



Dr. Pradip Kumar Das
Consultant Dermatologist &
General Physician
pradipdr2@gmail.com



Dr. Eshita Das
Consultant Pediatrician,
R.G. Kar Medical College
eshitadas1205@gmail.com



Ms .Mekhola Sen
Consultant Dietitian,
Indian Medical Association,
Serampore Branch
Mekhlasen2017@gmail.com



WhatsApp No.: 9007704579
Ms. Oindrila Dey
MBA Core, NMIMS Mumbai
Student, NMIMS Mumbai
oindrila.dey615@nmims.edu.in

Analytical Aspect of Digital Action of a YouTube Channel : A Study on Serampore Betarbani Media Network

Pradip Kumar Das
Eshita Das
Mekhola Sen
Oindrila Dey

Abstract:

This Study reveals a detailed analysis and progression of the outputs against category based uploaded videos on the YouTube Channel of Serampore Betarbani. Each video has been put into a category and performance has been closely monitored depending on watch time of viewers, preference of viewers and also increased subscription on some particular categories of uploaded videos. These all have been reported thoroughly in this study. Also based on this thorough analysis, action plans for future contents have been recommended. The analysis of education and health categories of all videos clearly show the number viewers and watch time for the purpose of awareness and motivational programmes. This channel takes initiative about to create a huge awareness specially education and health related video content. In this study paper education and health segment and their acceptance is signified.

Keywords: Analytical Aspects, Analysis, Initiative, Health, Educational, Viewers

1. Introduction:

This analytical project has been proceeded to realise the aim of the establishment of this YouTube channel, i.e., for the expression and expansion of proper education, safe health, spreading entertainment. It also the intention to highlight the culture and its

implementation through Bengali poetry, Literature, Dance, Drama, Rituals and Bengali heritage as this YouTube channel is also from a heritage city Serampore where great figures like Sree Chaitnya, Sree Ramkrishna, Raja Rammohan Roy, Aswini Kumar Dutta and Dinabandhu Mitra are connected to and where an immense memories of Serampore College, Rathayatra, the enigmatic Jagannath



Mandir, St. Olav Church, Dol mandir, Radhaballav mandir and other historical buildings situated [Wolff B. et al. (2020)]¹

Health oriented videos from a certain YouTube channel and the use of more important keywords like "Antismoking", "Cigarette" etc., many related videos get recommended by YouTube [Basch Corey H. et al. (2016)]². Some social message or disease awareness also can be delivered successfully to provide information and scope of discussion to viewers [Paek Hye-Jin et al. (2010)]³. This YouTube channel is also attached with Facebook page as the combination of YouTube video with a Facebook page a market can be boosted for a YouTube channel [Singh Lily et al. (2019)]⁴. Briefing and tagging along with a suitable title in respect to the content may conquer viewers' like and there is possibility to increase subscribers [Joseph A. et. al., (2022)]⁵. and a YouTube channel increase by the quality, relevance, watch history and engagement of videos, i.e., likes, shares and comments which this channel is trying to maintain [McLachlan S. (2023)]⁶.

2. Review of Literature:

According to Peak Hye-jin et.al. In an antismoking campaign, depending on the message appeal with social, humour and specially with threat, antismoking video clips on YouTube can snatch viewers' attention [Hye-Jin Paek et al. (2010)]⁷. Joseph A. narrated that for young generation especially for the job seekers YouTube through its educational videos can be a needful platform. With skilled presentation of unique contents more audience and viewers come [Joseph A. et al. (2022)]⁸. Jones T. had said that now a day educational videos on YouTube is very useful potential and learning aid among students [Jones T. (2011)]⁹. Bello-Bravo J. highlighted that - in a Higher Education Institutions (HEIs) for better understanding that may be theoretical or practical, educational YouTube videos of a channel reaches to viewers for informal learning. Reach, popularities, and variable accessibility of this particular YouTube platform increases through

¹ Wolff B. et al. (2020). Restoring the glory of Serampore. Colonial heritage, popular history and identity during rapid urban development in West Bengal. *International Journal of Heritage Studies*. DOI: 10.1080/13527258.2020.1824163

² Corey H. Basch et al. (2016). A Content Analysis of YouTube™ Videos Related to Prostate Cancer. *American Journal of Men's Health* 1–4. DOI: 10.1177/1557988316671459

³ Paek Hye-Jin et al. (2010). Content analysis of antismoking videos on YouTube: message sensation value, message appeals, and their relationships with viewer responses. *Advance Access publication*. Vol.25 no.6.

⁴ Singh Lily et al. (2019). Top 7 Lilly Singh Desi YouTube Collaborations. DESIblitz www.DESIblitz.com

⁵ Joseph A. et. al., (2022). *A Study on the How to Become A Successful Content Creator and Contribution of Youtube To The Gdp*. *International Journal of Creative Research Thoughts (IJCRT)*. Volume 10. www.ijcrt.org

⁶ McLachlan S. et al. (2023). How the YouTube Algorithm Works in 2023: The Complete Guide. Hootsuite. <https://blog.hootsuite.com/how-the-youtube-algorithm-works/>

⁷ Paek Hye-Jin et al. (2010). Content analysis of antismoking videos on YouTube: message sensation value, message appeals, and their relationships with viewer responses. *Advance Access publication*. Vol.25 no.6.

⁸ Joseph A. et al. (2022). *A Study on the how to become a successful content creator and contribution of YouTube to the GDP*. *International Journal of Creative Research Thoughts (IJCRT)*. Volume 10. www.ijcrt.org

⁹ Jones T. et al. (2011). YouTube: Educational Potentials and Pitfalls. *Computers in The Schools*. Pages 75-85. doi: 10.1080/07380569.2011.553149



educational content [Bello-Bravo J. et al. (2021)]¹⁰. Bass-Flimmons E. (2015) in Africa tutorial videos are being uploaded for the promotion of open learning of students. 25 videos were uploaded at YouTube in Africa in between 2007-2014 in the name of "Ghana mobile learning" [Bass-Flimmons. E. (2015)]¹¹. Sreenanda said that both dedication and patient are required for the growth of YouTube channel. Drawback and benefit are most common factor there [Sreenanda (2021)]¹².

According to Corey H. Basch, the YouTube is a widespread and emerging venue to give society health related message through health-related videos like the most widely viewed prostate cancer related video in world [Corey H. Basch et al. (2016)]¹³. McLachlan S. said that almost 70% video recommendation drives by YouTube algorithm. YouTube algorithm depends on viewers' personal choice of watching or previous watch history. [McLachlan S. (2023)]¹⁴. Singh Lily, a content creator, often makes YouTube video collaboration with other renowned content creators for receiving more viewers which can be a way of success for any YouTube channel. [Singh Lily (2019)]¹⁵. Karadia A. commented that as an "Open Educational Resource" students, scholars and universities use to see videos, categorically like business, entertainment, and education [Karadia A. (2021)]¹⁶. Abdul Ashik M. has categorically said that social media through YouTube can come to people with information globally without any cost. For that phenomenon audience acceptance becomes easier and effective. [Abdul Ashik M. (2021)]¹⁷ According to a YouTube channel Y Combinator (2023), views and subscriber may increase by getting wide variety of topics related videos that should not be long and by receiving different areas of interest for start-up ideas [Rondena G. (2023)]¹⁸. Szmuda T. has shown that during the COVID pandemic period, awareness about corona virus and its spread, symptoms, treatment and so on were well explained by experienced students through a YouTube channel for patients' education and arousing awareness [Szmuda T. (2020)]¹⁹.

¹⁰ Bello-Bravo J. et al. (2021). Measuring the impact and reach of informal educational videos on YouTube: The case of Scientific Animations Without Borders. *Heliyon* 7. Doi: 10.1016/j.heliyon.2021.e08508

¹¹ Erica Bass-Flimmons Erica-Bass et al. (2015). Mobile Learning in Ghana: A content analysis of YouTube videos promoting teacher development opportunities within Higher Education.

¹² Sreenanda (2021). Rise With YouTube As A Career: Talk & Connect To Minds. <https://idreamcareer.com/blog/youtube-as-a-career/>

¹³ H. Basch C et al. (2016). A Content Analysis of YouTube™ Videos Related to Prostate Cancer. *American Journal of Men's Health* 1–4. DOI: 10.1177/1557988316671459

¹⁴ McLachlan S. et al (2023). How the YouTube Algorithm Works in 2023: The Complete Guide. Hootsuite. <https://blog.hootsuite.com/how-the-youtube-algorithm-works/>

¹⁵ Singh Lily et al. (2019). Top 7 Lilly Singh Desi YouTube Collaborations. DESIblitz www.DESIblitz.com

¹⁶ Karadia A. (2021). Content Analysis of Top View YouTube Videos on Open Educational Resources. Researchgate. https://www.researchgate.net/publication/351902730_Content_Analysis_of_Top_View_YouTube_Videos_on_Open_Educational_Resource

¹⁷ Abdul Ashik M. (2021). Success Factors of YouTube Entrepreneurs. *Asian Journal of Economics, Finance and Management* 3(1): 436-449. Article no.AJEFM.511

¹⁸ Rondena G. et al (2023). The 10 Best YouTube Channels for Startup Founders in 2023. divbyzero. <https://divbyzero.com/blog/best-youtube-channels-for-startup-founders/>

¹⁹ Szmuda T. et al. (2020). YouTube as a source of patient information for Coronavirus Disease (COVID-19): A content-quality and audience engagement analysis. *NIH. Rev Med Virol.* 30(5):e2132. doi: 10.1002/rmv.2132.



Talha S.M. highlighted that 'Bacterial Meningitis' a life threatening disease, was a topic of video broadcasted from a YouTube channel where 79.76% content among all other videos were on causes and symptoms of Meningitis [Talha S.M et al. (2021)]²⁰. According to Shairwal S. et al. (2022), YouTubers' must be concerned about YouTube community norms from Government where Act 2000 from Indian Government Empower can prohibit any content of YouTube that is detrimental to people and if any YouTube video breaks Section 295 A of the Indian Penal Code, 1960 that says not to insult religious beliefs, those videos or YouTube channels may be received strike or may be deleted or prohibited or can be penalized [Shairwal S. et al. (2022)]²¹.

3. Research Gap:

So many research studies have been done on analytical discussion and benefits of video contents of YouTube channels. However, in this study, a brief analysis along with number of viewers, exact number of subscribers increased at the specific categories of videos specifically for Education and Health Awareness those have been described thoroughly. Moreover, impact of the viewers who are watching the YouTube Programmes have also been taken into cognizance, and self-criticism for betterment has been also been made in the present study.

4. Objectives of the Study:

The objectives of this study are to spread awareness socially by uploading Educational, Social and Environmental, Entrepreneur and to analyze the performance of Serampore Betarbani YouTube Channel from its inception on August 15,2021 to 13th February,2023. The analysis has been done on the below parameters –

- Quality of content uploaded on YouTube.
- Impact of number of videos uploaded on YouTube.
- Viewers' choice on Categories of videos uploaded on YouTube.
- Age and Sex wise Receptibility of videos broadcasted on YouTube.

5. Methodology:

5.1 Data Collection:

Data regarding this YouTube channel is collected from 15th August 2021 to 13th February, 2023. By collecting the total number of category specific videos and by counting the total views, watch time,

²⁰ Talha S.M et al. (2021). YouTube as a source of patient information for meningitis: A content-quality and audience engagement analysis. *Clinical Neurology and Neurosurgery*, Volume 202. doi: 10.1016/j.clineuro.2021.106483

²¹ Shairwal S. et al. (2022). *Legal requirements for making YouTube channel in India*. <https://www.lexology.com/library/detail.aspx?g=37e19548-6689-41d6-ab9b-dd416fccbeaa>



subscribers, specific age group of category wise uploaded videos, specificity of gender among viewers, area of viewers etc.

5.2 Data Processing:

The collected data is divided into education and health. These data have been then sorted in increasing order of date of uploads and depending on the viewers and subscribers which have been analyzed through put all data into google analysis.

5.3 Plotting graphs:

The processed data, from each category on YouTube was then studied for noticeable patterns in the views with the gradual uploads. Graphs have been plotted depending on all the data analysis like number of videos of different categories, total views, total watch time in hour, total subscribers, from which country how much people have watched, percentage of male and female viewers. Percentage of male and female watch time in hour have been plotted in bar diagram.

6. Collection of Data:

Data collected on the Category wise programmes conducted by the Channel and those are given in the following Tables.

Table No. 1: Information related to Programmes Conducted on Education Category

Title of videos	Video published time	Viewers	Watch time(H)	Subscribers
Sikkhangan	Aug 18, 2021	1352	79	60
Sikkhangan	Oct 27, 2021	697	37	15
Sikkhangan	Nov 05, 2021	501	20	5
Sikkhangan	Nov 10, 2021	1078	38	48
Sikkhangan	Nov 14, 2021	455	19	14
Sikkhangan- Bitarka sabha	Dec 22, 2021	546	35	10
Sikhyangan-Bitarkasabha Sikhyangane rajniti kamyoy noy	Dec 26, 2021	400	16	7
Sikhyangan-Bitarkasabha College e porar sathe premer kono badha nei	Jan 05, 2022	1522	127	47
Bitarkasabha Baba mar swapno puron noy, amader vobissot amrai gorbo	Jan 16, 2022	809	43	46
Sikhyangan-Bitarkasabha sikhya byabosthai ekmatro bikolpo byabosta	Jan 23, 2022	3080	216	33
Sikhyangan-Bitarkasabha Vaggis Corona elo! Mobile byabohare ma babar nisedhyagga uthe gyaloy	Jan 30, 2022	441	18	9
Sikhyangan-Bitarkasabha Doshghara Uccho Balika Vidyalaya	Feb 16, 2022	1048	46	65
Sikhyangan-Bitarkasabha Nabagram Satya Bharati Balika Vidyapith	Feb 18, 2022	231	8	9
Sikhyangan-Bitarkasabha Baidyabati Vidyaniketan high school	Feb 27, 2022	275	7	4



Sikhyangan- Bitarkasabha Baidyabati Banamali Mukherjee Institution	Feb 27, 2022	203	5	12
M.P examination FB LIVE	Mar 01, 2022	168	7	1
H.S examination FB LIVE	Mar 23, 2022	65	3	0
Tatkhonik boktoby Episode:1	May 28, 2022	9665	424	134
Tatkhonik boktoby Episode:2	Jun 01, 2022	2824	150	40
Tatkhonik boktoby Episode:3	Jun 08, 2022	2551	123	42
Tatkhonik boktoby Episode:4	Jun 26, 2022	1561	91	20
Bicharer bani nirobe nibhrite kande	Jul 06, 2022	287	12	9
Sikhyangan Career counselling Sourav Das	Feb 10, 2023	121	3	0

Table No.2: Information related to Programmes Conducted on Health category

Title of videos	Video published time	Viewers	Watch time(H)	Subscribers
Apnar Sastha Amader Bhabna	Aug 20, 2021	505	22	16
Apnar Sastha Amader Bhabna	Sep 01, 2021	435	19	6
Apnar Sastha Amader Bhabna	Sep 12, 2021	398	22	6
Apnar Sastha Amader Bhabna	Sep 24, 2021	271	13	9
Apnar Sastha Amader Bhabna	Nov 07, 2021	301	16	2
Apnar Sastha Amader Bhabna I	Nov 17, 2021	246	11	1
Apnar Sastha Amader Bhabna	Nov 26, 2021	173	8	2
Apnar Sastha Amader Bhabna Surgery Dr. Amalendu Mukherjee	Dec 03, 2021	429	22	13
Apnar sastha Amader Bhabna Mrigi Rog Dr. Gautam Gangully	Jan 12, 2022	363	24	2
Apnar sastha Amader Bhabna Hatur byatha Dr. Nilay Kanti Das	Jan 21, 2022	1771	131	16
Apnar sastha Amader Bhabna Kaner somossya Dr. Chandan Ghoshal	Feb 02, 2022	328	26	10
Apnar sastha Amader Bhabna Sisu der jonmogoto truti Dr. Partha Pratim Gupta	Feb 06, 2022	113	3	5
Apnar sastha Amader Bhabna Dr. Dipten Chatterjee	Oct 07, 2022	109	5	2

Table No. 3: Total no. of videos, views, watch time and subscribers.

SL NO.	Title of the Video	Video published date	No of Videos	Total view	Total watch time (hours)	Subscribers
1	Education (Sikkhangon)	Aug 18, 2021- Feb 10, 2023	23	29923	1535	451
2	Health (Apnar Sastha Amader Bhabna)	Aug 20, 2021- Oct 07, 2022	11	5828	342	97

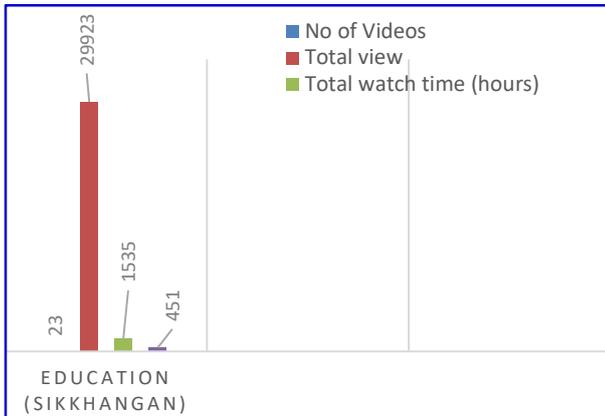


Figure-1: About broadcasted Educational Videos

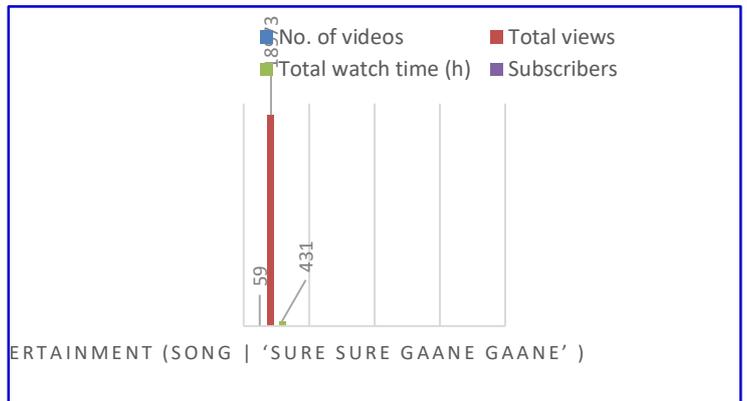


Figure -2: About broadcasted Health related Videos

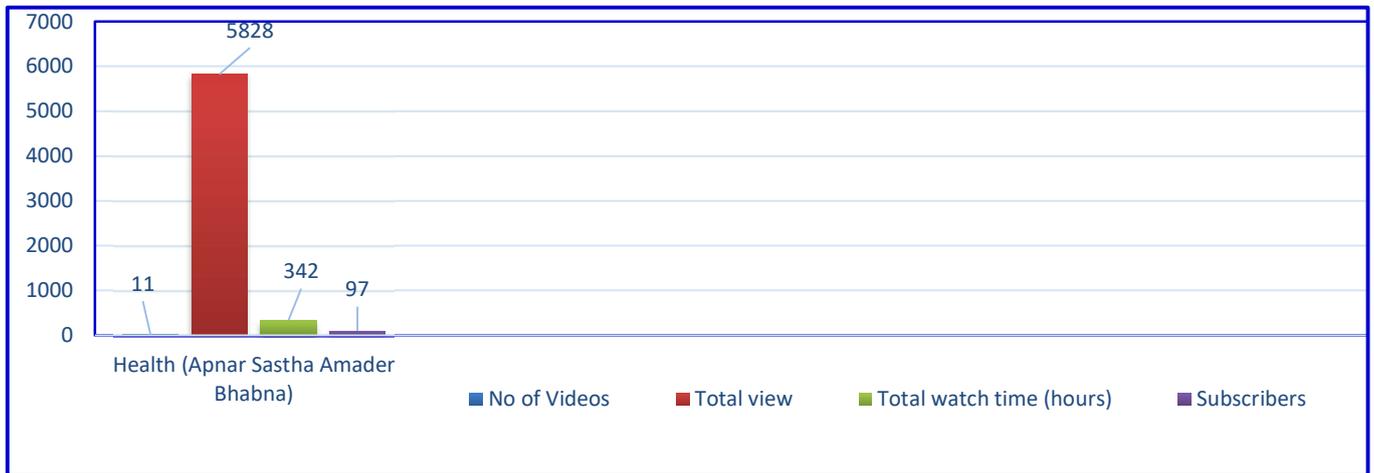


Figure 3: About broadcasted Geography related Videos

Table No. 4: Data based on Geography, watch time(H), Total percentage of views and watch time of male and female

Geography	Watch time duration(H)	Total Watch Time Female (%)	Total Watch Time Male (%)	Percentage female viewers (%)	Percentage of male viewers (%)
India	3973.6338	43.16	56.84	43.15	56.85
Bangladesh	258.9527				
United States	1.3922				
Sweden	0.7173				
Saudi Arabia	0.6622				
United Arab Emirates	0.6235				

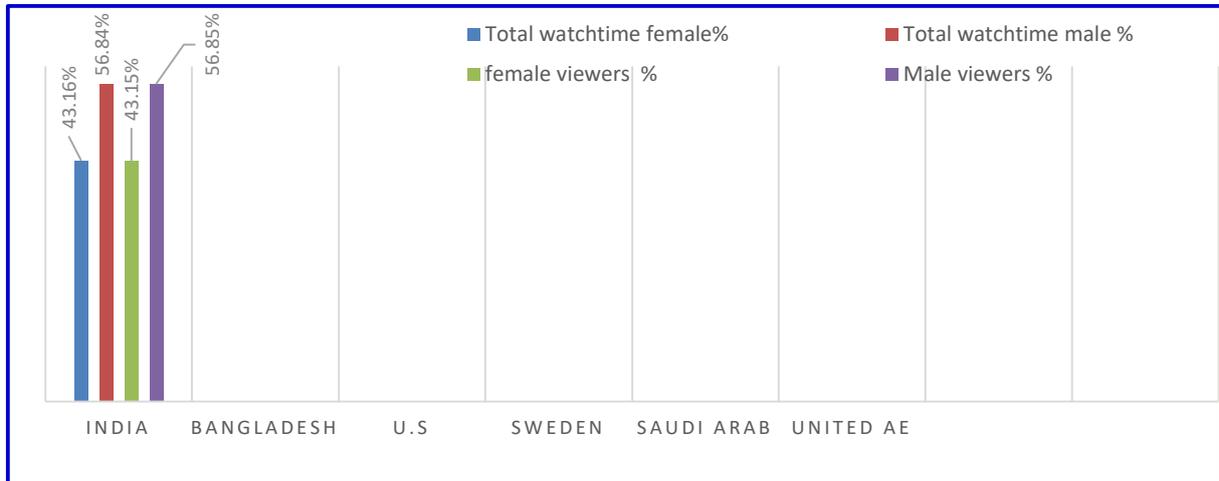


Figure- 4 : Relation among Geography, Total percentage of views and watch time of Male & Female

7. Results Revealed from the Study:

From the above Tables and Graphs it is clearly concluded that Education related videos have been uploaded in more numbers and highest views, watch time and subscribers also have come through this segmentation. Such important health related videos have been uploaded but not as much as educational videos. Table no. 3 shows that during the uploading time span in this channel highest uploaded videos are on Education category in respect to the number of uploaded videos than health category. Total views, watch time and subscribers have been increased depending on Education segment. Other segments, especially Health is not showing more no. of views, watch time(H) and subscribers despite having the equal or more important segment. while related to Education category. From Table no. 4 and Graph 5, it can be concluded as a result that highest watch time can be found from India geographically. From Graph 4, it also can be concluded that the percentage of total watch time and percentage of viewers are found higher in male than female.

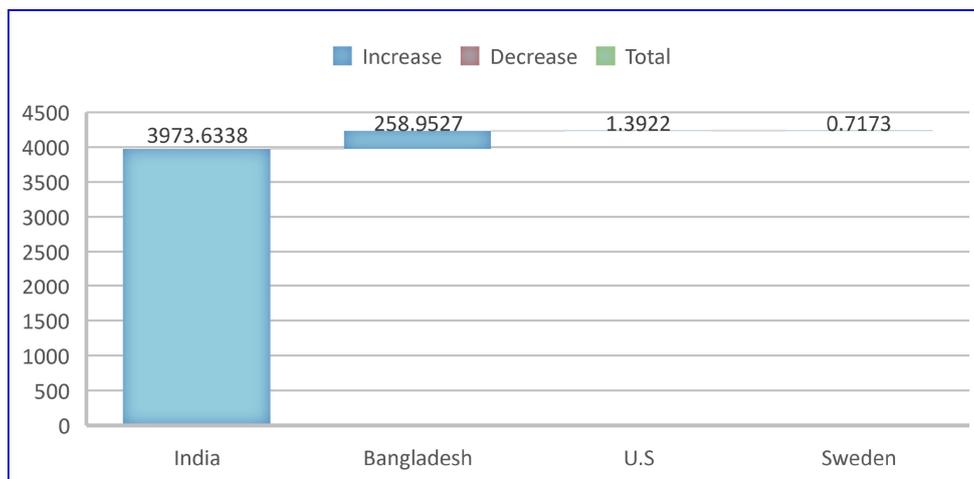


Figure- 5 : Relation Between Geography and watch time(H)



7.1. Interpretation of Results:

7.1.1 Education:

- One of the most promising segments of the channel.
- Videos with the highest views revolve around trending issues to help nudge audience interest.

7.1.2 Health:

- The health segment has a high potential for growth and awareness.
- Videos with the highest views revolve around afflictions that are common in every household, like "knee pain."
- Another interesting point to note is that the video with the highest views has the content "knee pain", mentioned in its title.

7.2 Findings:

From collection of data or survey of some segment of this YouTube channel, and after graphical analysis of these data it can be found that among all other segments Education reveals the highest views, watch time and subscription. Besides these, Mental health, Entrepreneur, Dance, Drama, Environment are revealing less viewers, watch time and subscription. Although the Health segment achieves quite a good viewer, watch time, subscriber but this cannot be related with educational contents.

8. Conclusion

Serampore Betarbani is an invaluable platform that can give considerable amount of exposure to the rich cultural heritage of the quaint town of Serampore. After a thorough analysis of its performance, recommendations for the categories of Education and Health have been made and regularity could be maintained for a particular type of content. In addition to that, the platform may strive to upload video content in both Bengali and English Language, so that audience from across the country and the world, can enjoy the videos.

9. Suggestions:

9.1 Suggestions regarding Programme on Education:

Videos in the category of the highest number of views have the maximum number of participants, that automatically increases the number of views since each, and every participant tends to share with their n no. of peers. So, future videos must be **focused** on having **at least** three participants on screen, besides the host. The content of the most watched videos revolved around **extempore**. This can be modified into a more competitive nature to generate a sense of suspense and incentivize viewers. Inter-school competitions can be hosted on extempore like "Akna Girls vs Ramesh Girls", etc.



9.2 Suggestions regarding Programme on Health:

Weekly videos can significantly improve viewership and increase subscriptions to the channel. Videos should be made on health issues that are very common in households like hair fall in both men and women, arthritis, back pain, weight gain, etc. Video Titles should contain keywords from the content, audience tend to play videos that spark their interest. If the video title is ambiguous, that may lead to loss in views despite quality content. To popular the videos, doctors who are interviewing, can be given a pamphlet of the episode, which they can stick in their chambers. Various patients coming in can utilize their waiting time by watching the videos, and the ripple effect can also lead to increased subscriptions.

References:

- Ashik A. et al (2021). *Success Factors of YouTube Entrepreneurs*. *Asian Journal of Economics, Finance and Management* 3(1): 436-449. Article no. AJEFM.511.
- Bass-Flimmons E. et al. (2015). *Mobile Learning in Ghana: A content analysis of YouTube videos promoting teacher development opportunities within Higher Education*.
<https://www.semanticscholar.org/paper/Mobile-Learning-in-Ghana%3A-A-content-analysis-of-Bass-Flimmons/d6ffc2e254f2c37527b9d4b6df93039caf661663>
- Basch Corey H. et al. (2016). *A Content Analysis of YouTube™ Videos Related to Prostate Cancer*. *American Journal of Men's Health* 1–4. DOI: 10.1177/1557988316671459
- Bello-Bravo J. et al. (2021). *Measuring the impact and reach of informal educational videos on YouTube: The case of Scientific Animations Without Borders*. *Heliyon* 7. Doi: 10.1016/j.heliyon.2021.e08508
- Freeman B. (2007). *Is "YouTube" telling or selling you something? Tobacco content on the YouTube video-sharing website*. *Tobacco Control*;16:207–210. doi: 10.1136/tc.2007.020024
- Joseph, A. et. al., (2022). *A Study on the How to Become A Successful Content Creator and Contribution of Youtube To The Gdp*. *International Journal of Creative Research Thoughts (IJCRT)*. Volume 10. www.ijcrt.org
- Jones T. (2011). Pages 75-85. *YouTube: Educational Potentials and Pitfalls*. *Computers in The Schools*. doi: [10.1080/07380569.2011.553149](https://doi.org/10.1080/07380569.2011.553149)
- Karadia A. (2021). *Content Analysis of Top View YouTube Videos on Open Educational Resources*. *Researchgate*.
https://www.researchgate.net/publication/351902730_Content_Analysis_of_Top_View_YouTube_Videos_on_Open_Educational_Resource
- McLachlan S. (2023). *How the YouTube Algorithm Works in 2023: The Complete Guide*. *Hootsuite*.
<https://blog.hootsuite.com/how-the-youtube-algorithm-works/>
- Paek Hye-Jin et al. (2010). *Content analysis of antismoking videos on YouTube: message sensation value, message appeals, and their relationships with viewer responses*. *Advance Access publication*. Vol.25 no.6.
- Rondena G. (2023). *The 10 Best YouTube Channels for Startup Founders in 2023*. *divbyzero*.
<https://divbyzero.com/blog/best-youtube-channels-for-startup-founders/>
- Shairwal S. et al. (2022). *Legal requirements for making YouTube channel in India*.
<https://www.lexology.com/library/detail.aspx?g=37e19548-6689-41d6-ab9b-dd416fccbeaa>
- Singh Lily et al (2019). *Top 7 Lilly Singh Desi YouTube Collaborations*. *DESIBlitz* www.DESIBlitz.com
- Sreenanda (2021). *Rise With YouTube As A Career: Talk & Connect To Minds*.
<https://idreamcareer.com/blog/youtube-as-a-career/>



- Szmuda T. (2020). *YouTube as a source of patient information for Coronavirus Disease (COVID-19): A content-quality and audience engagement analysis*. *NIH. Rev Med Virol*. 30(5): e2132. doi: 10.1002/rmv.2132.
- Talha S.M. et al. (2021). *YouTube as a source of patient information for meningitis: A content-quality and audience engagement analysis*. *Clinical Neurology and Neurosurgery*. [Volume 202](#). doi: 10.1016/j.clineuro.2021.106483
- Wolff B. et al. (2020). *Restoring the glory of Serampore. Colonial heritage, popular history and identity during rapid urban development in West Bengal*. *International Journal of Heritage Studies*. DOI: 10.1080/13527258.2020.1824163