parents. Frame 10 introduces new information that test is done by swab, and measures how far the swab needs to go inside your nose. Frame 11 depicts doing a test, after that the girl leaves hospital with good health and smiling face shown in Frame 12 when she waves to the nurses. This can reassure viewers about the safety and easiness of the test. Salience occurs in frame 13 when a small swab takes the central position with single close shot camera which makes it a prominent object. This makes viewers see how skinny it is, and how it is designed carefully to check for a virus at the back of your nose. Framing is introduced in frame 14 to show the connection between participants Lisa and Nichol, in the same environment, Hospital, for same issue Covid-19 test for children.

Frame 9   **Frame 10**   **Frame 11**

Frame 12   **Frame 13**   **Frame 14**
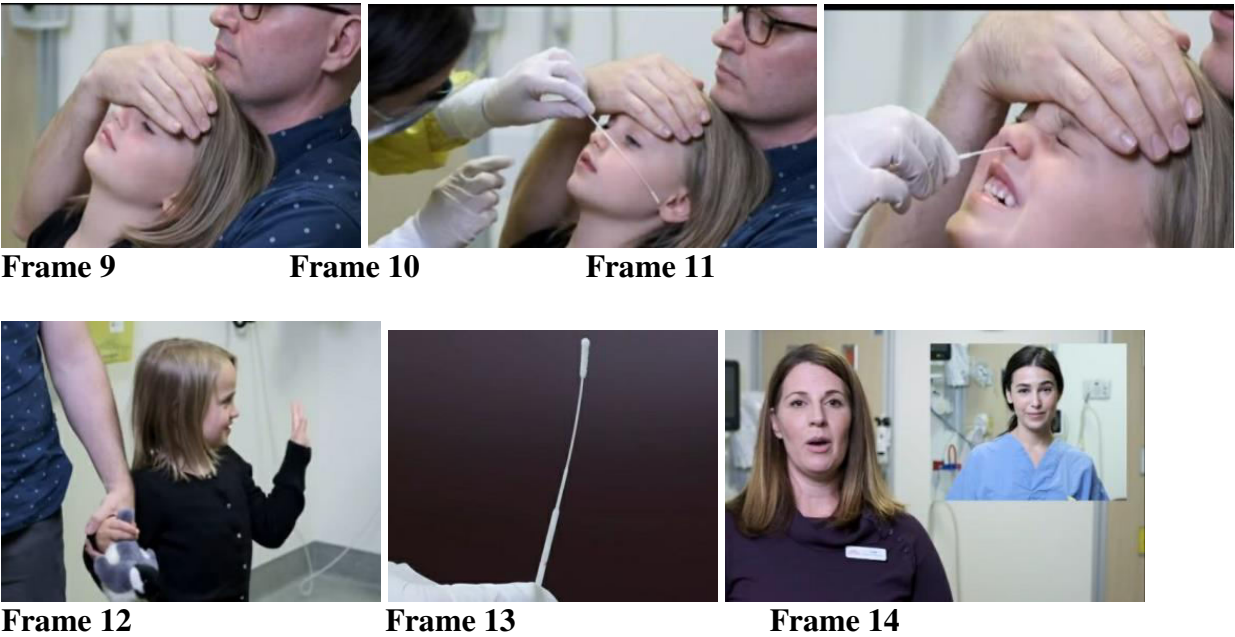
5.1.2.2. Audio Resources

The video opens with calm, joyful kids background music, mixed with music for pranks and kids motivational shouts yahhhhhhh. This is produced when the test ends to refer to happiness for doing a great job. This music has informative function, it gives the viewer information about covid-19 test, that it is easy and safe. The pitch of speaker's voice also differs, it takes a rung between low level at the beginning of the video entrance to high level pitch when introducing the symptoms of pandemic. The video also ends with joyful music when Lisa says Goodbye. This reflects the ideology of the designer who aims to addresses children specifically. The extra-linguistic elements of this video can be introduced in the table below:

Table 1. Extra-Linguistic Elements in Video No. 1

Participants	Visual Resources								Audi Resources	
	Representational Dimension		Interactive Dimension			Compositional Dimension			Background music	Pitch
	Narrative process	Conceptual process	Gaze	Angle	Modality	Information Value	Salience	Framing		
Video as a whole	☐	☐		eye level	High	Given			joyful kid music	activation, deactivation & kids shouts
Lisa	Actor		Demand							
Nichol	Actor		Demand							

Two nurses waving			Offer							
Nichole wearing yellow gown										
The father looking to the boy	Actor		Offer							
The girl	Actor	suggestive			Given					
The swab						✓				
swab go inside nose		Attributive			Given					
The girl doing test		Suggestive			Given					
Image with two nurses							Connect			
Corona virus		Suggestive								

5.2. Analysis of Video Clip No. 2 "*The Truth of How Covid-19 Spreads and prevention of Covid-19*"

5.2.1. Introductory Note

5.2.1.1. On the Designer

Doctor Mike Hansen MD is the designer of this video, he is a medical doctor, specialized in internal medicine, pulmonary disease and critical care medicine .He received his medical degree from Saint George's University in Grenada. Doctor Mike Hansen wishes to provide people with the most precise, and recent health content. The reason that makes him introduce medical guiding videos is that he believes patient education is what at first allows people to improve their health dramatically. So, he can teach the best ways to limit or prevent stroke, cancer, Covid-19, heart attacks. He can also teach people how to increase their mental, physical, fitness and energy levels. (doctormikehansen.com).

5.2.1.2. On the Video Clip

This video was introduced by Dr. Mike Hansen on 16/7/2020 aired from his YouTube Channel. It lasted for 18:18 minutes. Here, he introduces the ways by which Corona virus spreads, the reason why hospitals design N95 respirator mask and eye goggles, the material of which masks are made, why social distancing is important, how far the physical distance must be, the necessity of hand sanitizers, avoiding hangs and handshakes, and the importance of opening the door. The participants are ordinary people performing

different actions such as coughing, singing, running & wearing mask.

5.2.2. Analysis of Extra-Linguistic Elements

5.2.2.1. Visual Recourses

5.2.2.1.1. Representational Dimension

5.2.2.1.1.1. Narrative Process

Both of Action process and reactional processes are included in this video. Frames 1,2 &3 contain action process, three actors appear, the man who coughs represents one of symptoms of Covid-19. The women doing the exercise of running reflects how the infection happens: when an infected man coughs then, the droplets and aerosols remain in the air, the virus lingers in the air and then the woman comes and inhales that virus into her lungs. In frame 3, doctor Mike explains how to wear the mask. Whereas in frame 4, an eye line a glance, by the participant, forms a vector that connects him with other participants.
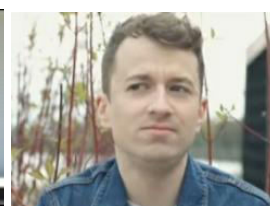

**Frame 1**   **Frame 2**   **Frame 3**   **Frame 4**

5.2.2.1.1.2. Conceptual Process

The conceptual process in this video includes symbolic suggestive & symbolic attributive. Frame 5 can be analyzed as symbolic suggestive that contains one participant. This suggests that during a normal speech, the tiny particles are emitted from the mouth and they can range in size which may carry the virus. Frame 6 also contains symbolic suggestive which shows the image inspire with shape and color of bacterial particles that stay suspended in the air and can be inhaled by other people. Frame 7 can be analyzed as symbolic attributive which includes more than one participant who portrays flying on an airplane, and how crowdedness cause infection.
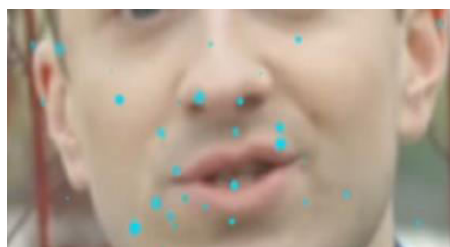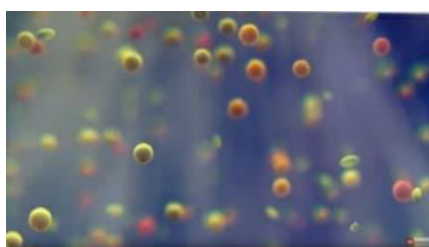
Frame 5   **Frame 6**   **Frame 7**

5.2.2.1.2. The Interactive Dimension

5.2.2.1.2.1. Gaze

According to contact, two kinds of contact can be recognized: in frame 3, the represented participant Dr. Mike looks immediately at viewers. He looks as if he demands the viewers to protect themselves by wearing mask. Also Dr. Mike demands the viewers to listen to him and follow his protective instructions. Whereas the represented participants in frame 1,2&4 do not look directly at viewers, so the image offer information.

5.2.2.1.2.2. Camera Angle

Most shots are neutral camera angle neither superior nor inferior. They reflect objectivity sense, which aims to make the viewer pursue the action without impact their emotions. It can break down barriers by simulating how we see people in real life with our eye line interacting with theirs. It also shows that the represented participants and viewers are equal in power and generalize all instruction and tips.

5.2.2.1.2.3. Modality

Naturalistic modality is achieved via brightness, divers of color and details of image. Most of the shots portray real situations. So, images are of high modality. Color saturation is shown in frame 8, where there is an absence of black and white to show how far the air goes when someone coughs or sneezes. In frames 9 and 10, color differentiation is used by making background image black and the introduced information in bright green which makes information more prominent in frame 9. The red color in frame 10 makes the virus more prominent. While in frame 11, representation color is used to show how far the cloud of coughing can be which signifies the necessity of physical distance.
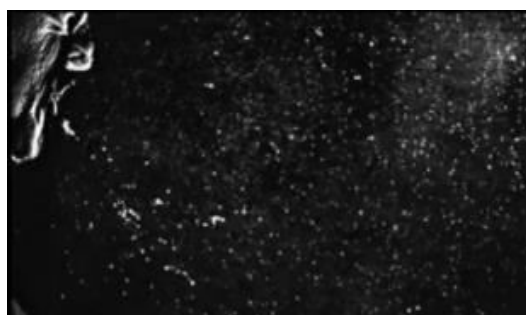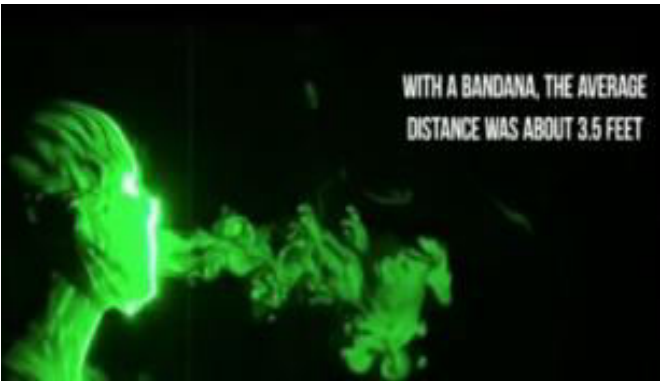

Frame 8
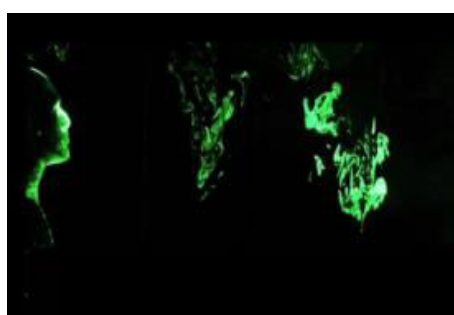
Frame 9
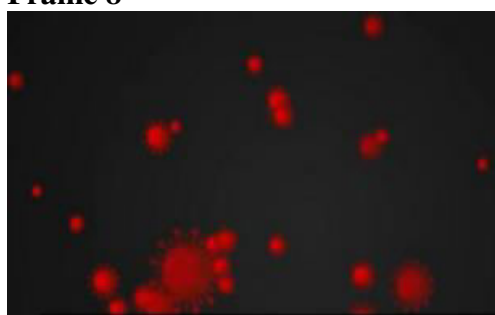
Frame 10

Frame 11

5.2.2.1.3. Compositional Dimension

Information values in Frames 12, 13, 14 &15 show the importance of mask. Many studies found that coughing expels the gas up to 12 feet in span of 50 seconds. They cover the dummy's face with different types of face covering to find what is the effective one. Without a face covering the average jet distance was 8 to 12 feet. The given information is introduced in connected images. Frame 12 depicts the face mask with a bandana made out of elastic- shirt the average distance about 3.5 feet. Frame 13 introduces commercial mask which reduces spread of droplet to 8 inches. Frame 14 shows cotton mask which reduces spread of droplet to about 2.5 inches, which was the most effective one. These pieces of information are introduced in series, since the video is progressive. Shifting from one shot to another, new information is introduced. Dr. Mike in frame 15 shows N95 mask in front of camera that makes it salience.

Frame 12 Frame 13

Frame 14 Frame 15
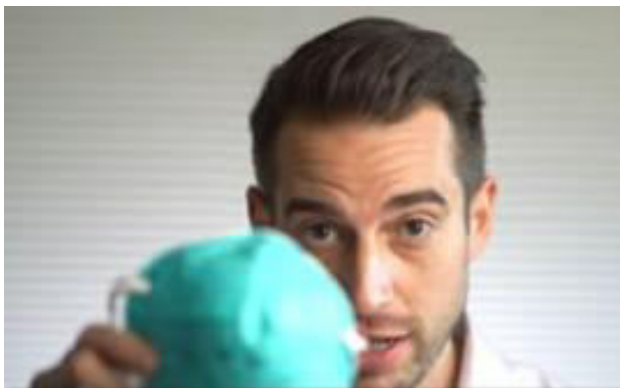
5.2.2.2. Visual Recourses Audio Resources

Background music does not appear, a joke appears between scenes to add some sort of reliefs, different ranges of pitch are recognized. They differ from high to low level. Intervals in speech occur when introducing new information coinciding with the movement of camera. When Dr. Mike stops talking for seconds, the camera moves to close position, then new information is introduced with high level pitch. The extra-linguistic elements can be summarized in the table below:

Table 2. Extra- Linguistic Elements in Video No. 2

Participants	Visual Resources							Audio Resources	

	Representational Dimension		Interactive Dimension			Compositional Dimension			Background music	Pitch
	Narrative process	Conceptual process	Gaze	Angle		Information Value	Salience	Framing		
					Modality					
Video as a whole	☐	✓		Eye-level	high modality	Given–new				Activation & deactivation
Dr. Mike	Action		Demand							
The man coughing	Action		Offer							
The woman doing exercises	Action		Offer							
The man looks away	Reactional		Offer							
Tiny particles emitted from the mouth of man		Suggestive			Full modulation					
Image of how far air go when coughing or sneezing					Color saturation					

image with shape and color of bacterial particles stay suspended in the air		Suggestive			Full modulation								
flying on an airplane		Attributive											
Images of dummy with different masks					Full modulation	Given							
N59 mask							✓						

Discussion of Analysis Results

The results of analyzing the selected videos are discussed here in the form of answers to the research questions raised in (1. Introduction)

1. What are the main extra-linguistic elements used in medical guiding video clips on Covid-19?

This question can answered by considering Table (3) which summaries the frequency and percentage of extra-linguistic elements in the two selected videos:

Table 3. Frequency & Percentage of Extra-Linguistic Elements in the Selected Medical Guiding Video Clips

Video No.	Participants	Visual Resources															Audio Resources			
		Representational Dimension				Interactive Dimension						Compositional Dimension						Background Music		Pitch	
		Narrative Process		Conceptual Process		Gaze		Angle		Modality		Info. Value		Silence		Frame					
		F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1.	10	4	40	4	40	4	40	1	10	1	10	4	40	1	10	1	10	1	10	3	30
2.	11	4	36.3	3	27.2	4	36.3	1	9	5	45.4	3	27.2	1	9%	0	0%	0	0%	2	18.1

Tot al	21	8	38.0	7	33.3	8	38.0	2	9.5	6	28.5	7	33.3	2	9.5	1	4.7	1	4.7	5	23.8

As Table (3) indicates, the frequency & percentage of narrative process are higher than conceptual process, as shown in videos 1 & 2. Concerning interactive dimension, camera angles in the selected videos are mostly neutral and of highly modality. According to compositional dimension, information value has high frequency, which means new and given information in videos are introduced in series scenes. Whereas audio recourse attains high frequency& percentage, which confirms that most of medical videos are introduced with background music, which means it has great effect on viewers comprehension.

Based on the above results, it can be deduced that medical video clips mainly use narrative processes more than conceptual processes, with natural camera angles &high modulations, and given information with music.

2. How do visual and audio resources work together to construct meaning and convince viewers in what is presented by medical guiding video clips on Covid-19?

The answer to this question can be inferred from tables (1 & 2), which show that any medical video cannot be introduced by single mode. Each mode adds something to another to achieve effective comprehension and persuasion of viewers. Images are linked with charts to illustrate meaning, according to the change of speaker's voice, intonation and background music to suit the presented information, then the meaning becomes clearer and more convincing to viewers.

Conclusions

Based on the findings of the study, the following conclusions can be drawn:

1. Visual modes are the basic ones in medical video clips. They can successfully portray the medical issues about Covid-19 pandemic.
2. Each of the modes employed in the video clips has a complementary role and reinforces other the role of other modes.
3. Using different modes in dynamic discourse has a great role in constructing the intended meaning of medical guiding video clips on Covid-19
4. Designers of medical clips tend to involve the viewers into their videos via extra-linguistic elements especially camera angle and gaze.
5. Based on points (1-4), the hypotheses adopted in the study are verified.
6. Extra-linguistic elements in medical video clips work as a tool, to make complex information easier to understand. Using colors, illustrations, charts and images helps to achieve the goal of the video and the delivery of medical information to the general public, especially to those who do not have any scientific medical knowledge.

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