

Psychological Impact of Cartoon Animation on Children

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Abstract— Factors those are responsible to carve children’s way of developing their thinking mostly in their surrounding where they grow up. These contain daily routine events, unforgettable experiences and peak feelings. Now adays children are highly influenced by cartoon characters and they become one of the important part of their life. Children are following their favorite cartoon character in their daily routine. According to studies, an average child with a facility of a TV and a satellite connection at his home watches approximately 18,000 hours of television from kindergarten to high school graduation. In this research paper the study focuses on children between the age of 4-11 years of Jalandhar city as sample. Study concluded that cartoon series especially Chotta Beem impact the children behavior as well as their language. Today cartoons are playing vital role in children’s life. In the study the main focus is to find the effect of cartoon characters both in negative and positive way and how they create impact on school going children. It is symbolic change comes in children that they prefer cartoon instead of physical games.

Keywords: Animation, Behavior, Cartoon, School going children, Television, Internet, Mobiles, Social Life

I. INTRODUCTION

Animation is the process of creating the illusion by sequence of static images that are differ from each other. It is based on 2D and 3D. 2D means two dimensional and doesn’t have a depth. In other words we can say that character looks flat without complete details as compare to 3D. In 2D animation there are many mediums to create animation such as Cel Animation, Clay Animation, Sand Animation, Cutout Animation, Puppet Animation etc.

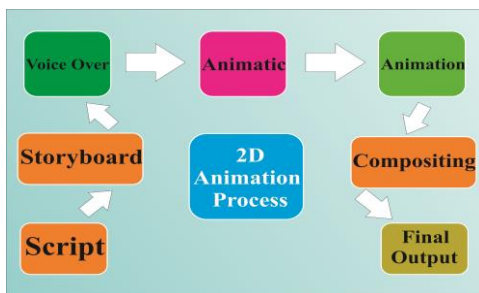


Figure 1. Process of 2D Animation Work

3D means three dimension and have complete detail in the character. In 3D animation we can model the character then use rigging, texturing, lighting, and animate to depict it realistic. In this time 3D animation is more demandable as compare to 2D in industry. Children also prefer to watch 3D animated shows and movies.

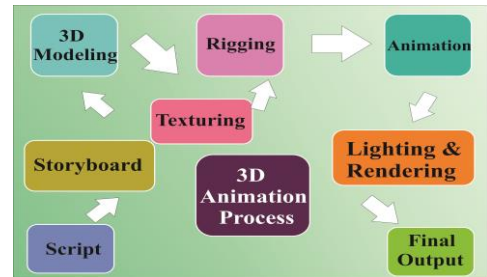


Figure 2. 3D Animation Work Process



Figure 3. Illustrating difference between 2D and 3D [1]

A. Computer Animation

Computer animation is the art of creating movement with the help of images on frames per second. There are two formats used for creating animation and they are - NTSC and PAL .NTSC means National Television System Committee and PAL is Phase Alternating Line Basically it is the difference between frames per second used by televisions in different parts of the world. In USA “NTSC” format in which 30fps used. In some part of Asia such as India used PAL format in which 25fps used.

	NTSC	PAL
Abbreviation	National System Committee	Phase Alternation by Line
Lines	525	625
Field	60	50
Frames per Second	30	25

Figure 4. Differentiate between NTSC and PAL [2]

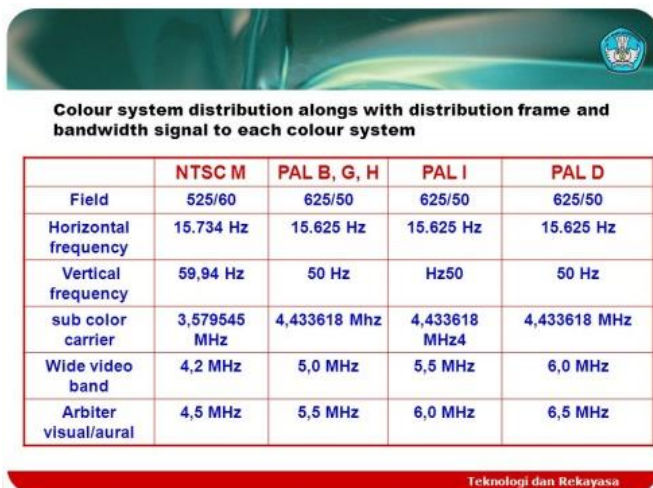


Figure 5. Color system and Distribution along with frame and bandwidth to each color system of NTSC and PAL[3]

It is a subfield of computer graphics and animation. Mostly it is created by 3D computer graphics along with it 2D computer graphics are still used in industry. Sometimes the target of the animation is vary with many medium, such as film. It is also referred to as Computer generated imagery (CGI) or Computer Generated Character (CGC) especially when used in movies.

Computer animation influences family functioning in varied ways. Learning and education, leisure and entertainment, household routines, work from home, personal development, extended family communication, e-commerce and civic involvement are possible affected domains. Computer Animation has shaped our culture and social system.

Cartoon animation has great impact on children's mind, because all children love to watch cartoon. They like to watch the cartoon on television rather than to do any physical activity. This study is based on the objective to assess the effect of animation and videos on behavior of the school going children between age group of 4-11 year.

Cartoons have been a part of cinema history from the time, the first motion pictures were made in the late 1800s. A cartoon is a movie made by using animation instead of live actors, especially a humorous film intended for children.

In the findings, it observed that TV Cartoons and animated movies are one of the most entertaining activity for the kids. "Felix the Cat" the first ever cartoon icon, which started its journey in 1920s. Then Donald Duck, Mickey Mouse and Pluto were the cartoon character which is being introduced by Disney Brother's cartoon studios.

Cartoons are playing a vital role in changing behavior of the growing children. School going children entertain themselves by watching cartoons in spite of playing physical games. They involve themselves so much and starts behaving like their favorite hero's. Kids adopt their way of talking, walking, dressing and eating. Channels such as POGO, Cartoon Network, Nickelodeon, Hungama are some of the favorite channels of children to watch the shows. Ben Ten, Doremon, Sinchen, Chotta Bhim, Ninja hattori and Mr. Bean are the most favorite cartoons of the children's.

B. Cartoon Background:

In 1956, Animator Clair Weeks of Disney Studios, had worked on Bambi, was invited to Films Division of India in Mumbai to inaugurate the country's first animation studio as

part of the American technical co-operation mission. The first production was a film called The Banyan Deer (1957). From the late 1950's to the 1990's, there were two famous Indian animators were Ram Mohan and Bhimsain Khurana, they have been known as "The father of Indian Animation". Ram Mohan was the person who started animation in India, while Bhimsain Khurana was the first to capture widespread popularity among Indian audiences, primarily through his musical talent. Another landmark animated film from Films Division in India is Ek Anek Aur Ekta, a short traditionally animated film based on educational topic, released in 1974. The film is presented to teach children the value of unity, broadcast by, Doordarshan. The first Indian animated television series was Ghayab Aaya, which aired in 1986 and was directed by Suddhasattwa Basu. The first Indian 3D and VFX were done for the television series Captain Vyom by animation. The first Indian animated movie was "Roadside Romeo" which was a joint venture of Yash Raj Films and the Indian division of the Walt Disney Company. It was written and directed by Jugal Hansraj.

Some other facts of Indian animation history:

- Dadasaheb Phalke, Father of Indian Cinema, is also known as first Indian animator. In 1914, he made an animation film about the growth of a peapod into a plant through stop-motion animation.
- A Disney Studios animator named "Clair Weeks", was invited by the Films Division of India in 1956 to set up & train Indian animators for the first ever Indian animation studios.
- A Japanese film maker Sako & Ram Mohan made an epic animated movie 'Ramayana- The Legend of Prince Rama' which received outstanding reviews abroad.

The purpose to assess the study of animation on school going children between the age group of 4-11 year that how their behavior get influence by cartoons and animated movies. Now a days the role of communicator has become very important because the world is experiencing communication revolt and communication explosion. One's ability to impact others is highly linked with the capability to communicate his/her ideas to others. Computer animation is one of the medium to influence people in varied ways such as learning and education, leisure and entertainment, household routines, work from home, personal development- etc. are possible affected domains. Computer Animation has extremely influenced our culture and social system. The purpose of present study is to examine what we give children through computer animation in terms of visual media. One cannot talk about media without including the discussion of how children's communicative activities effected by animation and cartoon characters.

C. Effects of Animation on Indian Children:

According to study, today children below the age of 15 years represent almost half of the country's population. After the age of 10 or 11 that mostly children begin to develop their social values and habits. Above this age, the children's personality, their code of ethics, and values – all these are influence their social life and their environment. Visual media is one of the media which has the power to reach such a vast number of people at one time can help tremendously in strengthen the development of desirable values and habits in our country's children.

II. LITERATURE REVIEW

Cartoon is based on realistic and semi realistic drawing form, knowing for satire, caricature or humor of work either it is two dimensional or three dimensional of visual art work. Mickey Mouse, Donald Duck, Tom & Jerry are some of the famous examples of two dimensional characters and Bheem, Doremon, Shinchen are based on three dimensional. First step is to draw storyboard which helps to visualize initial stage of story then starts the production work. Storyboard helps to give basic information that how to look our final work and also give guidance to artists to complete the work.

After study there is no doubt that whenever children have free time they like to watch television in which they prefer to watch cartoon channels. Hassan & Daniyal (2013) [4] studied after watching cartoons examined the effects on children's behavior. As we know Cartoon Channel is the favorite one of children to watch cartoon shows. But during the study one of the important factor comes in front of us that it also promotes violence. Violence becomes part of today's animation. They like to follow their favorite cartoon characters and force their parents to buy those clothes or accessories similar to their favorite characters.

In this modern era, TV has a strong impact on the entire audience, including all age groups. Children affected by television dramas and cartoons too often presented with different linguistic terms (Gokulsing, 2009) [5].

Siripen (2009) [6] Children love to watch cartoons because cartoons have a great impact on the mind. Author media close and easy to get these issues are children 2D cartoon animation, tried to alleviate. 2D cartoon animation in four primary schools in Thailand, offered a sample of 200 students. Goal is to create a good habit of positive thinking in social life. This short-term aggressive children in mind, not a sign of decline or trends, and has changed the long-term potential.

Soumya et.al (2014)[7] Perception of parents about children watching cartoons. The study was organized in two famous schools and focuses on various aspects of Assam Dibrugarh district. This was to investigate the effect of cartoons as distinguished by the parents of the children and also try out the various problems faced by children in the growth phase. To survey on this, Discriptive method used in which 140 parents were obtained from census data. Auto questionnaire developed for this study was accepted. The findings of this study, the majority of children of the respondents (72.1%) 65.7% of the participants and 74 children's cartoon show, that approximately 3% of parents feel that if children are watching television every day get affected. The study revealed that there is an intense relationship between participant's children's routine of imitating cartoon characters.

According to study a cartoon can become much dangerous than any other experience. It can confuse the child with what he/she experiences in real life, cause contradicts with parents opinion. Cartoon TV series has great influence over the children. A cartoon has become important part of the children attention and consumes more time than any other activity the child performs. In modern time where the parents are busy with their work, much less time to spend with their children. So mostly this time is passed in front of a cartoons (Habib and Soliman, 2015) [8].

Negative content in cartoons, could lead a child to concern his/her raising, way to thinking, life style that he grown up according to his religion (Aluja-Fabregat and Torrubia-Beltri,

1998 and Gunter, 1985) [9]. But we cannot say that cartoon has only negative impact on children. They are the central focus of many children's lives that parents also prefer to cartoons keep their children engage while they are busy with their office or home schedules. As we know life becomes so much hectic that parents don't have much time to spend with their children.

A well organized cartoonish scenario could teach a child how to be a leader, how to be a person and how to analyze problems in a scientific manner. Cartoon teaches a child about dangers of the surrounding, fire danger of electricity, crossing the streets also how to act in the while a wound (Jensen, 1998 and Bjorkqvist and Lagerspctz, 1985) [10].

Gökçearsan (2010) [11] studied the Effect of Cartoon Movies on Children's Gender Development in which he studied that funny cartoon films can considered as aspects of good resources for children education. Sometimes cartoon character images show brief messages and it includes several drawbacks. One of these problems is related to the gender of the characters. Characters in animated films, women, men, animals, and inanimate objects. While the roles of gender characters (male and female) represent their behavior based on society, animal and inanimate characters having human characteristics such as walking or talking on two legs. These characters have their own importance in the films with human-like features.

When children are watching cartoons there is a learning process going on throughout that time. Whatever children while watching cartoons, they starts influencing their mode of socialize conduct with other children and also with the world (Baran and Davis, 2003) [12].

Multimedia technology is probably a one of the most exciting innovations in the information age in modern era. The swift growth of multimedia technologies in industry over the last decade has brought about fundamental changes in computing, entertainment, and education (Norhayati & Siew 2004) [13].

Ke's study aimed to find the effect of educational computer games on the 4th and 5th graders' to learn mathematics. In this we can use computerized games as a teaching and learning tool for students. It helps to make topic easier and interesting. To achieve this goal the study tested the effect of educational games on cognitive math achievement, meta-cognitive awareness, and positive attitudes toward math learning. Results indicates that computer games in educational field can help to attract students towards learning math and make it entertaining, but also it has no effects on cognitive math achievement, and meta-cognitive awareness (Ke, 2008) [14].

III. SCOPE OF ANIMATION IN INDIA

There is an ample scope of animation in India especially in Punjab. Today there is a less market of this field. The reason behind is lack of awareness and financial support. Following are some strengths, weakness and opportunities of 3D animation in India.

Strength

- Rich historical heritage of India
- Large English Speaking base
- Low Production cost than abroad
- Skillful Artists

Weakness

- Less audience of Animated Movies rather than other bollywood movies.
- Limited market to showcase mythological and classical work.
- Less number of Studios with latest equipments as compare to other countries such as America, Japan, China etc.
- Unorganized area

Opportunity

There is a good opportunity for this new field to grow up such as interest of Domestic market, Games, Advertisements, Online education material, Specific fields such as Legal, Medical, Defence, Architecture And so on where people of these areas used animation for their work.

IV. METHODOLOGY

With the main objectives keep in mind, the researcher has followed a survey method. The researcher has studied the content and characteristics of 2D and 3D animation on children in visual media especially in TV, Internet and Film. Thus the questionnaire has designed to keep the main objectives in mind. With scientifically developed questionnaire, the researcher has conducted a survey among the children between the age group of 4 to 11.

A. Research Methods

Study design:

It was a survey based descriptive study carried out samples between the age group of 4-11 years.

Sample size:

In the study 100 children (both male and female) were randomly selected from the area of Ladhewali, Rail Vihar, Surya Enclave, Model Town, Garha of Jalandhar city.

Data Collection:

For the purpose of collection of data researcher used questionnaire method as a tool.

B. Limitation

- In area of Jalandhar City, the animation industry is in its initial stage of development. So the researcher was concentrating mainly in city only.
- The researcher could not able to give sufficient representation to rural children since animation is not very popular in rural area due to the lackness of knowledge.

V. SURVEY& RESULTS

Q1. Which of the children’s favorite cartoon TV show?

- A. Shin Chen B. Doremon C. Chotta Bheem D. None of them



Figure 6. shows that nearly 50% of the children favor Shin Chen among the other options.

Q2. How much hours children watch cartoons in daily routine?

- A. 1 - 2 hours B. 2 - 3 hours C. 3 - 4 hours D. More than 4 hours



Figure 7. shows that more than 40% of children watch more than 4 hours TV Series. It shows children love to watch Cartoon Series.

Q3. Do you think cartoon characters have psychological effects on children?

- A. Yes B. No C. May be D. Don’t Know



Figure 8. shows that nearly 62% children have psychologically effect on them after watching cartoons.

Q4. Do Children have effect on their personality after watching cartoons?

- A. Yes B. No C. Don’t know



Figure 9. shows that 55% children have effect on their personality. They like to adopt and behave like their favorite cartoon character. They prefer to buy clothes and accessories related to their favorite character.

Q5. Do you think that children change their spoken language or accent after watching the cartoon?
 A. Yes B. No C. May be



Figure12. indicates that near about 69% of school going children prefer to watch cartoon shows instead of playing Games.

Q8. Do you think cartoons help the parents to busy the child in itself while they are busy in their hectic schedule?
 A. Yes B. No C. Sometime

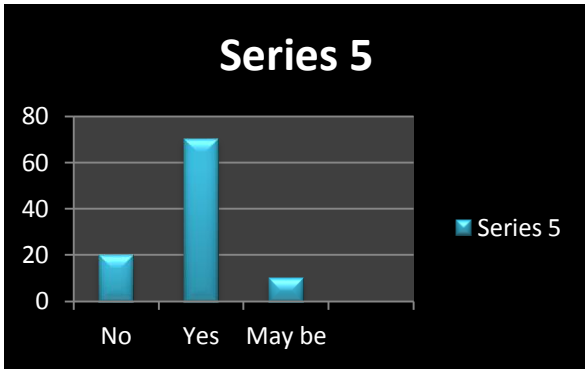


Figure 10. shows near about 70% of the children are changed their language and accent after watching cartoons because children get affected with the cartoon character and start following them in every possible way like thinking, speaking, body movements.

Q6. Do you think Cartoons help to increase the learning capacity of children?
 A. Yes B. No

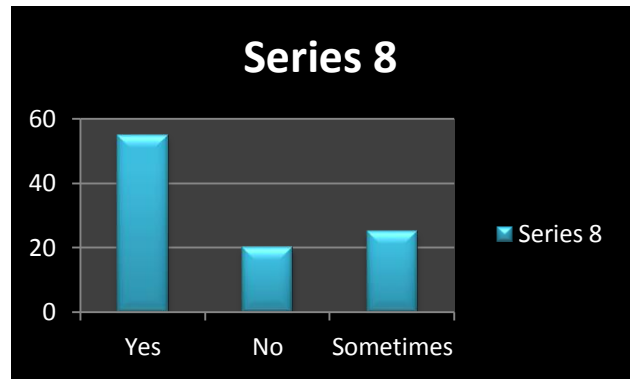


Figure 13. indicates that 55 % school going children become aggressive after watching cartoons.

Q 10. Do you think a well organized cartoonish scenario could help to teach a child to become a good person/child?
 A. Yes B. No C. May be

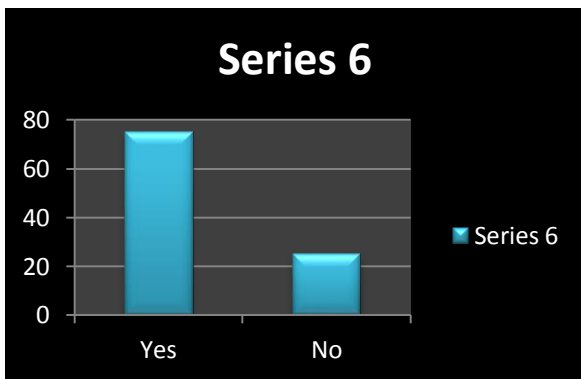


Figure11. shows that nearly 75% of the Cartoons have contribution to increase the learning capacity of school going children. The reason is it helps to make matter easy to understand through their act.

Q7. Do children prefer to watch cartoon shows instead of playing outdoor games?
 A. Yes B. No C. Don't Know

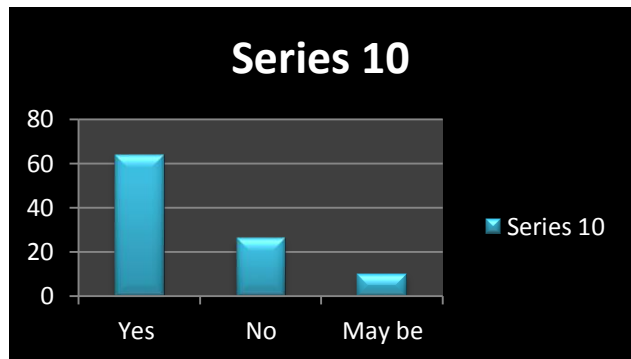


Figure 14. shows that about 64% think a well organized cartoonish scenario could help to teach a child to become a good person/child.

A. Discussion:

- In the above study, shows that in the modern era most of the families have both of the parents working due to which they don't have much time to spend with their child.
- Mostly parents are working and have less time to spend with the children; they prefer that their children watch cartoon network and get busy in it.
- Kids are highly attracted towards their favorite cartoon character's clothing, accessories while they purchase

their clothes as well as other accessories. They also force their parents to buy clothes of their favorite character and are attracted towards the stores which offer clothes and accessories of their favorite characters.

- Parents also say that children are so much influenced by their cartoon characters that they start adopting their character's language and start speaking like that.

- According to study students prefer to watch cartoon shows rather than playing outside games. It affects their physical activities and makes them weak and lazy.

- To watch cartoons they also create bad effects on children's mind. During the survey it observed that watching more cartoons in which fight and crime related scenes telecast, children becomes more aggressive.

- Cartoons are not only for entertainment but also beneficial in education. There are so many topics that are difficult for students to understand but if there is animation or cartoons used in their studies it will become more easier for children to understand properly. Because of visualization with proper details and graphics, the tough topics become easy and interesting. Along with this, the topic will memorable for long time. In other words we can say it helps to increase the learning capacity.

VI. CONCLUSION

After the study it observed that in this modern era children are highly convinced by the cartoon characters. They prefer to pay attention to cartoons instead of other physical games and activities. In the study it found that characters have both negative and positive effect on children. They are very easily influenced by each and every activity of cartoons. In Negative way, they become easily aggressive after watching shows, prefer to sit inside in home to watch television instead of playing physical games. This is reason children are not growing properly and their mind are working according to their favorite characters. Some of the cartoon programmes show violence and fights., During the study it is noticed that children are also adopting violence and observed that they often arguing and fighting with their classmates ,friends and also with their family members. At last we concluded that parents are not satisfied by such kind of cartoon series which shows violence. While doing the survey, a very crucial factor comes in front of us that family member gives less time to children therefore children mostly spend their time to watch cartoon shows. Age between 4-11 years is growing age of children, they are very crazy and serious about cartoons, it shows they are learning a lot from these cartoons. In fact, the survey shows that majority of children have psychological impact by cartoons.

Cartoons are not only changing their behavior towards aggressiveness but also changing their language and language plays the most important role in any culture. Survey shows that children mostly watch cartoon as a source of entertainment. But it also plays pivotal role in education,, learning manners and etiquettes .For example Doremon, it is best example in which Doremon teaches manners such as how to be good friend, good child of their parent. He also teaches how to use technology for their benefits and others rather than trouble others. He teaches how to help needy person.

Animation and graphics help the children to understand the tough topics in very easy manners because visualization is the

best way of make tough topic to easy. It observed that teacher or parents should involve some graphical or animated figures along with their theoretical concept because it attracts children and make topic interesting. It is the best way to keep information in their mind for a long time.

At last if the animation can be used with proper scenario then it is very helpful to convey messages to audience with proper manner. Animation can not only for children's enjoyment but also for other discipline such as Medical, Legal, Defence, Architecture, Education and so on.

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popular culture, radical changes in the culture, it should be understood being presented.