Social Meaning Making of Preschoolers through Animated Videos: A Multimodal Social Semiotic Analysis

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Abstract

The concept of literacy is continuously evolving in the era of digital modern technology. Now literacy is studied in terms of dynamic entity of multimedia technology especially for the children learning in preschools. This study aims to find out young children's meaning-making through animated videos in a preschool background. It points out that communication and meaning making through multiple modes (gaze, gestures, sounds and body movements) is not restricted to words only. A multimodal standpoint asserts that language "is not as some directly independent entity but as a part of complex sets interconnecting forms of human semiosis" (Christie, 2002, p. 3). The present article tries to address the gap of modern multimedia use and its significance in the field of literacy. It advocates the notion of applying innovative technology for literacy purposes in the field of education in the form of moving visuals and animations. 40 children of age group 2-3 years were randomly selected from district Mandi Bahauddin and were shown three animated videos. All three videos were analyzed on the basis of three categories of Ideational, Interpersonal and Textual metafunctions presented by Kress and van Leeuwen in 1996. Observation and Interviews were especially utilized as research instrument for data collection. The results showed that children derive multiple meanings through their interaction of moving visuals used for literacy purposes in pre-school setting. This study found that when these videos were used for literacy purposes, they gave exemplary results especially for young children. The researchers in this study also found that young children after learning and making meaning through animated video try to communicate and perform the actions through verbal interaction, gaze, body movements and gestures.

Keywords: *animated movies, preschool children, social semiosis*

Introduction

With the advancement in technology, the ways of communications and meaning making have also been evolved into multidimensional subject of study. The analysis of different modes of meaning making and communication by young children is also a new field of study. The analysis of young children's communication and meaning making through gaze, gestures, sounds, actions and body movements have also broadened the

scope of study. This new dimension is termed as “multi-semiotic systems” (Matthiessen, 2004) which also has a second name as multiple literacies. A multimodal standpoint asserts that language “is not as some directly independent entity but as a part of complex sets interconnecting forms of human semiosis” (Christie, 2002, p. 3). There is a growing need of study “fundamental separation of human social behavior into verbal and non-verbal aspects both on conceptual and functional grounds” (Beattie, 1981 as cited in Moerman, 1990, p. 1). Recently some literacy scholars (Jewitt & Kress, 2003; Kress & Leeuwen, 2001) have suggested a new theory of social semiotics by taking into consideration the limitation of semiotic theory. They point out Halliday’s idea of language as a social semiotic. Halliday objects the Saussure’s structural theory of language as it does not take into account the language used in specific sociocultural context and when it is used, it represents ideational function as well as social (Interpersonal) function of it. “Language as a social semiotic” means “interpreting language into particular sociocultural context in which the culture itself is interpreted in semiotic terms” (Halliday, 1978, p. 1).

Kress opines that by focusing only on verbal mode means “an overlooking of other communicational and representational modes and resultantly the suppression of theoretical basis of such modes” (2000, p. 157). Thus it is not enough to consider language as a robotic function but it represents itself in social semiotics. There is an expanding popularity of multidisciplinary consensus to move beyond linguistics in the field of literary practices. Researches in the field of multimodality have indicated how different modes (visual, gestural, mimetic, spatial, kinaesthetic as well as verbal) are used in combination for communication and meaning making in particular sociocultural context which is actually multimodal social semiotic analysis of meaning making by young children. The present study investigates the young children’s meaning making with special reference to animated movies shown for literary purposes in preschool context. “The multimodal social semiotic analysis does not mean to negate the importance of linguistic modes of language or elevate the theory of semiotics but the interconnectivity of both in the face of media” (Franks & Jewitt, 2001, p. 201).

The present study shows that children make different types of meaning through animated videos and communicate these in multiple ways during the screenings. These meanings are made in many different ways and are communicated through various factors. The social interaction of the young children with their peers, school teachers and parents plays a key role in meaning making. The young children also make meanings on the basis of previous experiences of moving images and through the familiarity of stories. The study also observes that young children are highly competent

in practicing literary skills through animated films by the interpretation of these films in various ways.

Research Questions

The present study tries to find the answers of the following questions:

1. How are meanings made and communicated by young children through animated videos?
2. What kind of social interaction of young children can be found with peers and preschool teachers during the screening of animated videos?

Literature Review

Communication is a diverse form of language and in order to study it in all its diversity and versatility, different modes in combination of sociocultural context are necessary. Researchers studied communication in various forms until recent theory "multimodality" emerged in the field of linguistics. Multimodality is originally rooted in Hallidayan social semiotics (Halliday, 1978), and is elaborated by Kress and van Leeuwen (2006) in the visual realm. Kress and Leeuwen (1996) call multimodality as combination of different modes in particular semiotics. Multimodal analysis is "analysis of communication in more than one semiotic code" (Kress & Leeuwen, p. 183).

Multimodal analysis applies to both written text and moving images. Kress and Leeuwen (2006) explored the interactive relationship between image and viewer and the meaning making process as well. Kress and Leeuwen differentiate between grammatical and lexical approach of semiotics and also highlight the multimodal features, structures and relations between social structures and forces.

Jewitt & Carey (2009) also observed in their study of multimodal analysis that multimodality not only takes into account different types of modes in combination but it also emphasizes the social context of a specific text. Jewitt, Carey, Kress & Gunther (2003) pointed out that literacy has gone beyond the traditional teaching methodologies restricted to teachers and peers only. The modern technology has changed the classroom practices into multiliteracy digitalized education.

Siegel (2006) evaluates different contemporary approaches towards multimodality and multiliteracy in his research of "reading the signs." He points out that multiliteracy combined with multimodality brings holistic improvement in the comprehension of young children and their mean making.

Haggerty (2011) researched the children's multimodal meaning making and this study focused children's meaning making through dramatic play and videos. The children were observed during and after watching the

videos and the children's teachers and parents were also interviewed afterwards to check comprehension of the children. The study showed that videos and moving images provide diverse semiotic and multimodal literacy to children in their meaning making and communication.

Educationists have emphasized on the need of further study to use visual images and the effects on the minds of young children in Pakistan (Daniyal & Hassan, 2013; Hassan et al., 2015; Ikram, 2015; Malik & Nasir, 2014). The present study tries to fill the gap of research in the field of animations used for literacy purposes of young children in Pakistan. The study also endeavors to explore the process of meaning-making of young children after watching the animated videos for literacy purposes.

Methodology

The present study is qualitative in its approach because this study proposes a deeper insight into the actions (verbal interaction, sounds, gaze/eye movements, gestures and position) of young children which is a salient feature of qualitative research method (Marcus, 2001). Animated videos are true example of multimodal genre as these include not only moving pictures but also language in the form of dialogues and music. Thus the multimodal analysis also takes semiotics in the form of language with it (Lemke, 2003). Music, video-games, films, cartoons, television and computer programming also constitute multimodality in terms of social semiotics (Kress & Leeuwen 2001; Thibault 2005).

Animated videos for educational purposes are becoming popular for young children in the field of education. The benefits of digital storybooks for young children in the field of education are enormous (Chess & Booth, 2014) and the analysis of such stories needs multimodal aspects in them. The video 1 is a short animated video of alphabet song by British Council and its highly recommended video for literacy purposes at preschools. Its time duration is about 2.02 minutes and frame width is 640 and frame height is 360. The video is colorful and attractive for young children. The second video is also an educational video of British Council Pakistan. This video is not musical and is in form of moral story. Its time duration is 2.07 minutes. Although the description of scenery and the colorful setting of the video was attractive but the young children showed quite a different reaction and that is visible in analysis of interactive meaning of the video. The third video is very short, musical and interesting video of British Council Pakistan for young children. Its time duration is 1.36 minutes. As the video is very joyful and brief and the content of the video is also appealing for young minds so the children became excited and because of its innovative style and poetry they imitated it during watching the video. All three videos are analyzed on the basis of three categories of

Ideational, Interpersonal and Textual metafunctions presented by Kress and van Leeuwen in 1996.

Sampling

The present study involves collection of data from two different sources: one is from selected participants and other is through selected short animated videos. This research includes young children at different preschools of district Mandi Bahauddin. The required sample is collected after random sampling technique in which only 3 schools were selected out of total 14 schools with the facility of multimedia. 1 out of 3 schools was selected randomly for proper study of preschoolers' behavior and thus this study is based on fair distribution of participants throughout the district without any discrimination and equal probability of all schools with the facility of multimedia. 40 children in the ages from two to four participated in the study. They watched the videos in groups of four to six children. Screenings are recorded with video cameras and mp3 recorders. This study also kept in mind the importance of parents and presents data interpretation in triangulation. The screenings are combined with the comprehensive interviews of 12 parents which were selected through random sampling technique in order to ensure objectivity of the research. This study includes three educational videos of different kinds in order to explore the meaning making process of the preschoolers. The recordings of the classroom students were further analyzed by detailed interviews of the parents. This triangulation further elaborated the conclusion and it adds authenticity to the present research.

Research Instrument

The present approach employs different types of techniques and instruments, i.e., "observation and interviews" (Kress et al., 2005) to interpret the problems, thoughts and actions more comprehensively. Young children were observed during screening of series of animated films. The teachers and parents were interviewed in order to check the comprehension of young children, their meaning making and communication after watching the animated movies in order to check their understanding and communication after watching these videos. Semi-structured interviews were conducted to gather the opinion and remarks of the parents and teachers about the behavior of the children after watching the videos.

Data Analysis

All video material is transcribed multimodally and analyzed by means of the social semiotic and multimodal framework. Aspects attended to specifically in the transcriptions include verbal interaction, sounds, gaze/eye movements, gestures, position and body motions. Kress & van Leeuwen

(1996) proposed an interactional model and the preschoolers were analyzed on the basis of that model. These videos show that according to the analysis of interactive meanings the young children when they interacted with the videos, their social distance was minimized and because of high modality markers, the attention of the young children was not diverted.

Data Interpretation of Video Screenings

The three videos were shown to the 40 pre-schoolers in different schools with the availability of computers. The students were very excited when the videos were displayed in front of them. The researchers observed the young children during broadcasting of videos and also recorded the expression, gestures, gaze and body movements for further analysis. The teacher only guided the students about videos in order to grasp their meanings effectively. The videos were shown to the young children on three different days in order to analyze each video comprehensively. Thus the interpretation of three videos is presented separately and the concluding remarks include whole commentary on effectiveness of three videos.

Interpretation of Video 1

Video is described in detail on the basis of three metafunctions of multimodal social semiotic analysis of Kress and Van Leeuwen (1996, 2006). The description shows that video 1 is a musical alphabetical poem in which the main character is **Chimpanzee**. The main character is presenting the meanings to the kids in following form:

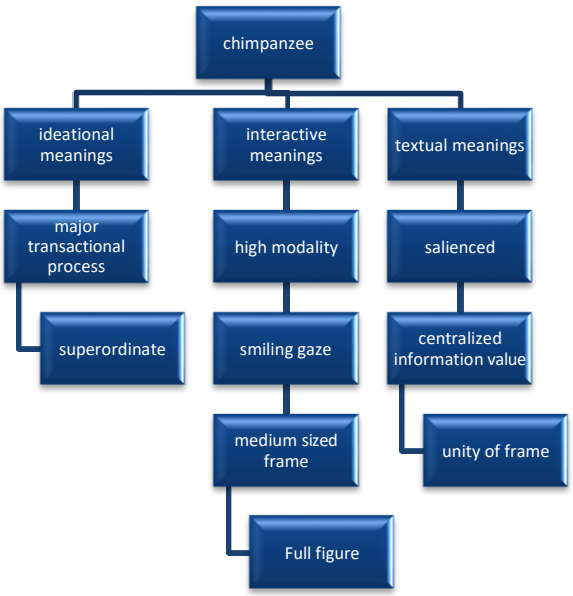

Figure 1. Chimpanzee as Meaning Making Resource

The above mentioned figure is a clear description of how Chimpanzee caught interest of the young children as intended by its producer. The children immediately responded to the information value presented in the video. They expressed their joy by smiling at the main character because of its highly interactive features. Thus it is very clear that the young children are not only attracted towards animated visuals (Attewell & Smith, 2014; Daniyal & Hassan, 2013; Haggerty, 2011; Siegel, 2006) but they also try to imitate the actions, gestures and expressions of the animated characters (Anglin et al., 2010; Malik & Nasir 2014; Mawson, 2013; Waller, 2009; Walsh, 2006). Moreover, the children also tried to behave in the same manner with the musical rhythm as in this video the children read the alphabets in musical form and enjoyed mimicing the chimpanzee.

Interpretation of Video 2

Video 2 is also described on the basis of the multimodal social semiotic analysis of Kress & Van Leeuwen (1996, 2006). This video is a story in digital form in which the change of seasons is depicted through colorful imagery. The main character is **Ali** who has peculiar qualities.

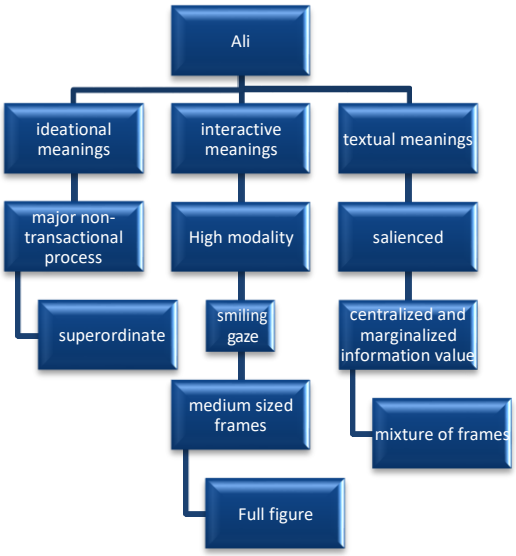

Figure 2. Ali as a Meaning Making Resource

The above tree diagram shows that 2nd video is a bit different from 1st video. Here the description of changing seasons with the change of areas has been given. The video is in narration form and has the longest duration of all the videos. The frames are mixed and come one by one to describe

particular season and Ali is also non-transactional image in the video who just describes the different scenes.

The routine/usual story narration becomes a source of boredom for the young children (Eagle, 2012). Although digital story presentation is eye-catching for young children (Eagle, 2012), yet the presentation of the story along with the musical videos divert the children's attention to musical videos (Waller, 2009). It is also clear from figure that the children do not pay heed to the lengthy description of the seasons and interpret the meanings through the exciting imagery and visuals more than the plain and dull presentation of a story (Mckenney, 2010).

Interpretation of Video 3

The 3rd video is quite simple and the shortest of all. This video has only one performer which presents the action in quite appealing way for young children. After the description of this video according to Kress and Van Leeuwen (1996, 2006), following characteristics are observed:

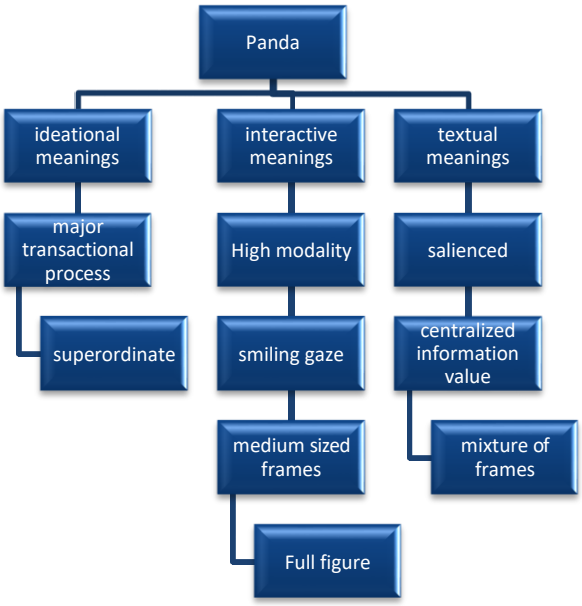

Figure 3. Panda as a Meaning Making Resource

The above description of the video creates an interest for the young viewers and the kids showed excitement to see little panda performing different actions in an interesting way.

This excitement of the main actor "Panda" created an environment of fun and joy in the actions of the kids also and they tried to imitate the actions of the main character while watching the video. The same is obvious

through the images and recordings of the young children where their gestures and expressions show a clear picture of enjoyment, entertainment and thrill. They not only watched the video but they also wanted to behave in the same manner. Moreover, the children also demanded the replay of the same video time and again.

The musical video combines actions and lyrics in such harmonious way that the children instantly comprehended the actions of panda. Therefore, it becomes obvious that a combination of music and actions motivate the young audience to a great extent (Daniyal & Hassan, 2013, Eagle, 2012; Haggerty, 2011) and the children show great inclination to perform the actions of the animated visuals (Anglin et al., 2010; Malik & Nasir 2014; Norris, 2011; Waller, 2009; Walsh, 2006).

They not only paid attention towards these alphabets and actions of panda in video 3 but they also tried to perform in the same manner. They remembered the alphabets and actions because of their movement, speech, music and rhythm and thus it became effective for positive meaning making in the minds of young children. Video 2 proved a bit boring for the young viewers because of its long commentary and consecutive scenery. The children diverted their attention and did not watch the video with so much enthusiasm as they did during the screenings of the other two videos.

Results and Discussion

The interpretation of the observation of the young children during the video screenings and the meaning making process has been described above but the screenings of the videos include the interpretation of some specific aspects of the young children. These aspects are verbal interaction, gaze/ eye movements, sounds, gestures, position and body movements as presented by Kress & van Leeuwen (2006) in their study of moving visuals. Here is graphical presentation of the aspects of 40 children shown in the screenings:

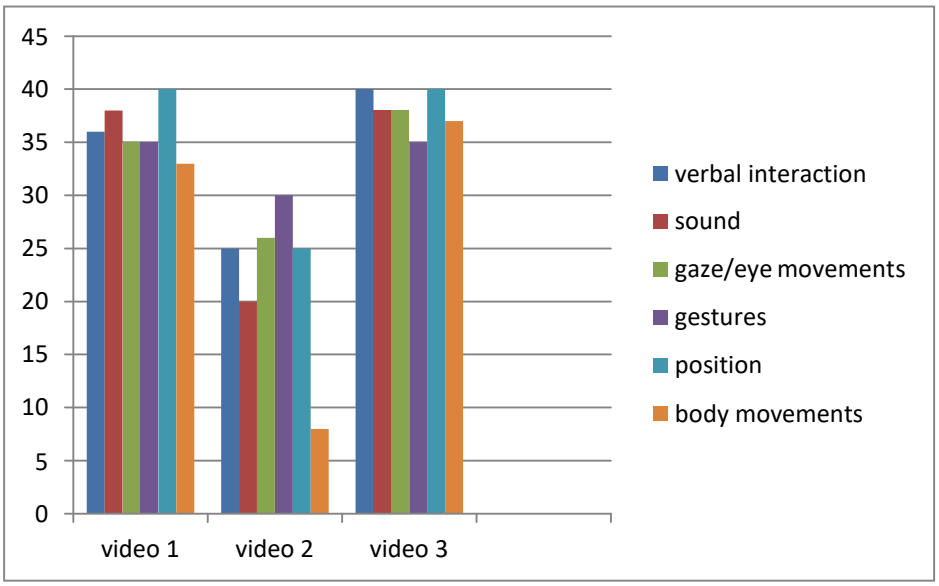

Figure 4. Graphical Representation of Young Children's Involvement in Animated Videos

The above graph shows that the 3rd video appealed almost all of the 40 children and the children expressed themselves with highest level of verbal interaction towards it. The sound appealed 37 students and 37 pre-schoolers attended the video with fixed gaze. The gestures of 35 students were quite involved and they tried to perform the actions through body movements while almost 100% of the students were positioned to watch the video.

The next most effective video was 1st video where 36 students interacted verbally, 38 students responded to its music and sound, 37 students showed gestures and fixed gaze while 100% were positioned on their seats to watch the video.

The 2nd video, as it is obvious from graphical representation, showed low quality interaction as compared to the remaining two videos. Only 25 students showed verbal interaction and were fixed at their positions to watch the video. Only 15 kids showed some body movements and those were also not active movements. 20 children responded to the sound of the videos. Here is an interesting thing to note that despite being bored during the video, 30 kids tried to show different types of gestures and gazed at the video in short intervals. This thing suggests that the children also tried to grasp the difficult text that was marginalized and whenever bubble of text appeared on the screen, they became attentive towards the screen. The rich involvement of almost all the children also made it easy to record the exact

number of preschoolers showing less or no attention towards the videos during the screenings.

Data Interpretation of Parents' Interviews

The parents are an important agency in facilitating and observing Young Children's learning at home. No child can hide his/her feelings and actions in front of the parents. Thus no research can be completed without taking into account the observations and suggestions of the parents about young children. This study also takes care of the importance of the parents and presents data interpretation in triangulation. The screenings are combined with the comprehensive interviews of 12 parents which were selected on the basis of random sampling technique in order to ensure objectivity of the research. The interviews were recorded and the researchers also took notes. The transcription of the interviews provides detailed interpretation of the parents' observation of their young children after screenings of the three videos at school.

The interactive features which were discussed in interviews can be categorized into four types based on their data presentation and interaction with the preschoolers. These are music, actions, text and characters. The parents gave different views about different factors which are discussed one by one.

Music

Kress & Leeuwen (2006) stated that interactive meanings of the visuals are communicated through multiple modality markers. Out of these modality markers, the representations of texts in the form of motion, dance and music is an important feature. Rhythmic contents in the visuals make these visuals attractive for young children and they become more interested in the information present in visuals (Kieff & Casbergue, 2000).

The parents also noticed the effectiveness of music for educational purposes at preschool level. The parents' observation about music is transcribed in following words:

The children learn differently after watching different videos. The learning from/trough musical videos is at peak. The children take musical alphabets and rhythmic actions with utmost attention and they react towards the music by performing the actions of the characters in the videos. They tried to pronounce the alphabets in musical form and also jumped in the manner of panda time and again. They performed alphabets lyrics most of the time. The actions of hopping and jumping in rhythmic form were so frequent that they performed the same rhythmic actions even at breakfast table. Thus the learning of the new terms by musical rhythm was imprinted on the minds of the children after watching these in actions form on moving visuals.

Actions

Kress & Leeuwen (1996, 2006) described the actions of moving visuals through the representations of image, gaze and facial expressions. All these actions are represented on the scale of high modality as presented by Kress and Leeuwen (1996, 2006). They also opined that the actions that involved high modality markers are of greater significance for young children. The actions which were present in the videos were analyzed and observed by the parents of the preschoolers. The parents expressed their opinion about performing the actions of the characters in following words:

> The children are fond of watching cartoons at home and they also take interest in watching musical TV commercials designed for kids. The children also imitate the different characters of cartoons and they copy those characters with the siblings. As they already have interest in cartoons so when the three videos were shown to them, they were highly excited after coming back to home. The children imitated the actions of "Chimpanzee, Ali and Panda" which were shown to them in their classrooms. The Children repeated the alphabets in the same way as "Chimpanzee" does in the videos. They also performed the actions of "Panda" in the third video. They told about two or three seasons which were present in the second video.

Texts

The textual meanings are presented by Kress & Leeuwen (1996, 2006) on the basis of salience, framing and information value present in the visual images. The parents opine about the interpretation of text through the videos differently in the following words:

> The children at young age do not pay attention to the comprehension of texts or deep under lying meanings of videos. They perceive only what is performed in front of their eyes. They try to copy the performances more than they understand the performances. Out of three videos, the children are least interested in the texts presented in the second video. Shy children tried to memorize the texts of the visuals rather than performing with the actions. But one thing is clear that the children learn fast by watching the things online rather than reading on picture books. Long videos were not so attractive for the kids and they could not remember the video text even after watching it many times at school.

Characters

The characters of the visuals are represented as two types: subjective and objective. The characters are the life line of the visuals and play a significant role in videos (Kress & Leeuwen, 2006). Parents view the characters of the videos as under:

> The children learn more from watching the things and visual online and try to perform it in their lives. After the screenings of the video, the children uttered the alphabets in rhythmic form and they forget to read it normally. They think themselves in a brave new world and try to act like the characters present in the videos. Thus the characters become the source of inspiration and sometimes the children think of themselves as one of those characters present in the videos. The involvement of the children with the protagonists of the videos is of great interest.

The above transcription of the interviews reveals the actions and communication of the kids after watching the animated videos and their meaning making process as well. The learning and meaning making of the young children through the interaction of three videos is graphically represented in the following table:

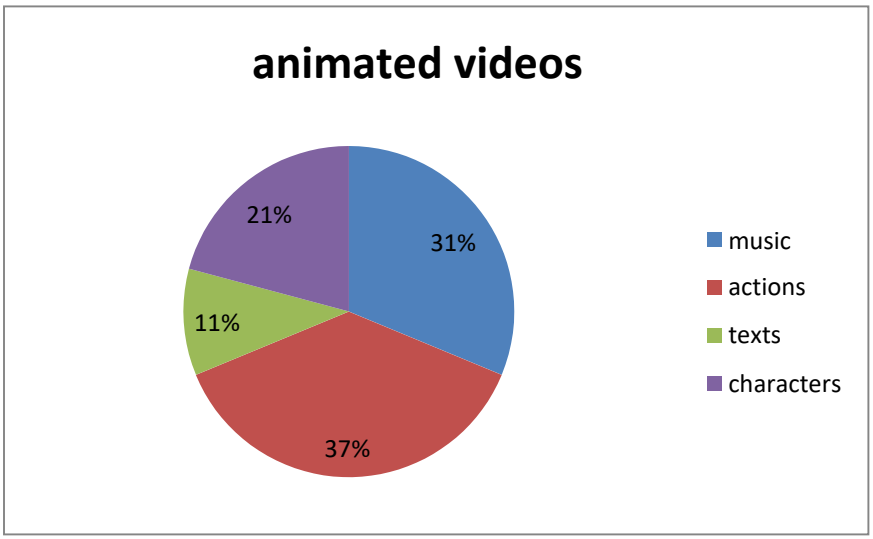

Figure 5.Graphical Representation of Parents' Response to Animated Videos

The above table shows that 37% parents view action based animated videos as best for young children's learning. Music takes the next position as it involves the children effectively according to the 31% of the

parents. 21% parents give importance to the characters for meaning making process and only 11% vote for the texts. Therefore, it is clear that the actions and the music for the young children make their learning speedy and effective (Eagle, 2012; Genc, 2014; Merchant, 2015; Skaar, 2007; Nikken, 2014).

Conclusion

Animated videos are quite diverse in nature and provide a wide range of implications and points of study. When these videos are applied for literacy purposes, they give exemplary results especially for young children. In the present study it is argued that when the question of literacy and children's meaning making comes, it is necessary to include versatile semiotic modes as young children are more attracted towards animated visuals (lifelike objects) than written texts and picture books. Walker, Sproull, & Subramani (1994) advocated this notion in their studies. The researchers also observed that children become excited to watch the visuals moving and acting in front of their eyes.

Children derive multiple meanings through their interaction of moving visuals used for literacy purposes in pre-school setting. The derivation of meaning by young children has many characteristics:

a. The children learn more by the musical videos.
b. The children pay more attention to the short and concise videos.
c. Long videos distract attention of children and they start to feel boredom after sometime.
d. Colorful images and scenes attract children more towards the videos.
e. High modality markers like framing, size of the image, expressions and gestures of the image also play crucial role in meaning making process of young children.
f. Children pay more attention towards the actions of the performer than that of text.
g. Long videos compiled in the form of narration have less attraction and the young children do not learn much as a result.
h. Children learn different words and actions like alphabets, names of seasons and actions like jumping and hopping and use these words with actions in their social settings like school and home.

Children also communicate these meaning after receiving them through watching the animated videos. The children try to imitate the actions of moving visuals and perform in the same manner as the performers in the videos do (Daniyal & Hassan, 2013; Habib & Soliman, 2015; & Hassan et al., 2015). The researchers in this study also found that young children after learning and making meaning through animated video try to communicate

and perform the actions through verbal interaction, gaze, body movements and gestures.

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