

## MEASURING THE EFFECT OF TELEVISION ON YOUTH: SOFTWARE VISUALIZATION APPROACH

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### **Abstract**

*One of the major problem which youth of nowadays are facing are exposure to television viewing which is wasting a lot of their time needed to do some other thing such as reading and development of their social behaviour and cultural integrity. The objectives of this paper are to examine the impact of television viewing in adolescents using software visualization pattern. This paper is developed based on data source collected from questionnaires and Statistical Package for Social Sciences was used to analyze the questionnaire. The results were presented in a 2-Dimensional graphical representation using software visualization approach. It is observed that excessive use of electronic media (majorly the Television) among youth is resulting in conventional diminishing in the cultural and traditional virtues of the developing years of innocence grooming.*

**Keywords:** Visualization, Television, Adolescent, Measurement.

### **Introduction**

Software is invisible, disappearing into files on disks. According to Stephen & Thomas, (2013), the invisible characteristic of software mitigates programmer's productivity by trouncing system intricacy, especially for large group-oriented projects. Visualization is also believed to assist software developers manage this convolution and thereby augment programmer output.

Software visualization or software visualisation refers to the visualization of information of and related to software systems -either the [architecture](#) of its [source code](#) or metrics of their [runtime behavior](#)- and their development process by means of static, interactive or animated 2-Dimensional or 3-Dimensional visual representations of their structure, execution, behaviour, and evolution. (Stephan, 2015).

The debacle of television as medium for social change is still an emerging, moving target for researchers across the globe; although there is rich oeuvre of both nugget and maverick research works available in this arena. The success tales of television as a medium for social change has negated the confabulations that television is basically an entertainment platform that is hostile to thoughts. Devadas & Ravi, (2013) also opined that television is an adaptive medium and can follow different approaches when efficaciously and judiciously used and will definitely contribute sustained nay-exacerbated development. Present study undertaken makes an effort to trace social impact of television on youth empirically in the Nigerian States.

When television was introduced in Nigeria in the late 1950's, one of the noble goals set by the decision makers was to act as a catalyst for social change. Godwin and Schramm, (2010) have promulgated that Television is indeed an effective educational medium in the modern society. They reported that by telecasting effective educational programmes which strengthens the curriculum, television can become an effective medium of education. Stainfield, (2012) has analyzed the relationship between Television medium and the social behaviour of viewers. He has advised that it is necessary that television should create meaningful attitude and behaviour thereby stopping taking an unnecessary horse ride on viewers. Bandura, (2014) has deeply analyzed the techniques of modern mass media in enhancing the learning capacity of the people. Bandura, (2014) discussed about the possibilities of effective usage of television to disseminate meaningful both formal and informal education to the public. Agarwal, (2015) has studied that satellite communication is useful for the growth of youth. Agarwal, (2015) stated many advices for the effective use of for the personality development of adolescent and all-round development. Ranjith (2007), analyzed the contribution of television for the empowerment of abused or oppressed sections of Indian society. He says that without radical changes in the social structure empowerment of abused or oppressed cannot be achieved by any mass medium. He has put forth many advises in exploiting television as a tool for the empowerment of abused or oppressed in future.

### **Literature Review**

In recent times, the issue of globalization as evident in global mass communication has enhanced information around the world. Yet, it has also brought about increased inequality, individual alienation, cultural and social tumult. The phenomenon is also seen to be leading to the replacement of traditional structures such as the family, religion and the community with ones supposedly more relevant to the modern world. (McQuail, 2008).

Igbinedion, (2012) remarks: there seems to be almost blind faith in the new modern and technological solutions to problems and a subsequent devaluing of traditional values and structures. No matter how valuable they have proved to be over centuries, people are surprisingly quick to project their indigenous traditions and cultural values as reactionary, static, irrelevant to their lives.

However, some argues that there is meditating factors which limits the influence of countries. Such factors are selecting, personality, society.

In the cultivation hypothesis, hypothesized that Television cultivates perceptions of reality on the basis of which people interpret and understand. Society people are therefore influenced into corresponding or acceptable behaviors towards the rest of the society (Gerbner et al 2014). Television cultivates and mainstream viewers. Where mainstreaming is the process by which Television brings various group into the mainstream of values of a dominant culture.

Gerbner, (2014) also argues that heavy Television viewing within various sub-groups develop similar outlook which are different from other outlook of lighter viewing.

The cultivation hypothesis further posits that contents exert a continuous pressure on viewers' mind which is influencing the way they see the world.

Johnson, (2014) and Gupta, (2012), emphasized the dialectical native of hegemony showing how Television programs represents a method adopted by the dominant classes in society of "making sense of the world around us" and of which method McQuail, (2008) call it Television reality.

Western countries Television news and programming provide the social text and context for images of cultures, political and economic hegemony. These Television programmes have been internalized for cultural and material success in Europe and America. The acceptance of general Western Television programmes therefore, represents a consensual acceptance of these alternating images (cultural dependency).

Cultural dependency is expressed in terms of the cultural values of the audience. The literature speaks eloquently to this issue.

Also, the soap operas in terms of image that tend to encourage cultural, political and economic hegemony are generally low in art, high in sex and sell (Igbinedion (2012)).

Therefore, it is our view that cultural hegemony is a tool for cultural accumulation of the Western cultures by the Nigerian youths.

From the reviewed literature, it could be deduced that the extent to which Nigerian youths adopt symbolic behaviours, attitudes, belief and patterns that are perceived to be consistent with Western culture is the extent to which Western culture are exported to and adopted by Nigerian cultures. A study by Aliu, cited in Igbinedion (2012) found that Nigerian university students will tend to prefer foreign culture not just for pleasure, but that the culture plays an important role in influencing the youths in the way they behave, their dressing style, speaking and thinking etc. This study led him to conclude that Nigerian university students have become a set of youths who think more of the transient and canal ideas of the foreign cultures than their own culture.

## **Material and method**

### **Purpose and objective of the study:**

This is an analytic study on social impact of Television on youth in Ilorin.

### **Statement of Hypothesis**

For the purpose and objective of this study, the following hypotheses are formulated;

#### **Hypothesis 1**

**Alternative Hypothesis [H<sub>0</sub>]:-** *Social impact of Television on youth significantly varies with average time spent on watching daily.*

**Null Hypothesis [H<sub>1</sub>]:-** *Social impact of Television on youth does not significantly varies with average time spent on watching daily.*

#### **Hypothesis 2**

**Alternative Hypothesis [H<sub>0</sub>]:-** *Young viewers of Television tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers.*

**Null hypothesis [H<sub>1</sub>]:-** *Young viewers of Television tend not to show greater degree of acceptance to social and cultural abnormalities than other categories of viewers.*

### **Source of Data**

The main source of data is through the administration of questionnaires to youths in schools within Ilorin metropolis

The software used in carrying out this research visualization is the Statistical Package for Social Sciences.

### **Sampling procedure:**

A systematic stratified sampling method is employed in this study. A total of 400 samples were selected for study from 8 higher institutions in Ilorin metropolis, chosen for the study. i.e. 50 samples from each school. Since the youth in this study are between the age group 15 to 35, they were further categorized in to four groups i.e. 15-20, 20-25, 25-30 and 30-35.

### **Method of Data Analysis:**

For proper analysis of the two hypotheses in this study, descriptive and inferential statistical tools of measuring data were used in analyzing the collected data. The use of these forms of

statistical method to test the validity and reliability of data cannot be done without appropriate coding.

Therefore, using coding scheme for responses to questions on the questionnaire, the responses were assembled in what is known as the coding sheet.

Frequency and percentages were used to describe data to see the general characteristics of the sample studied and to answer research questions.

The derivation of chi-square formula. Chi-square ( $\chi^2$ ) distribution model is the sum of square of a normal standard distribution variables where the variance of the normal distributed values of the observed value that are associated with the variable. That is,

$$z = N(0, 1)$$

where  $z = (x - u)$ .

Therefore

$$\chi^2 = \sum \frac{[(O-E)^2]}{E}$$

where O = observed values;

E = Expected values.

### Results and Discussion:

After obtaining the data from the respondents, the data were coded and tables and cross tables were prepared. Percentages and others appropriate statistical tests were used in order to examine the relationship between the variables. The outcomes of the study are discussed below.

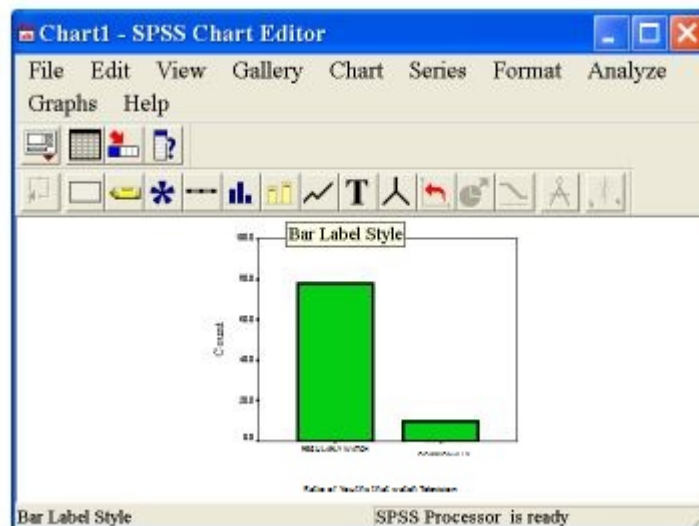
### Hypotheses Testing

The chi – square ( $\chi^2$ )n contingency table analysis was use to test this hypothesis. This is because, it involves more than one variables.

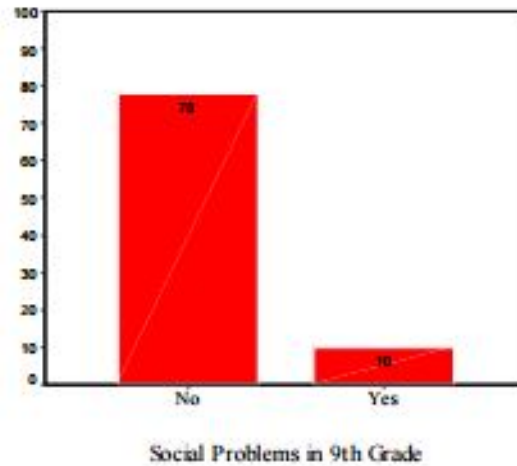
### Hypothesis one

This first hypotheses examines the relationship between *Social impact of Television on youth does not significantly varies with average time spent on watching daily*.

The researcher selected 69 respondents that responded accurately amongst others saying that the identify with the Social impact of Television on youth significantly varies with average time spent on watching daily while 16 say they do not identify the mutual relationship among the time spent on the television by youth with respect to how its affect them and 35 of the remaining respondents gave no opinion.



Sources: Field Survey; 2015



Sources: Field Survey; 2015

Step I =  $H_i$ 

*Young viewers of Television tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers.*

$H_0$  = *Young viewers of Television does not tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers.*

Step II = The statistical test is  $(\chi^2) = X^2 = \sum \frac{[(O-E)^2]}{E}$ ,

where O = Observed frequencies;  
E = Expected frequencies;  
 $\sum$  = Summation.

Step III = The level of significance is 5% = 0.05

Step IV = The degree of freedom is given by (K-1),

where K = 3: 3-1= 2;

Step V = the critical value is given as 5.991

Step VI = Computing the test statistics using table 12

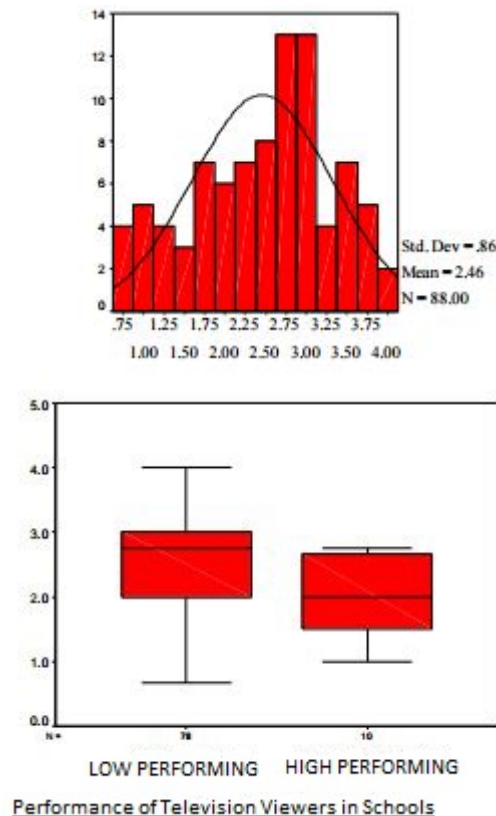
To get (expected frequencies)

Total frequencies: No of option i.e.  $E = \frac{120}{3} = 40$ .Step VII = Comparing the test statistics with critical value of  $(\chi^2) = 36.03 > 5.991$ .

Step VIII = Decision: since the calculated chi- square  $(\chi^2)$  value 36.03 is greater than the critical or tabulated value 5.991, we accept the alternative hypotheses ( $H_i$ ) which states *Social impact of Television on youth does not significantly varies with average time spent on watching daily*. The acceptance of  $H_i$  is because the hypothesis received statistical support. While the hypothesis ( $H_0$ ) is rejected.

### Hypothesis two

The second hypothesis examines *Young viewers of Television tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers*. The research selected 69 respondents that says that improvement of television programmes will increase their preference for social and cultural development while 35 says that improvement of television programmes will not increase their preference for social and cultural development.



Source: Field of study 2015

Step I =  $H_i$  *Young viewers of Television tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers.*

$H_o$  *Young viewers of Television does not tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers.*

Step II = The statistical test is  $\chi^2 = \sum \frac{(O-E)^2}{E}$

where O = Observed frequencies,  
 E = Expected frequencies,  
 $\sum$  = Summation;

Step III = The level of significance is 5% = 0.05

Step IV = the degree of freedom is given by (K-1)

where  $K= 2: 2 - 1 = 1$

Step V = The critical value is given as 3.841

Step VI = computing the test statistics using table 16

To get (expected frequency)

Total frequency = No of option i.e.

$$E = \frac{120}{2} = 60$$

Step VII = Comparing the test statistic with critical value of  $\chi^2 = 11.75 > 3.841$

Step VIII = Decision: since the calculated chi-square value 11.75 is greater than the critical or tabulated value, we accept the alternative hypothesis ( $H_i$ ) which states that Young viewers of Television tend to show greater degree of acceptance to social and cultural abnormalities from what they watch than other categories of viewers while the null hypothesis ( $H_o$ ) is rejected.

## Discussion of Findings

A number of major conclusions may be drawn from the result and findings of this study. There is statistical significant relationship between how often one watches television and one's tendency to identify with diminishing cultural and social value. The results showed a positive relationship which means that as television exposure tends to go up, identification with Western television tradition especially American television stars also tends to go up.

This suggests that the average daily television broadcast content and video cassettes contents in Nigeria are more of foreign origin than local ones. Nigerian youths also tend to identify with Western television star as models for various reasons ranging from their perception of the programmes in which the stars appear as being of high product quality to the believe that the stars themselves exhibit qualities which are in tune with time.

This study also indicates that Nigerian University students identify with television stars especially music video stars and movie stars of foreign origin more than other television stars. More than  $\frac{3}{4}$  of the stars identified featured in foreign produced television productions and majority of them are gangster musicians as Snoop Doggy Dog, Busta Rhyme, Nelly Roll – land, Late Tupac Shakur, Sean Paul, Joe, Beyonce, Ashanti, 50 – Cent, Puff Daddy, Usher, Michael Jackson, Madonna, Janet Jackson, 11 live crew etc as well as movie stars as Anold Schwarzenegger, silver Stallone, Van Damme, Chuk Noris, Leonardo Decaprio, Lean Clande, Irene Jacolo, Sharon Stone, Cynthia Rothrock, Lisa Boyle, etc Johnson (2014).

The recurrent noticeable drift of the young generation of Nigerians to the music, life styles and values of television stars of the western world is a clear indication that the youths are watching, not only are they watching more than any other audience group, they are watching actively (Comstock et al 2012).

There is no doubt that there exist on our screens movies than needed local television programmes. This has led to the growth of nihilism i.e. “the general disposition to doubt” among the Nigerian youths in whom the destiny of this country lie. If the prevailing rate of weird dressing, sexual pervasion, gangsterism and general moral bankruptcy among our youths is nothing to go by, then one can safely conclude this country is more or less destined to gratuitous self-destruction.

All of these go to confirm that exposure to television alters the original cultural dictionary identity of the Nigerian youths. They all show that exposure to Western television lead to low Nigerian self-image and a corresponding high projected self-image among Nigerian students as a result of their perception of reality of life in the Western world as shown on television (see television projections of reality as the best form of life).

The youths therefore, tend to discard Nigerian norms and values (low self - image) and become manifestly consistently with Western behaviour in keeping with their perception of their culture (high projected self - image). This means that what the youth learn from television is instrumental in the formation of their cultural values.

The results of this study showed that “Westerns” increases as “Nigerians” decreases among Nigerian youths and students.

These confirm the finding by Barnette and McQuail (2008) on the effect of U.S television on Canadian national identity. Johnson (2014) examined the relationship between “perceived reality” and the “cultivation hypotheses”. And the findings of Igbinedion (2012) on the impact of foreign media on the social life of Lagos university students as opined by Stainfield (2012).

The perception of Westerners is based on the viewers construction of social reality and the extent to which acceptance exists for television constructed image of Western reality and further the degree to which the viewers is prepared to substitute that reality and therefore identify for his or her own norms and values.

## Summary

Consequently, youths instead of children are emerging with knowledge too complex for their stage of development. The paper found that traditional and cultural content in the television has a profound real-life effect. Through the multiple components of media: - television/dvds, computer consoles/games, radio and music-ipods/mp4s, internet, mobile phones and magazines/newspapers, media is able to retain substantial spheres of influence over people, especially children. Television viewing can either reinforce norms or offer insights into alternative ways of thinking.

This study also made an effort to compare the impact of television between nuclear and joint family viewers. The study result accentuate the fact that the real impact of television on its viewers depends on its reach and accessibility, socio-economic status of the viewers and the time spent on viewing. The paper concluded by focusing on the urgent need to address television influence on youth's behaviour by providing them with software visualization and communication skills in multimedia environments.

## Recommendation

The policy makers and culture, both the public and private sectors should realize from the findings of this study that there is an urgent need to discontinue with unending literaries about communication and national development aid and take bold measures to put an end to the current trend.

This is because the offshoot of the current rate of accumulation in Nigeria to Western norms, values and beliefs do not only stop at any one area of Nigerian economic, social, moral or spiritual life. They rather encompass all these dimensions and more. And as such should be tackled most seriously by every Nigeria.

Television in Nigeria and other African countries that should see it as their duties to direct and encourage local television programmes. For elites politicians and social institutions who are the creator, purveyors and reinforcers of the Nigerian cultures. And lastly, the owners and managers of information and culture must put into practice the use of television to create a climate for true national development.

## References

- [1] Agarwal, V. B. (2015). Impact of cable television on social life, *Communicator*, July-September, 3: 7-12.
- [2] Bandura, A. (2014). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998).
- [3] Barnette & McQuail, (2010); Children and Television Viewing. *Global Communicator and Television Viewing*. *Global Communicator, Journal*. Vol 1 (2) 3 – 9.
- [4] Dr. B. K. Ravi & Devadas M. B., (2013) Social Impact of Television On Urban Youth In Karnataka-An Empirical Study. *International Refereed Research Journal*, www.researchersworld.com. Vol.– IV, Issue – 4, Oct. 2013 [115].
- [5] Gupta, N. (2012). *Switching Channels: Ideologies of Television in India*. Delhi: Oxford University Press.
- [6] Gerbner, G. (2014). *Mass Media Policies in Changing Cultures*. New York: John Willey.
- [7] Igbinedion Uwakwe (2012), Problem Facing Freedom of Information. *Global Communication Bi – Annual Journals*. Vol 1 (1). 17–19.
- [8] Johnson Samaragdi U. (2014). Quoted by James Shanahan and Michael Morgan.2012.
- [9] Stainfield G. J., (2012). *The Television Audiences- Patterns of Viewing – An update*, England: Gower publishing.



- [10] Stephan Diehl (2015). Software Visualization: Visualizing the Structure, Behaviour, and Evolution of Software. Springer Science & Business Media. p. 63. ISBN 978-3-540-46505-8.
- [11] Stephen G. Eick & Thomas Ball (2013); Software Visualization in the Large. IEEE Computer, Vol. 29, No.4, April 1996. pp. 33-43.
- [12] McQuail, O. (2008). Mass Communication Theory an Introduction. Beverly Hills: California sage Publisher.

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