

**A DATA ANALYSIS ON THE BAD EFFECTS OF CHILD'S SOCIAL MEDIA
AND VIDEO GAME ATTRACTION DURING THE COVID-19 PANDEMIC AND
BEFORE THE PANDEMIC**

BY

**SUSHANTA SEN
ID: 211-25-937**

This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Master of Science in Computer Science and Engineering.

Supervised By

Professor Dr. Md. Ismail Jabiullah
Professor
Department of CSE
Daffodil International University

Co-Supervised By

Md. Abbas Ali Khan
Senior Lecturer
Department of CSE
Daffodil International University

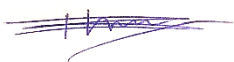


**DAFFODIL INTERNATIONAL UNIVERSITY
DHAKA, BANGLADESH
JANUARY 2022**

APPROVAL

This Project titled “A DATA ANALYSIS ON THE BAD EFFECTS OF CHILD'S SOCIAL MEDIA AND VIDEO GAME ATTRACTION DURING THE COVID-19 PANDEMIC AND BEFORE THE PANDEMIC”, submitted by Sushanta Sen, ID No: 211-25-937 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of M.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 22 January, 2022.

BOARD OF EXAMINERS



Chairman

Dr. Touhid Bhuiyan
Professor and Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

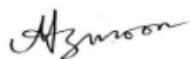


Internal Examiner

Md. Zahid Hasan

Associate Professor

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University



Internal Examiner

Nazmun Nessa Moon

Associate Professor

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University



External Examiner

Dr. Mohammad Shorif Uddin


Professor

Department of Computer Science and Engineering
Jahangirnagar University

DECLARATION

I hereby declare that, this project has been done by me under the supervision of **Professor Dr. Md. Ismail Jabiullah, Professor, Department of CSE,** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

Supervised by:



Professor Dr. Md. Ismail Jabiullah
Professor
Department of CSE
Daffodil International University

Co-Supervised by:



Md. Abbas Ali Khan
Senior Lecturer
Department of CSE
Daffodil International University

Submitted by:



Sushanta Sen
ID: 211-25-937
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First I express my heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year research project successfully.

I really grateful and wish my profound my indebtedness to **Professor Dr. Md. Ismail Jabiullah, Professor**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of my supervisor in the field of “*Data mining*” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

I would like to express my heartiest gratitude to **Dr. Touhid Bhuiyan, Professor**, and Head, Department of CSE, for his kind help to finish my project and also to other faculty member and the staff of CSE department of Daffodil International University.

I would like to thank my entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, I must acknowledge with due respect the constant support and patience of my parents.

ABSTRACT

Today's child are the future of the world. They will lead the world tomorrow. But if today's child are in a bad track, the world will fall in danger tomorrow. Many child in this generation are attracted on social media and video game. Specially, during the covid-19 situation, it increases most. For this reason, many child have a bad effect on their body, mind and their character also. Using social media by child, can lead them in a bad track. Because there are many things in social media which are not suitable for child and these can made a bad effect on their mind. Besides, playing too much video games by child, can make different health problem and mind problem. Those social media and video games hamper their study and misguide them. In this research, I analyse the data of child's social media and video game attraction during and before covid-19 and try to find out the statistics of child are attracted on these. Then find out the same statistics of child's attraction for village and city areas child during and before covid-19. Also here find out the statistics of child are effected in their body, mind and study by those things during and before covid-19.

TABLE OF CONTENTS

CONTENTS	PAGE
Board of examiners	i
Declaration	ii
Acknowledgements	iii
Abstract	iv
CHAPTER	
CHAPTER 1: INTRODUCTION	1-4
1.1 Introduction	1
1.2 Motivation	1
1.3 Rationale of the Study	2
1.4 Research Questions	2
1.5 Expected Output	2
1.6 Project Management and Finance	3
1.7 Report Layout	3
CHAPTER 2: BACKGROUND	5-7
2.1 Terminologies	5
2.2 Related Works	6
2.3 Comparative Analysis and Summary	6
2.4 Scope of the Problem	7

2.5 Challenges	7
CHAPTER 3: RESEARCH METHODOLOGY	8-10
3.1 Research Subject and Instrumentation	8
3.2 Data Collection Procedure	8
3.3 Statistical Analysis	8
3.4 Proposed Methodology	9
3.5 Implementation Requirements	9
CHAPTER 4: EXPERIMENTAL RESULTS AND DISCUSSION	11-30
4.1 Experimental Setup	11
4.2 Experimental Results & Analysis	11
4.3 Discussion	30
CHAPTER 5: IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY	31
5.1 Impact on Society	31
5.2 Impact on Environment	31
5.3 Ethical Aspects	31
5.4 Sustainability Plan	31
CHAPTER 6: SUMMARY, CONCLUSION, RECOMMENDATION AND IMPLICATION FOR FUTURE RESEARCH	32-33
6.1 Summary of the Study	32
6.2 Conclusions	32

6.3 Recommendations	32
6.4 Implication for Further Study	33
REFERENCES	34
APPENDIX	35-37

LIST OF FIGURES

FIGURES	PAGE NO
Figure 4.1: Boys and Girls Attraction on Social Media during the Covid-19 Pandemic	12
Figure 4.2: Boys and Girls Attraction on Social Media before the Covid-19 Pandemic	13
Figure 4.3: Boys and Girls Attraction on Video Games during the Covid-19 Pandemic	15
Figure 4.4: Boys and Girls Attraction on Video Games before the Covid-19 Pandemic	16
Figure 4.5: Difference between Village and City for Social Media Attraction during the Covid-19 Pandemic	17
Figure 4.6: Difference between Village and City for Social Media Attraction before the Covid-19 Pandemic	19
Figure 4.7: Difference between Village and City for Video Games Attraction during the Covid-19 Pandemic	20
Figure 4.8: Difference between Village and City for Video Games Attraction before the Covid-19 Pandemic	22
Figure 4.9: Data Visualization of Health Problem during the Covid-19 pandemic	23
Figure 4.10: Data Visualization of Health Problem before the Covid-19 pandemic	24
Figure 4.11: Data Visualization of Mental Problem during the Covid-19 pandemic	25
Figure 4.12: Data Visualization of Mental Problem before the Covid-19 pandemic	26
Figure 4.13: Data Visualization of How in Study during the Covid-19 pandemic	27

Figure 4.14: Data Visualization of How in Study before the Covid-19 pandemic

29

LIST OF TABLES

TABLES	PAGE NO
Table 4.1: Testing Result for Total Boys and Girls Attraction on Social Media during the Covid-19 Pandemic	12
Table 4.2: Testing Result for Total Boys and Girls Attraction on Social Media before the Covid-19 Pandemic	14
Table 4.3: Testing Result for Total Boys and Girls Attraction on Video Games during the Covid-19 Pandemic	15
Table 4.4: Testing Result for Total Boys and Girls Attraction on Video Games before the Covid-19 Pandemic	17
Table 4.5: Testing Result for the Difference between Village and City for Social Media Attraction during the Covid-19 Pandemic	18
Table 4.6: Testing Result for the Difference between Village and City for Social Media Attraction before the Covid-19 Pandemic	19
Table 4.7: Testing Set for the Difference between Village and City for Video Games Attraction during the Covid-19 Pandemic	21
Table 4.8: Testing Set for the Difference between Village and City for Video Games Attraction before the Covid-19 Pandemic	22
Table 4.9: Testing Set for Any Health Problem during and before the Covid-19 pandemic	25
Table 4.10: Testing Set for Any Mental Problem during and before the Covid-19 pandemic	27
Table 4.11: Testing Set for How in Study during the Covid-19 pandemic	28
Table 4.12: Testing Set for How in Study before the Covid-19 pandemic	29

CHAPTER 1

INTRODUCTION

1.1 Introduction:

Children are the foundation of our country. Their activities in the future will ensure our country will prosper or not. If they do well then our country will prosper. If they don't do well then our country will not prosper. But it fully depend on the activities in their child life. Because it is the time to build their character and health. If their character and health are good in child life then they will be a good person. If their character and health are not good in child life then they will be a bad person. Now a days children are addicted in social media and video games. This hampers their progress of building character and health much. We have to care on this side.

Data Mining is the system of detecting attractive knowledge, like patterns, changes, associations, significant structures and anomalies, from big amounts of data gathered in databases, data warehouses, or some other information repositories. Due to the extensive presence of very large amounts of data in electronic forms, and the forthcoming necessity for rotating such data into workable information and knowledge for big applications including Business management, Market analysis and decision support, data mining has drawn a great deal of eye in information industry in current years.

Data mining is useful for classifying changes. Child's history, personal data give a large amount of information regarding a chosen change. The datasets are applied for extracting necessary information. From those we are capable to take alternatives and create laws.

1.2 Motivation:

Though my research activity is on child's social media and video games attractions which caused day by day, I consider it will be a tremendous to work in this field. From this research paper, we can know about the current status of the child's attractions and the changes of during covid-19 situation and before covid-19 situation. From the research, I can animate people in this matter. Because in many cases it is happened for the family

members. So everybody should be careful. And also they should check if their child are attracted on those or not.

1.3 Rationale of the Study:

The main reason to study in this matter is, it is the most common talked in this modern days. Because now a days every child is attracted on social media or video games. Those hampers their study, health and character as well. For that reason, I think that I should study regarding this matter and make an example for the society.

1.4 Research Questions:

Few questions of the research was on my knowledge boost me to construct the research. The questions are:

1. Does the research have any real honor?
2. Will it commit people conscious about child social media and video games attractions?
3. How to collect data?
4. How to analyze it?
5. Are those correct or not?

1.5 Expected Output:

Here in the research, I hope much output result. Those are:

1. Here I will find the results of “Boys and Girls Attraction on Social Media, Boys and Girls Attraction on Video Games, Difference between Village and City for Social Media Attraction and Difference between Village and City for Video Games Attraction” according to the data of during the Covid-19 pandemic and before the pandemic.

2. Finally, I will find some other results for different attributes with the help of Data Visualization. Those results will be “Data Visualization of Health Problem and Mental Problem and Data Visualization of How in Study” according to the data of during the Covid-19 pandemic and before the pandemic.

1.6 Project Management and Finance:

To do this research project I have to manage the Google Form. Because there I have to collect the data using the Google Form and need to keep update the Data sheet and the results. Because as much as the data increased, the results of the projects become more efficient.

To do this research project I need not finance any money. Because in my research I collect data virtually using Google Form. No hard skill required in my research project.

1.7 Report Layout:

In the report at first I provide a page of cover with my Title, Name of Supervisor and Co-supervisor Name. Next I provide the part of Acknowledgement, Abstract, List of Contents, List of Figures and the List of Table. Then I continued to write 6 separate chapters.

In 1st chapter which is “Introduction”, I describe about the Introduction, Motivation, Rationale of the Study, Research Questions, Expected Output, Project Management & Finance and Report Layout of the research.

In 2nd chapter which is “Background”, I describe about the Terminologies, Related Works, Comparative Analysis & Summary, Scope of the Problem and Challenges of the research.

In 3rd chapter which is “Research Methodology”, I describe about the Research Subject & Instrumentation, Data Collection Procedure, Statistical Analysis, Proposed Methodology and Implementation Requirements of the research.

In 4th chapter which is “Experimental Results and Discussion”, I describe about the Experimental Setup, Experimental Results & Analysis and Discussion of the research.

In 5th chapter which is “Impact on Society, Environment & Sustainability”, I describe about the Impact on Society, Impact on Environment, Ethical Aspects and Sustainability Plan of the research.

In 6th chapter which is “Summary, Conclusion, Recommendation and Implication for Further Research” I describe about the Summary of the Study, Conclusions, Recommendations and Implication for Further Study of the research.

Then finishing describe the chapters I provide the Appendices and References for the writing the report.

CHAPTER 2

BACKGROUND

2.1 Terminologies:

It is proved that from 5 to 8 percent of children and teenagers are devoted to the video games. In current dates, the WHO has classified video game devotion as a Mental Health Disorder.

One of the situations which commit the use fascinating for children is they may be able to exercise with little materials, unlike more games of traditional.

One could join to these factors the devotion of forming social links, the prizes of sequential game, and a cordially advanced sense of continuous execution founded on well-known principles of psychological reinforcement.

Devotion to video games can have significant health problems on children. They can command to ocular and postural problems, bad eating and sleeping practices, social isolation, anger and aggressive attitude that can be risky to others when asked to close playing. Children may lose their friends who are not gamers [01].

WhatsApp, Twitter, Facebook, Instagram, IMO, Snapchat, LinkedIn, YouTube and Viber are the main social networking sites what we say social media revealing a terrible threat for the users distressed with them. Among all social networking sites, the use of Facebook has been the most popular to the people of all ages [02].

Devoted children may also become worried and bored, commanding them to social isolation, poor school attendance, low self-esteem and failing school grades. Although obsessive gaming can happen other problems, it may also illustrate a child's reaction to other radical conditions like poor communication with their parents or with other children, depression and anxiety.

2.2 Related Works:

A journal paper which title is “Social media? It's serious! Understanding the dark side of social media” was published in “European Management Journal 36 (2018) 431- 438”. This is related to my thesis because here discussed about the dark side of the social media.

Another journal paper which title is “Relationship between social media addiction, game addiction and family functions” is also related to my thesis which was published in “International Journal of Evaluation and Research in Education (IJERE) Vol. 9, No. 4, December 2020, pp. 979~986”.

Again a journal paper which title is “Social Media and Depressive Symptoms in Childhood and Adolescence: A Systematic Review” which was published in “Adolescent Res Rev (2017) 2:315–330” related to my thesis paper.

2.3 Comparative Analysis and Summary:

I will present here the result and the approach of finding the results of the child social media and video games attraction also its difference between village and city during the Covid-19 pandemic and before the pandemic.

Also I will show the results of child health problem and mental problem have for those activities during the Covid-19 pandemic and before the pandemic.

Finally I will find here the results of the value of how many child are good, medium and bad in study who are attract on social media and video games during the Covid-19 pandemic and before the pandemic.

After getting all the results of my thesis, I will take the screenshots of the results from Weka Explorer. Then I will put the screenshots in this doc file. Here I will compare the

results of the screenshots using some tables. The tables will give the full knowledge of the thesis. In this document, I will give all the necessary information of my thesis.

2.4 Scope of the Problem:

There are few scope of this research. Those are:

1. In the research, I tell about child's social media and video games attraction problem during and before covid-19. I believe it's a unique one and so it will create a fresh platform to test.
2. The analysis will provide a better sense in this matter.
3. As the research provides us a better classification and analysis concept about those attractions, people may conscious about this after the research.

2.5 Challenges:

I need to face few challenges to exhibit my research. Those are:

1. Nobody want to provide their read data.
2. The process of data collection is very difficult.
3. Since many people do not know the information, so we can't take those data. So, I need to find out the persons who know the data. So it was very hard for me to get this type of persons.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Subject and Instrumentation:

The research subject is “A Data Analysis on the Bad Effects of Child's Social Media and Video Game Attraction during the Covid-19 pandemic and before the pandemic”.

There are few software and hardware instruments applied to exhibit the research. Those are:

Software: Weka Explorer, Google Form, Microsoft Excel.

Hardware: Laptop, mouse, key-board.

3.2 Data Collection Procedure:

The data collection processes are given here:

- ❖ First of all, I make a Google Form to collect some data providing the form. I collect a descent amount of data to fulfill my thesis.
- ❖ Then I take the data in a MS excel sheet. Then I will train the sheet in Weka Explorer making the sheet .csv file. Making .csv file is important because Weka Explorer can't train MS excel sheet.

3.3 Statistical Analysis:

Child social media and video games attractions are the most common problem in Bangladesh. Those have become the leading cause of child mental and health problem in recent decade. Specially, during the covid-19 those attractions have increased in a higher rate. In my research, I concentrate on child social media and video games attractions during and before covid-19. Here in the research I am trying to find out the differences of child social media and video games attraction also its difference between village and city

during the Covid-19 pandemic and before the pandemic, differences of child health problem and mental problem have for those activities during the Covid-19 pandemic and before the pandemic, differences of how many child are good, medium and bad in study who are attract on social media and video games during the Covid-19 pandemic and before the pandemic. And to find the best result, I apply data mining technology. Because data mining helps to extract needful data from huge amount of data by using an algorithms. Here I creates a data analysis which aids to know the results.

3.4 Proposed Methodology:

I use one algorithm in our research. The algorithm is Naïve Bayes. This one algorithm is used for different experimental results in this research.

Algorithm: Naive Bayes

Naive Bayes algorithm is a simple technique for constructing classifiers: models that assign class labels to problem instances, represented as vectors of feature values, where the class labels are drawn from some finite set. There is not a single algorithm for training such classifiers, but a family of algorithms based on a common principle: all naive Bayes classifiers assume that the value of a particular feature is independent of the value of any other feature, given the class variable. For example, a fruit may be considered to be an apple if it is red, round, and about 10 cm in diameter. A naive Bayes classifier considers each of these features to contribute independently to the probability that this fruit is an apple, regardless of any possible correlations between the colour, roundness, and diameter features [03].

3.5 Implementation Requirements:

The implementation requirements for this research are given below:

1. Google Form: Google Form is a platform where a form is created for data collection. It is fully an online system. Without internet nobody can give any kind of data by it.

2. Microsoft Excel Worksheet: In the Microsoft excel worksheet format I download the data collected from Google Form. Then I convert the sheet in Microsoft Excel Comma Separated Values file (.csv) for implementing the result in Weka software.

3. Weka: Weka is a software which is exercised for different machine learning algorithms for the Data Mining works. There present many data mining tools for data preparation, classification, regression, clustering, association and visualization. Weka is mighty enough to provide us the facility for implementing more than one classification algorithm only for a single example. In that case I have to use weka for getting the expected results for the data sets. At first I preprocessed the .csv data sheets for getting the testing results. Also .arrf file can be used for this. But I use .csv file. Then I remove the attributes which are not required for testing the algorithms. Finally I use the algorithm for getting different results.

The benefits of using Weka:

1. It is very reliable.
2. It is more sophisticated.
3. There are limited problems only.

CHAPTER 4

EXPERIMENTAL RESULTS AND DISCUSSION

4.1 Experimental Setup:

In the research, my main target is to find the data analysis of child social media and video games attractions during and before covid-19 and also its differences in village and city. But I have perform some extra work too. I also get the data of child health problem and mental problem for those attractions during and before covid-19 in whole data set. For getting more information, I also find the data of how many child are good, medium and bad in study who are attract on those attractions during and before covid-19 for the whole data set. The algorithms is used here is the Naïve Bayes Classifier algorithm to find out the data results. Here I used Weka Explorer software to perform the research.

4.2 Experimental Results & Analysis:

Step 1:

In the first implementation of my research I mainly find the result of how many boys and girls attract on social media during the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.1 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on social media and “No” gives the result of child do not attract on social media.

```

01:41:09 - bayes.NaiveBayes
Instances: 174
Attributes: 2
Gender
Does he/she attract on social media during the Covid-19 pandemic?
Test mode: evaluate on training data

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute      Class
              Yes    No
              (0.39) (0.61)
=====
Gender
Boy            41.0   61.0
Girl           28.0   48.0
[total]        69.0  109.0

Time taken to build model: 0.02 seconds

=== Evaluation on training set ===

Time taken to test model on training data: 0.02 seconds

=== Summary ===

Correctly Classified Instances      107          61.4943 %
Incorrectly Classified Instances    67          38.5057 %
Kappa statistic                     0
Mean absolute error                 0.4733
Root mean squared error             0.4863
Relative absolute error             99.8814 %
Root relative squared error         99.9364 %
Total Number of Instances          174

=== Detailed Accuracy By Class ===

              TP Rate  FP Rate  Precision  Recall   F-Measure  MCC      ROC Area  PRC Area  Class
              0.000   0.000   ?         0.000   ?         ?       0.518    0.394    Yes
              1.000   1.000   0.615    1.000   0.762    ?       0.518    0.624    No
Weighted Avg.  0.615   0.615   ?         0.615   ?         ?       0.518    0.535

=== Confusion Matrix ===

  a  b  <-- classified as
  0 67 |  a = Yes
  0 107 | b = No

```

Figure 4.1: Boys and Girls Attraction on Social Media during the Covid-19 Pandemic

In table 4.1 mainly the input output of the 1st implementation have been analysed. Here we find that 40 boys attract on social media out of 100 and 27 girls attract on social media out of 74. Here the 40% boys has that attraction and 36.49% girls has that. This table 4.1 mainly gives the full description of 1st implementation.

Table 4.1: Testing Result for Total Boys and Girls Attraction on Social Media during the Covid-19 Pandemic

Gender	Total Child	Attract on Social Media	Percentage
Boy	100	40	40%
Girl	74	27	36.49%

Step 2:

In the second implementation of my research I mainly find the result of how many boys and girls attract on social media before the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.2 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on social media and “No” gives the result of child do not attract on social media.

```
01:51:29 - bayes.NaiveBayes
Instances: 174
Attributes: 2
Gender
Did he/she attract on social media before the Covid-19 pandemic?
Test mode: evaluate on training data

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute      Class
              Yes    No
              (0.24) (0.76)
=====
Gender
Boy           23.0   79.0
Girl          20.0   56.0
[total]       43.0  135.0

Time taken to build model: 0 seconds

=== Evaluation on training set ===

Time taken to test model on training data: 0 seconds

=== Summary ===

Correctly Classified Instances      133      76.4368 %
Incorrectly Classified Instances    41      23.5632 %
Kappa statistic                     0
Mean absolute error                 0.3611
Root mean squared error             0.424
Relative absolute error              99.8061 %
Root relative squared error         99.9082 %
Total Number of Instances          174

=== Detailed Accuracy By Class ===

              TP Rate  FP Rate  Precision  Recall  F-Measure  MCC      ROC Area  PRC Area  Class
0.000  0.000  ?      0.000  ?      ?      0.525  0.245  Yes
1.000  1.000  0.764  1.000  0.866  ?      0.525  0.774  No
Weighted Avg.  0.764  0.764  ?      0.764  ?      ?      0.525  0.649

=== Confusion Matrix ===
 a  b  <-- classified as
0  41 |  a = Yes
0  133 |  b = No
```

Figure 4.2: Boys and Girls Attraction on Social Media before the Covid-19 Pandemic

In table 4.2 mainly the input output of the 2nd implementation have been analysed. Here we find that 22 boys attract on social media out of 100 and 19 girls attract on social media out of 74. Here 22% boys has that attraction and 25.68% girls has that. This table 4.2 mainly gives the full description of 2nd implementation.

Table 4.2: Testing Result for Total Boys and Girls Attraction on Social Media before the Covid-19 Pandemic

Gender	Total Child	Attract on Social Media	Percentage
Boy	100	22	22%
Girl	74	19	25.68%

Step 3:

In the third implementation of my research I mainly find the result of how many boys and girls attract on video games during the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.3 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on video games and “No” gives the result of child do not attract on video games.

```

01:59:29 - bayes.NaiveBayes
Instances: 174
Attributes: 2
Gender
Does he/she attract on video games during the Covid-19 pandemic?
Test mode: evaluate on training data

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute      Class
               Yes    No
               (0.4) (0.6)
=====
Gender
Boy            55.0  47.0
Girl           17.0  59.0
[total]        72.0 106.0

Time taken to build model: 0 seconds

=== Evaluation on training set ===

Time taken to test model on training data: 0.02 seconds

=== Summary ===

Correctly Classified Instances      112          64.3678 %
Incorrectly Classified Instances    62          35.6322 %
Kappa statistic                    0.3076
Mean absolute error                 0.4314
Root mean squared error             0.4635
Relative absolute error             89.657 %
Root relative squared error         94.5261 %
Total Number of Instances          174

=== Detailed Accuracy By Class ===

                TP Rate  FP Rate  Precision  Recall   F-Measure  MCC      ROC Area  PRC Area  Class
Weighted Avg.   0.771    0.442    0.540     0.771    0.635     0.326    0.665    0.509    Yes
                 0.558    0.229    0.784     0.558    0.652     0.326    0.665    0.701    No

=== Confusion Matrix ===
  a  b  <-- classified as
54 16 | a = Yes
46 58 | b = No

```

Figure 4.3: Boys and Girls Attraction on Video Games during the Covid-19 Pandemic

In table 4.3 mainly the input output of the 3rd implementation have been analysed. Here we find that 54 boys attract on video games out of 100 and 16 girls attract on video games out of 74. Here 54% boys has that attraction and 21.62% girls has that. This table 4.3 mainly gives the full description of 3rd implementation.

Table 4.3: Testing Result for Total Boys and Girls Attraction on Video Games during the Covid-19 Pandemic

Gender	Total Child	Attract on Video Games	Percentage
Boy	100	54	54%
Girl	74	16	21.62%

Step 4:

In the fourth implementation of my research I mainly find the result of how many boys and girls attract on video games before the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.4 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on video games and “No” gives the result of child do not attract on video games.

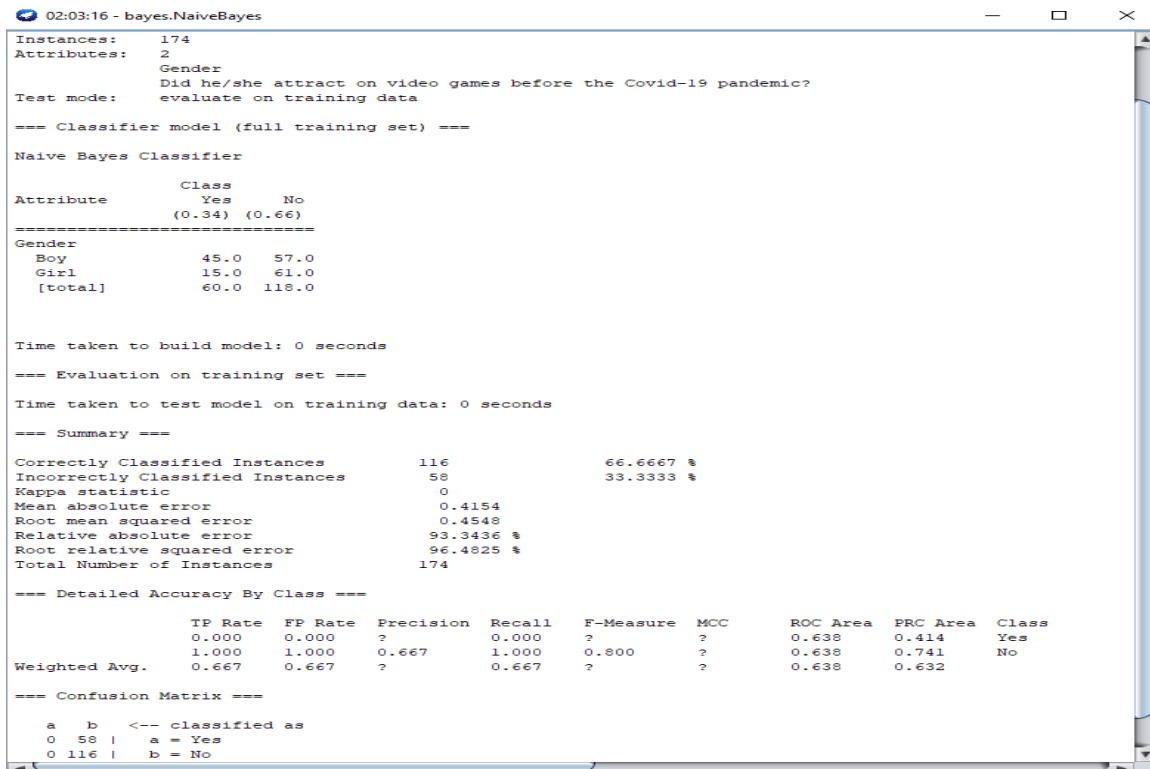


Figure 4.4: Boys and Girls Attraction on Video Games before the Covid-19 Pandemic

In table 4.4 mainly the input output of the 4th implementation have been analysed. Here we find that 44 boys attract on video games out of 100 and 14 girls attract on video games out of 74. Here 44% boys has that attraction and 18.92% girls has that. This table 4.4 mainly gives the full description of 4th implementation.

Table 4.4: Testing Result for Total Boys and Girls Attraction on Video Games before the Covid-19 Pandemic

Gender	Total Child	Attract on Video Games	Percentage
Boy	100	44	44%
Girl	74	14	18.92%

Step 5:

In the fifth implementation of my research I mainly find the result of how many child of village and city attract on social media during the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.5 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on social media and “No” gives the result of child do not attract on social media.

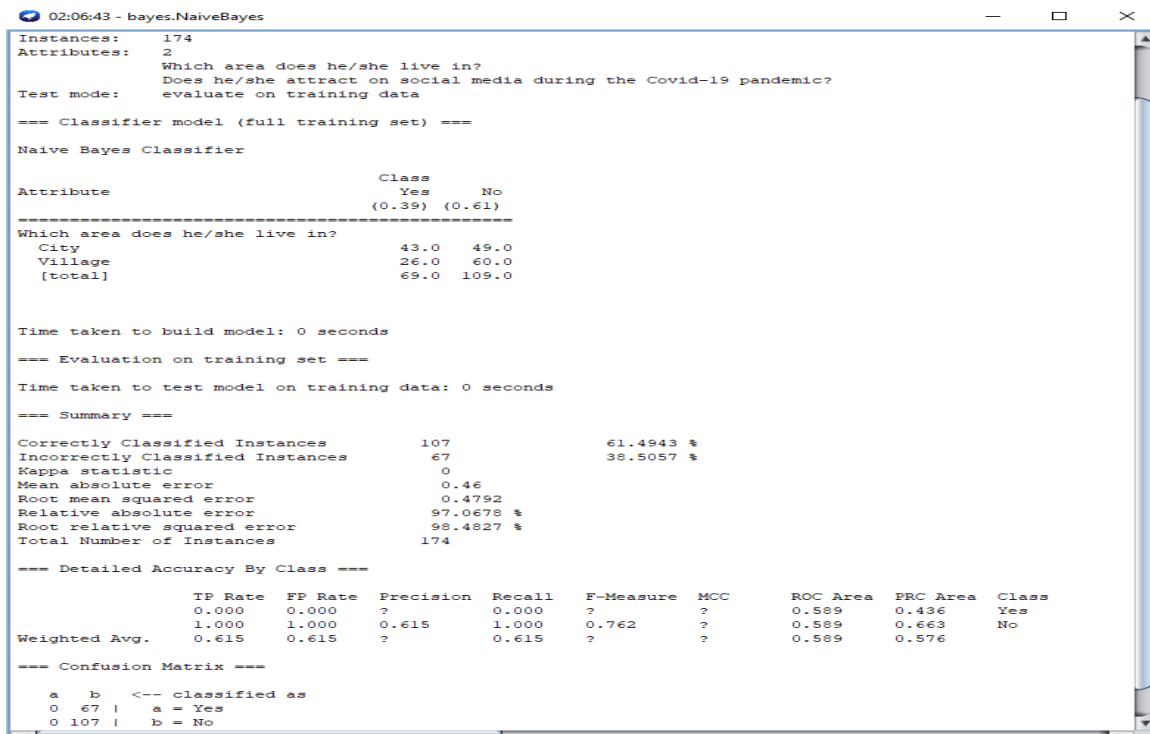


Figure 4.5: Difference between Village and City for Social Media Attraction during the Covid-19 Pandemic

In table 4.5 mainly the input output of the 5th implementation have been analysed. Here we find that 42 child attract on social media in city out of 90 and 25 child attract on social media in village out of 84. Here 46.67% children of the city has that attraction and 29.76% children of the village has that. This table 4.5 mainly gives the full description of 5th implementation.

Table 4.5: Testing Result for the Difference between Village and City for Social Media Attraction during the Covid-19 Pandemic

Living Place	Total Child	Attract on Social Media	Percentages
City	90	42	46.67%
Village	84	25	29.76%

Step 6:

In the sixth implementation of my research I mainly find the result of how many child of village and city attract on social media before the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.6 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on social media and “No” gives the result of child do not attract on social media.

```

02:09:19 - bayes.NaiveBayes
Instances: 174
Attributes: 2
Which area does he/she live in?
Did he/she attract on social media before the Covid-19 pandemic?
Test mode: evaluate on training data

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute          Class
                   Yes   No
                   (0.24) (0.76)
-----
Which area does he/she live in?
City               29.0   63.0
Village            14.0   72.0
[total]            43.0  135.0

Time taken to build model: 0 seconds

=== Evaluation on training set ===

Time taken to test model on training data: 0.01 seconds

=== Summary ===

Correctly Classified Instances      133      76.4368 %
Incorrectly Classified Instances    41      23.5632 %
Kappa statistic                     0
Mean absolute error                 0.3501
Root mean squared error             0.4172
Relative absolute error             96.7602 %
Root relative squared error         98.2931 %
Total Number of Instances          174

=== Detailed Accuracy By Class ===

          TP Rate  FP Rate  Precision  Recall  F-Measure  MCC      ROC Area  PRC Area  Class
          0.000    0.000    ?          0.000    ?          ?        0.608    0.287    Yes
          1.000    1.000    0.764     1.000    0.866     ?        0.608    0.808    No
Weighted Avg.   0.764    0.764    ?          0.764    ?          ?        0.608    0.685

=== Confusion Matrix ===
  a  b  <-- classified as
  0  41 |  a = Yes
  0 133 |  b = No

```

Figure 4.6: Difference between Village and City for Social Media Attraction before the Covid-19 Pandemic

In table 4.6 mainly the input output of the 6th implementation have been analysed. Here we find that 28 child attract on social media in city out of 90 and 13 child attract on social media in village out of 84. Here 31.11% children of the city has that attraction and 15.48% children of the village has that. This table 4.6 mainly gives the full description of 6th implementation.

Table 4.6: Testing Result for the Difference between Village and City for Social Media Attraction before the Covid-19 Pandemic

Living Place	Total Child	Attract on Social Media	Percentages
City	90	28	31.11%
Village	84	13	15.48%

Step 7:

In the seventh implementation of my research I mainly find the result of how many child of village and city attract on video games during the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.7 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on video games and “No” gives the result of child do not attract on video games.

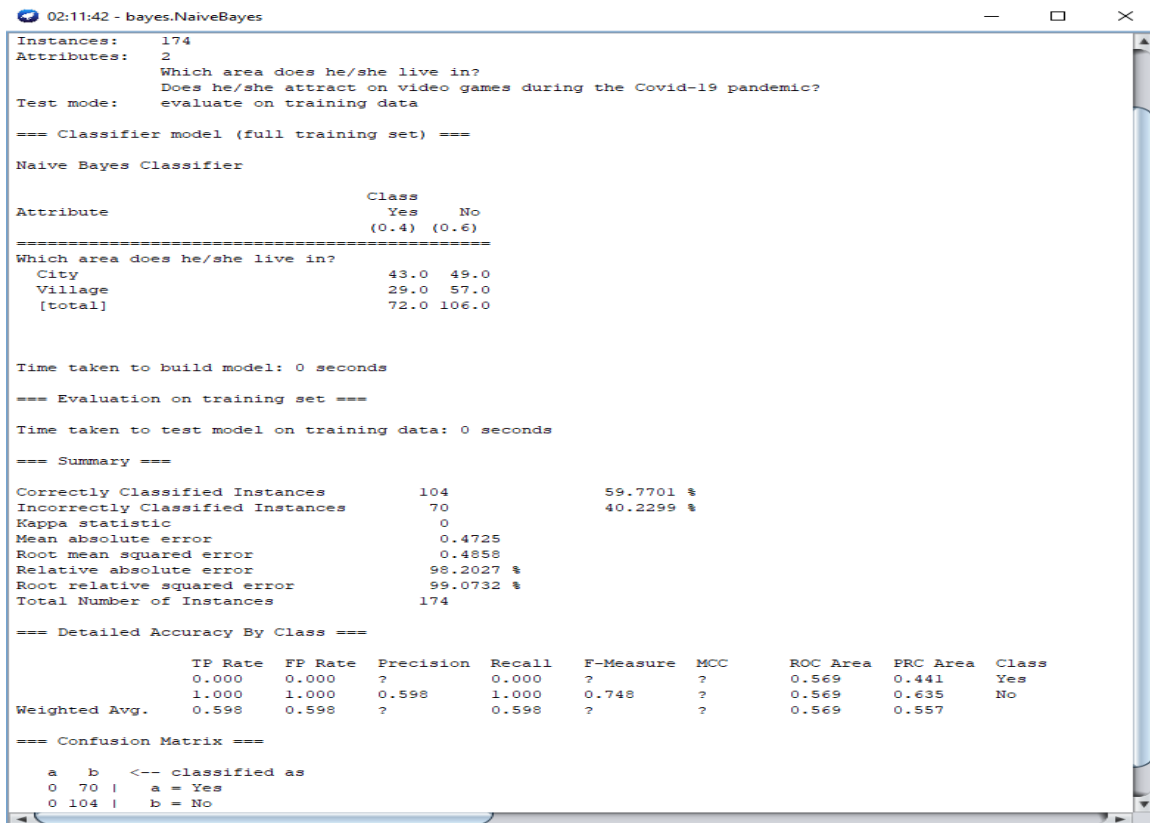


Figure 4.7: Difference between Village and City for Video Games Attraction during the Covid-19 Pandemic

In table 4.7 mainly the input output of the 7th implementation have been analysed. Here we find that 42 child attract on video games in city out of 90 and 28 child attract on video

games in village out of 84. Here 46.67% children of the city has that attraction and 33.33% children of the village has that. This table 4.7 mainly gives the full description of 7th implementation.

Table 4.7: Testing Set for the Difference between Village and City for Video Games Attraction during the Covid-19 Pandemic

Living Place	Total Child	Attract on Video Games	Percentages
City	90	42	46.67%
Village	84	28	33.33%

Step 8:

In the eighth implementation of my research I mainly find the result of how many child of village and city attract on video games before the covid-19 by the help of Naïve Bayes algorithm. Here in figure 4.8 shows this. But here every result of “Yes-No” is increased by plus 1 and total by plus 2. For finding the actual value we have to decrease “Yes-No” by minus 1 and total by minus 2. Here “Yes” gives the result of child attract on video games and “No” gives the result of child do not attract on video games.


```

02:14:42 - bayes.NaiveBayes
Instances: 174
Attributes: 2
Which area does he/she live in?
Did he/she attract on video games before the Covid-19 pandemic?
Test mode: evaluate on training data

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute                Class
                          Yes    No
                          (0.34) (0.66)
=====
Which area does he/she live in?
City                      32.0   60.0
Village                   28.0   58.0
[total]                   60.0  118.0

Time taken to build model: 0 seconds

=== Evaluation on training set ===

Time taken to test model on training data: 0.02 seconds

=== Summary ===
Correctly Classified Instances      116          66.6667 %
Incorrectly Classified Instances    58          33.3333 %
Kappa statistic                    0
Mean absolute error                 0.4448
Root mean squared error             0.4713
Relative absolute error             99.9434 %
Root relative squared error         99.9703 %
Total Number of Instances          174

=== Detailed Accuracy By Class ===

          TP Rate  FP Rate  Precision  Recall   F-Measure  MCC      ROC Area  PRC Area  Class
          0.000    0.000    ?         0.000    ?         ?       0.513    0.339    Yes
          1.000    1.000    0.667    1.000    0.800    ?       0.513    0.673    No
Weighted Avg.   0.667    0.667    ?         0.667    ?         ?       0.513    0.561

=== Confusion Matrix ===
  a  b  <-- classified as
  0 58 | a = Yes
  0 116 | b = No

```

Figure 4.8: Difference between Village and City for Video Games Attraction before the Covid-19 Pandemic

In table 4.8 mainly the input output of the 8th implementation have been analysed. Here we find that 31 child attract on video games in city out of 90 and 27 child attract on video games in village out of 84. Here 34.44% children of the city has that attraction and 32.14% children of the village has that. This table 4.8 mainly gives the full description of 8th implementation.

Table 4.8: Testing Set for the Difference between Village and City for Video Games Attraction before the Covid-19 Pandemic

Living Place	Total Child	Attract on Video Games	Percentages
City	90	31	34.44%
Village	84	27	32.14%

Step 9:

In the ninth implementation of my research I mainly find the result of how many child have health problem who are attract on social media and video games both or any one during the covid-19 by the help of data visualization. Here in figure 4.9 shows the health problem during covid-19. Here in figure 4.9, “Yes” gives the result of child have health problem and “No” gives the result of child have not health problem.



Figure 4.9: Data Visualization of Health Problem during the Covid-19 pandemic

Step 10:

In the tenth implementation of my research I mainly find the result of how many child have health problem who are attract on social media and video games both or any one before the covid-19 by the help of data visualization. Here in figure 4.10 shows the health

problem before covid-19. Here in figure 4.10, “Yes” gives the result of child have health problem and “No” gives the result of child have not health problem.



Figure 4.10: Data Visualization of Health Problem before the Covid-19 pandemic

In table 4.9 mainly the input output of the 9th and 10th implementation have been analyzed. Here we find that 48 child have health problem attract on social media and video games both or any one out of 174 during covid-19 and 36 child have health problem attract on social media and video games both or any one out of 174 before covid-19. This table 4.9 mainly gives the full description of 9th and 10th implementation.

Table 4.9: Testing Set for Any Health Problem during and before the Covid-19 pandemic

Stage	Total Number of Problem
During Covid-19	48
Before Covid-19	36

Step 11:

In the eleventh implementation of my research I mainly find the result of how many child have mental problem who are attract on social media and video games both or any one during the covid-19 by the help of data visualization. Here in figure 4.11 shows the mental problem during covid-19. Here in figure 4.11, “Yes” gives the result of child have mental problem and “No” gives the result of child have not mental problem.

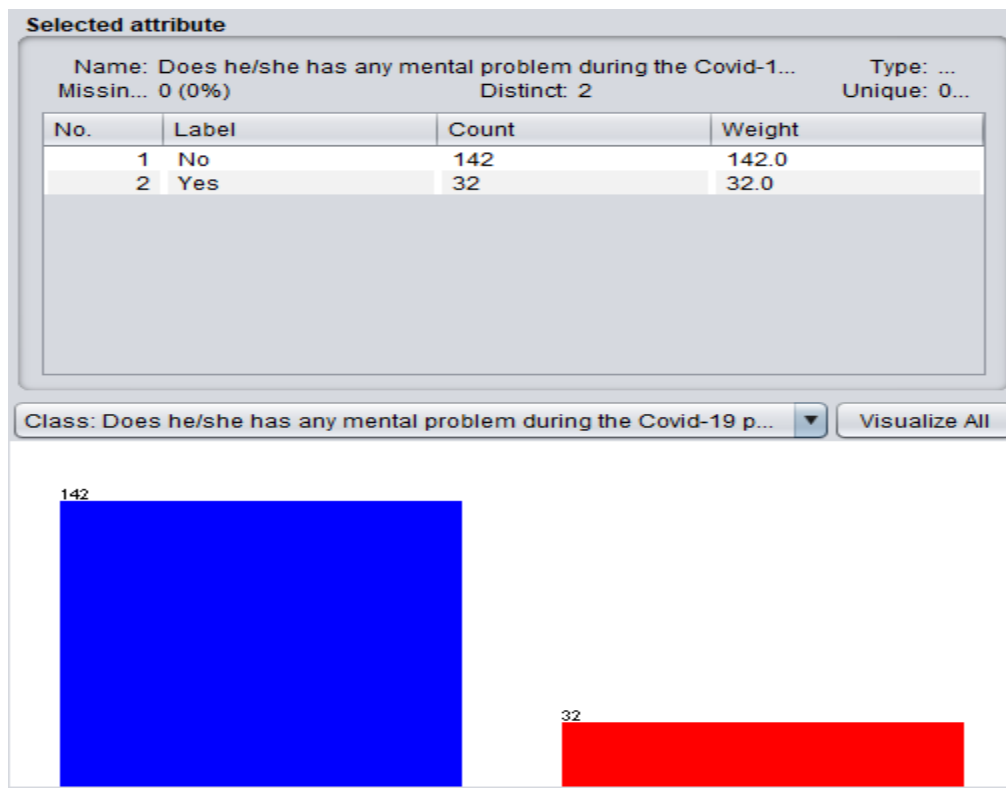


Figure 4.11: Data Visualization of Mental Problem during the Covid-19 pandemic

Step 12:

In the twelfth implementation of my research I mainly find the result of how many child have mental problem who are attract on social media and video games both or any one before the covid-19 by the help of data visualization. Here in figure 4.12 shows the mental problem before covid-19. Here in figure 4.12, “Yes” gives the result of child have mental problem and “No” gives the result of child have not mental problem.

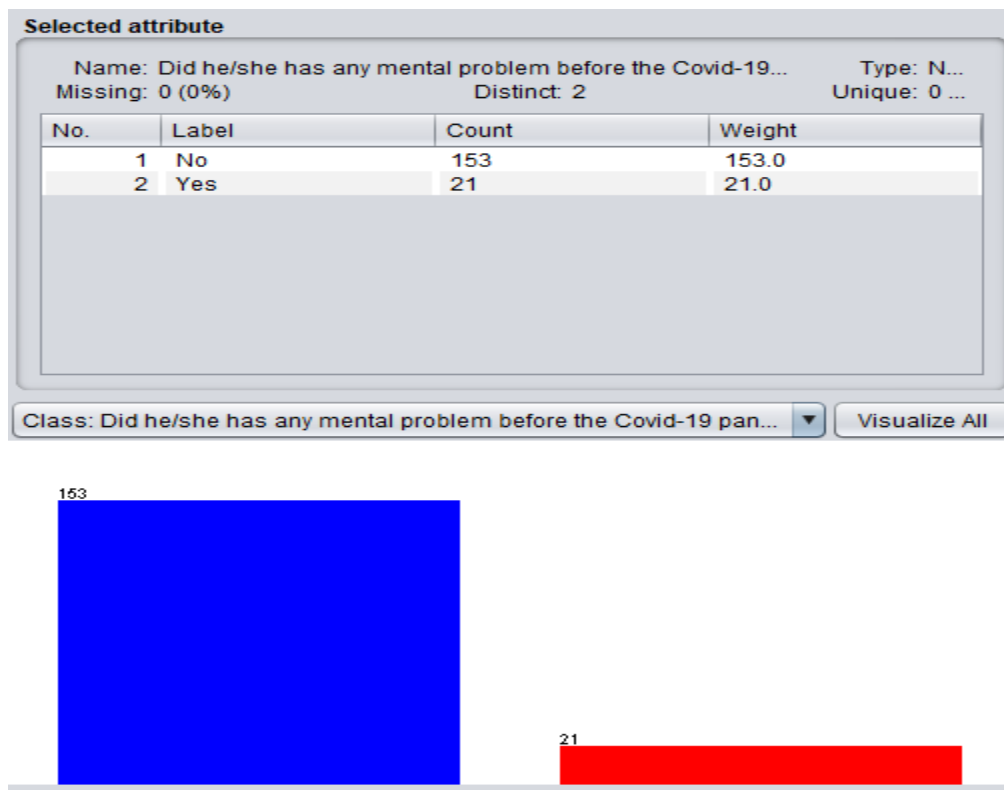


Figure 4.12: Data Visualization of Mental Problem before the Covid-19 pandemic

In table 4.10 mainly the input output of the 11th and 12th implementation have been analyzed. Here we find that 32 child have mental problem attract on social media and video games both or any one out of 174 during covid-19 and 21 child have mental problem attract on social media and video games both or any one out of 174 before

covid-19. This table 4.10 mainly gives the full description of 11th and 12th implementation.

Table 4.10: Testing Set for Any Mental Problem during and before the Covid-19 pandemic

Stage	Total Number of Problem
During Covid-19	32
Before Covid-19	21

Step 13:

In the thirteenth implementation of my implementation I mainly find the result of the child how in study who are attract on social media and video games both or any one during the covid-19 by the help of data visualization. Here in figure 4.13 shows this. The result gives three category of student, which are Good, Medium and Bad.

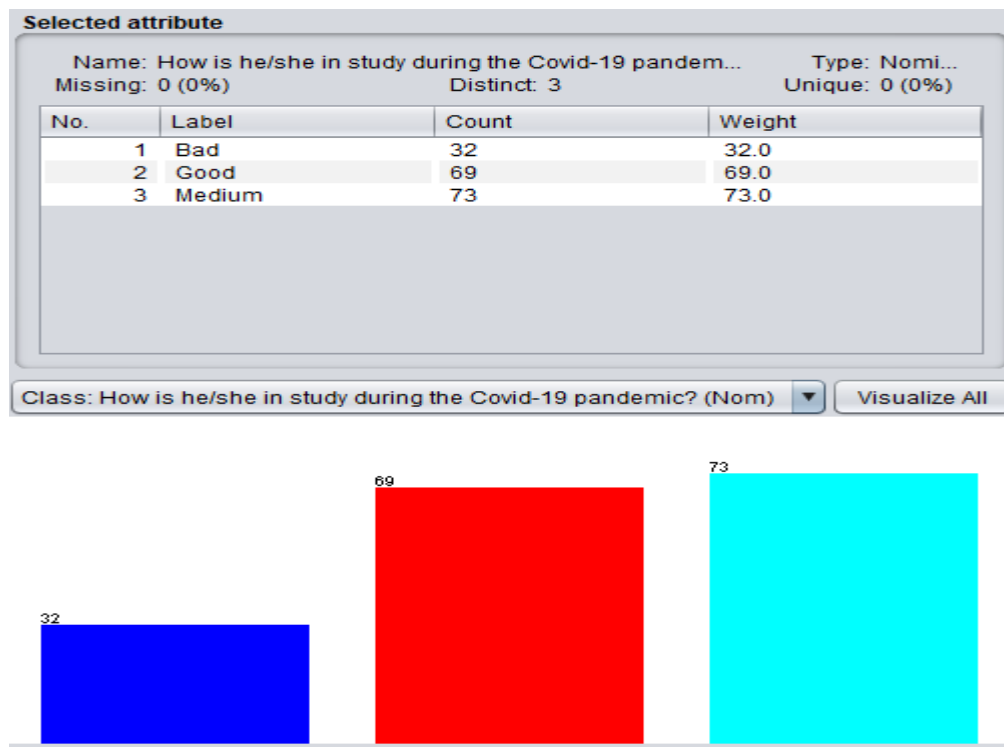


Figure 4.13: Data Visualization of How in Study during the Covid-19 pandemic

In table 4.11 mainly the input output of the 13th implementation have been analyzed. Here we find that 69 child good in study attract on social media and video games both or any one out of 174, 73 child medium in study attract on social media and video games both or any one out of 174 and 32 child bad in study attract on social media and video games both or any one out of 174. This table 4.11 mainly gives the full description of 13th implementation.

Table 4.11: Testing Set for How in Study during the Covid-19 pandemic

How in Study	Total number of how in study
Good	69
Medium	73
Bad	32

Step 14:

In the fourteenth implementation of my implementation I mainly find the result of the child how in study who are attract on social media and video games both or any one before the covid-19 by the help of data visualization. Here in figure 4.14 shows this. The result gives three category of student, which are Good, Medium and Bad.

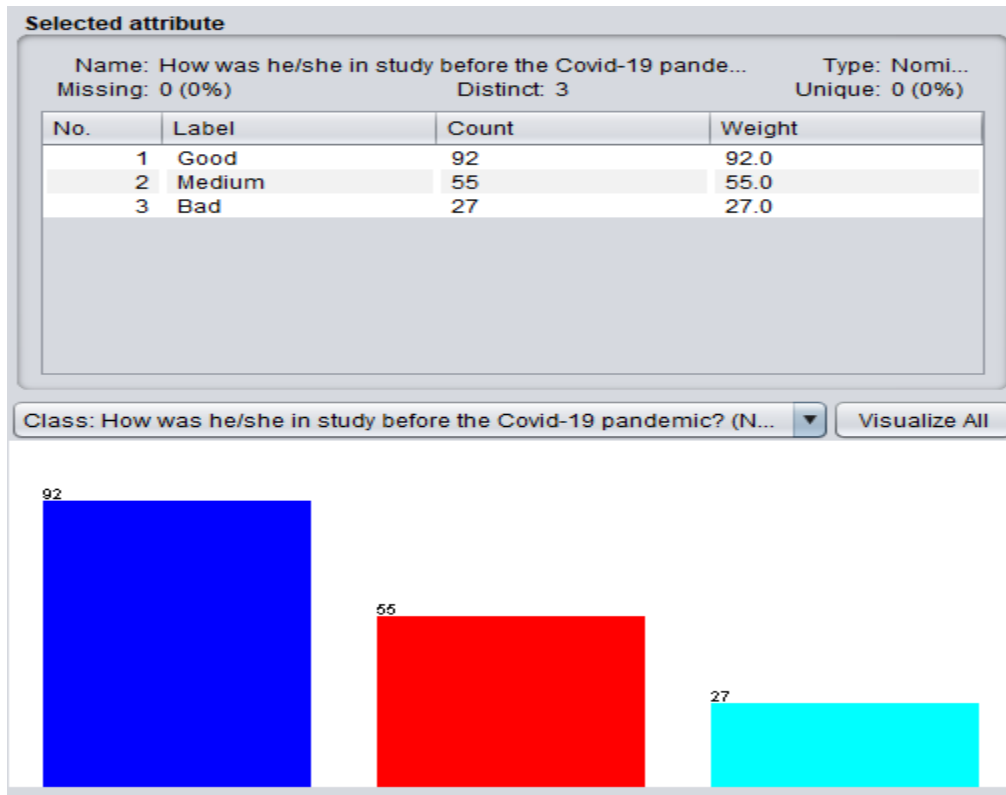


Figure 4.14: Data Visualization of How in Study before the Covid-19 pandemic

In table 4.12 mainly the input output of the 14th implementation have been analyzed. Here we find that 92 child good in study attract on social media and video games both or any one out of 174, 55 child medium in study attract on social media and video games both or any one out of 174 and 27 child bad in study attract on social media and video games both or any one out of 174. This table 4.12 mainly gives the full description of 14th implementation.

Table 4.12: Testing Set for How in Study before the Covid-19 pandemic

How in Study	Total number of how in study
Good	92
Medium	55
Bad	27

4.3 Discussion:

In the research, we can find many things from the result. Those are:

1. Here I work with only 170 plus child. If I can work with more child then the results will be better accurate.
2. In the data classification parts we can see the classification for different experiments.
3. Here all the classifications give the different results because of different values for different attribute and instance.
4. The project is done only for getting the classified data of the social media and video games attracted children. Here I find the Naïve Bayes classification for eight different conditions. Also I find here six different types of data visualization results for six different conditions.

CHAPTER 5

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

5.1 Impact on Society:

This research paper will impact on society so much. Because the problem here I discuss about is related to the society. Today's children are the future of the society. This research will inspire the parents of the society to take care of their children. Because by this research they will learn how social media, video games this kind of bad attractions will damage the life of the children.

5.2 Impact on Environment:

This research will impact on the environment too. Because many children do very bad things outside the home like smuggling, eve-teasing, rape, ragging etc. by specially attracting on social media. Also the children try to copy the violence of the game they played outside the home. Those kind of things hamper the environment of the society. This research will encourage the parents to control the bad attractions of the children.

5.3 Ethical Aspects:

In the research there present a lot of ethical aspects. Here in this research, I discuss about the effects of child bad attraction of social media and video games. Here, discuss about the health problem, mental problem and educational situation of the children who are attracted on those bad things. So, in my research there present some ethical aspects.

5.4 Sustainability Plan:

My research will sustain for a long time. Because this research can be used for a further study by the researcher. Also this research can be used for a statistical use by the society person. So there are sustainability plan of the research.

CHAPTER 6

SUMMARY, CONCLUSION, RECOMMENDATION AND IMPLICATION FOR FUTURE RESEARCH

6.1 Summary of the Study:

In this report, I have discussed about total work flow for the research and implementation of this method. In chapter 3, I tell about the research subject, data collection procedure and implementation step. In chapter 4, I show the experimental result after implementation. In chapter 5, I show the impact of the research and in chapter 6, I discussed about the summery and association for future research. Finally I have concised all attempt and likened the result and representing different classification.

6.2 Conclusions:

I have present here the approach of finding the results of the child social media and video games attraction also its difference between village and city, during and before COVID-19. I did not find any researches of the similar nature done focusing especially on this matter.

I also find the result of child health problem and mental problem have during and before COVID-19 for those activities using data mining. Finally I find here the result of the value of how many child are good, medium and bad in study who are attract on social media and video games during and before COVID-19.

6.3 Recommendations:

In the recommendation process I have to give recommendation to the supervisor sir to do the research. Also I have to give recommendation to the Google Form to take the data of the children.

6.4 Implication for Further Study:

In my research, I try to tell the classification process of the child social media and video games attractions during and before covid-19. But there are some limitations in my research. My research is limited with the few available dataset. With high scaled survey, more data can be classified that fits the scope of this study. Larger data from different set of people can give better accuracy. Therefore, providing the possibility of more accurate classification. I think my research is unique especially for this time. So I am sure that my research will provide a new invention and this will help a lot in social sector.

REFERENCES:

- [1] "Increasing danger of children's video game addiction", *New Age / The Most Popular Outspoken English Daily in Bangladesh*, 2022. [Online]. Available: <https://www.newagebd.net/article/45355/increasing-danger-of-childrens-video-game-addiction>. [Accessed: 13- Jan- 2022].
- [2] "Social media addiction harming the youth", *Social media addiction harming the youth / theindependentbd.com*, 2022. [Online]. Available: <https://m.theindependentbd.com/post/259667>. [Accessed: 13- Jan- 2022].
- [3] "Naive Bayes classifier", *En.wikipedia.org*, 2021. [Online]. Available: https://en.wikipedia.org/wiki/Naive_Bayes_classifier. [Accessed: 08- Jan- 2021].
- [4] R. R.P, K. Juliet and A. hana, "Text Classification for Student Data Set using Naive Bayes Classifier and KNN Classifier", *International Journal of Computer Trends and Technology*, vol. 43, no. 1, pp. 8-12, 2017. Available: 10.14445/22312803/ijctt-v43p103.
- [5] C. Et. al., "Prediction of Climate Change using SVM and Naïve Bayes Machine Learning Algorithms", *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, vol. 12, no. 2, 2021. Available: 10.17762/turcomat.v12i2.1856.
- [6] V. Betton and V. Tomlinson, "Social media can help in recovery – but are mental health practitioners up to speed?", *Mental Health and Social Inclusion*, vol. 17, no. 4, pp. 215-219, 2013. Available: 10.1108/mhsi-06-2013-0021.
- [7] C. Baccarella, T. Wagner, J. Kietzmann and I. McCarthy, "Social media? It's serious! Understanding the dark side of social media", *European Management Journal*, vol. 36, no. 4, pp. 431-438, 2018. Available: 10.1016/j.emj.2018.07.002.
- [8] J. Ouwerkerk and B. Johnson, "Motives for Online Friending and Following: The Dark Side of Social Network Site Connections", *Social Media + Society*, vol. 2, no. 3, p. 205630511666421, 2016. Available: 10.1177/2056305116664219.
- [9] A. Sundaram, "The Dark Side of Social Media: A Reality Becoming More Contemporary by the Day", *Asian Social Science*, vol. 14, no. 1, p. 23, 2017. Available: 10.5539/ass.v14n1p23.
- [10] N. McCrae, S. Gettings and E. Purssell, "Social Media and Depressive Symptoms in Childhood and Adolescence: A Systematic Review", *Adolescent Research Review*, vol. 2, no. 4, pp. 315-330, 2017. Available: 10.1007/s40894-017-0053-4.
- [11] D. Gentile, "The Multiple Dimensions of Video Game Effects", *Child Development Perspectives*, vol. 5, no. 2, pp. 75-81, 2011. Available: 10.1111/j.1750-8606.2011.00159.x.
- [12] S. Silvern and P. Williamson, "The effects of video game play on young children's aggression, fantasy, and prosocial behavior", *Journal of Applied Developmental Psychology*, vol. 8, no. 4, pp. 453-462, 1987. Available: 10.1016/0193-3973(87)90033-5.

APPENDICES:

Some implementation work processes screenshots of weka are given below:

Weka Explorer - Select attributes

Relation: Child's Social Media and Video Game Attraction
Instances: 174
Attributes: 15
Sum of weights: 174

Attributes

No.	Name
1	Timestamp
2	Name of the child?
3	Gender
4	Age
5	Which area does he/she live in?
6	Does he/she attract on social media during the Covid-19 pandemic?
7	Did he/she attract on social media before the Covid-19 pandemic?
8	Does he/she attract on video games during the Covid-19 pandemic?
9	Did he/she attract on video games before the Covid-19 pandemic?
10	Does he/she has any health problem like eye problem or any other d...
11	Did he/she has any health problem like eye problem or any other bef...
12	Does he/she has any mental problem during the Covid-19 pandemic?
13	Did he/she has any mental problem before the Covid-19 pandemic?
14	How is he/she in study during the Covid-19 pandemic?
15	How was he/she in study before the Covid-19 pandemic?

Selected attribute

Name: Timestamp
Missing: 0 (0%)
Distinct: 174
Type: Nominal
Unique: 174 (100%)

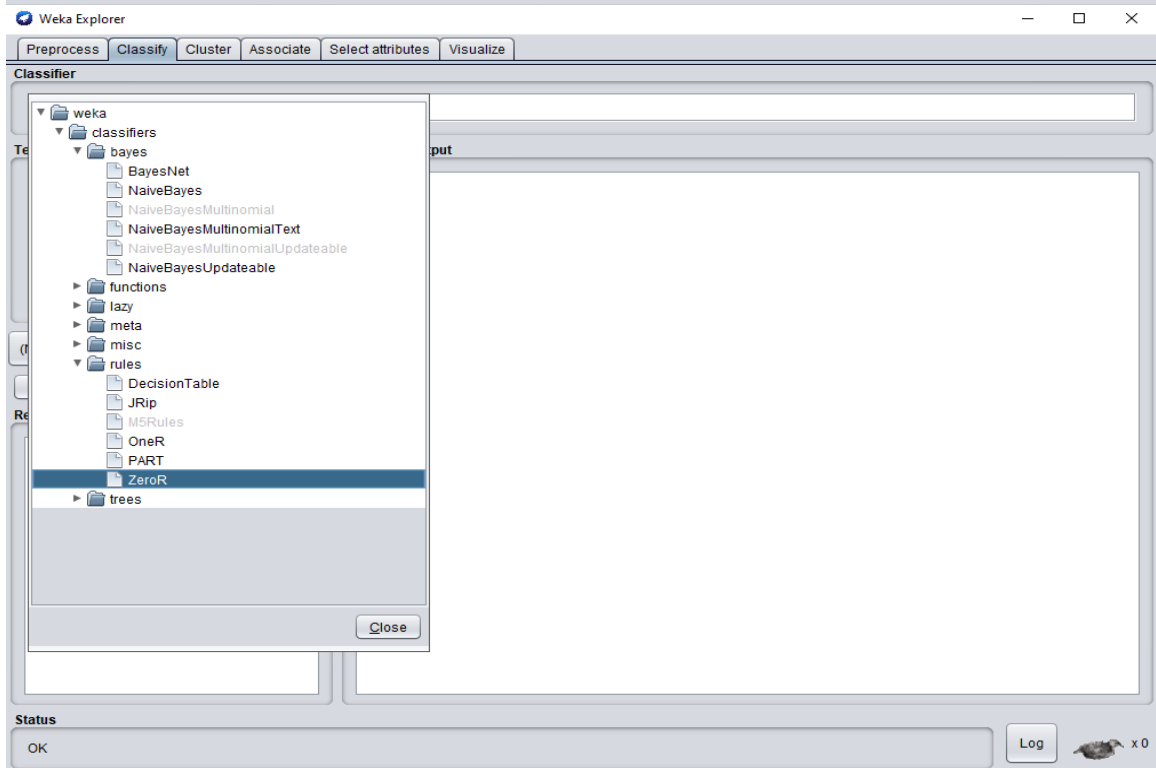
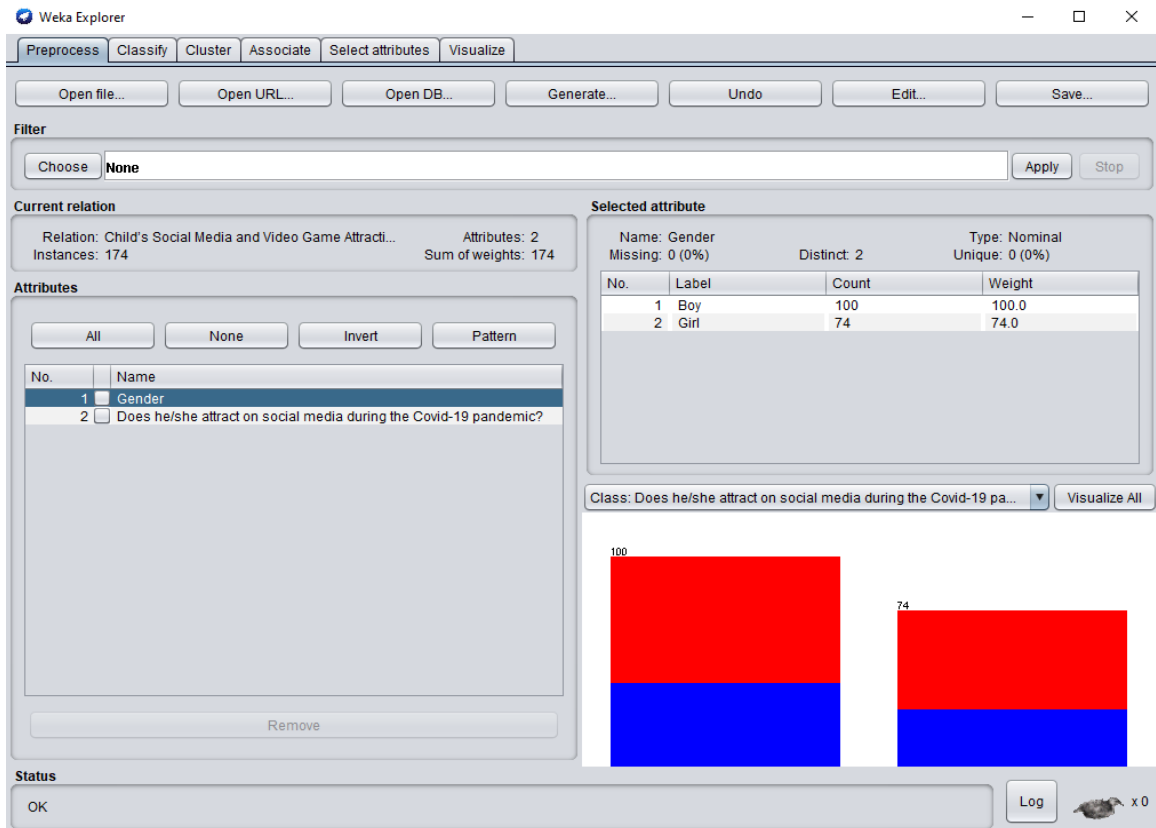
No.	Label	Count	Weight
1	2021/09/23 5:09:29 ...	1	1.0
2	2021/09/23 5:12:00 ...	1	1.0
3	2021/09/23 5:12:32 ...	1	1.0
4	2021/09/23 5:14:31 ...	1	1.0
5	2021/09/23 6:05:15 ...	1	1.0
6	2021/09/23 7:34:03 ...	1	1.0
7	2021/09/23 9:59:48 ...	1	1.0
8	2021/09/23 10:01:3...	1	1.0
9	2021/09/23 11:51:4...	1	1.0
10	2021/09/23 11:53:1...	1	1.0

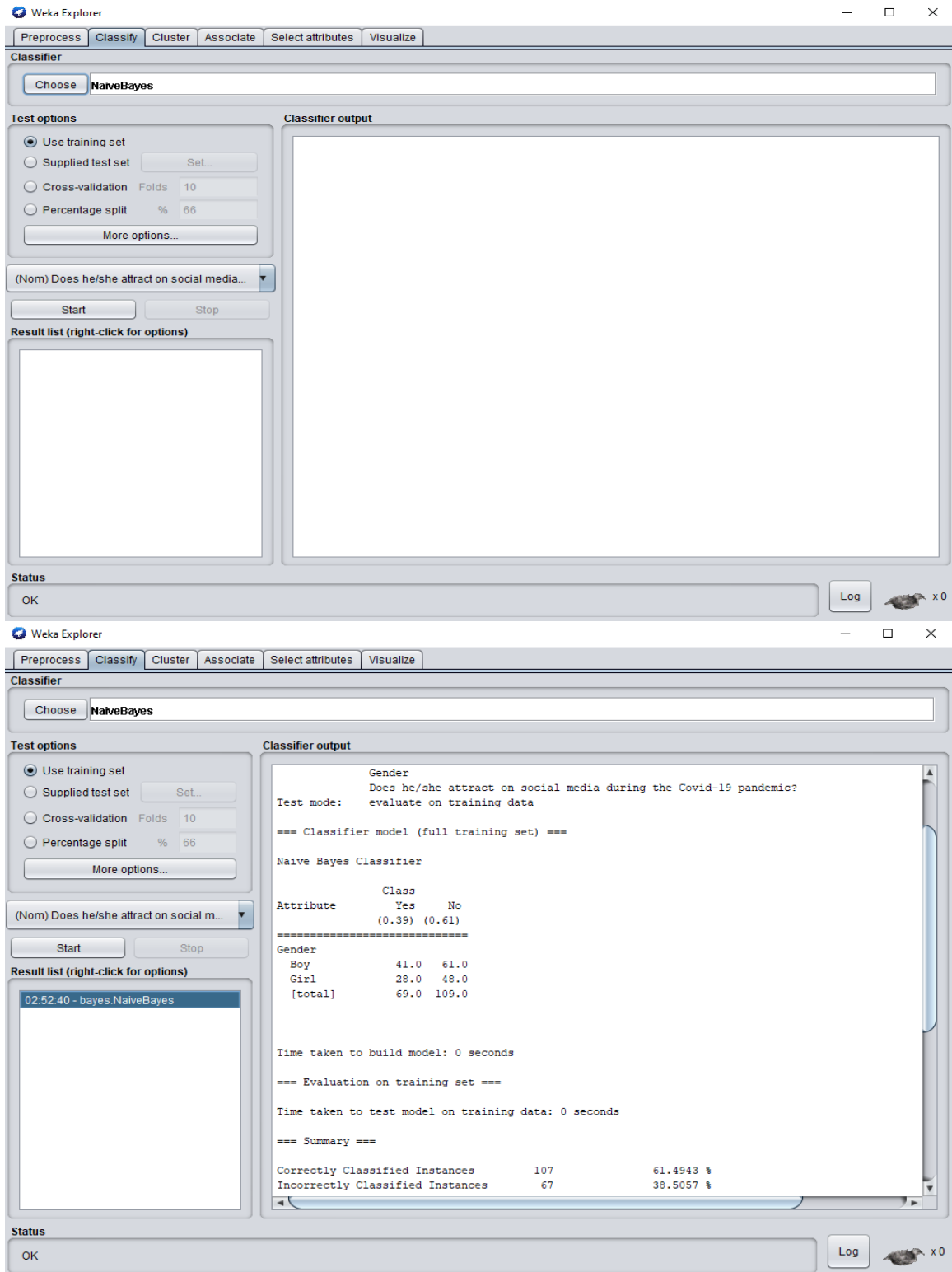
Class: How was he/she in study before the Covid-19 pandemic? (N...)

Viewer

Relation: Child's Social Media and Video Game Attraction

No.	1: Timestamp	2: Name of the child?	3: Gender	4: Age	5: Which area does he/she live in?	6: Does he/she attract on social media during the Covid-19 pandemic?	7: Did he/she attract on social media before the Covid-19 pandemic?	8: Does he/she attract on video games during the Covid-19 pandemic?	9: Did he/she attract on video games before the Covid-19 pandemic?	10: Does he/she has any health problem like eye problem or any other d...	11: Did he/she has any health problem like eye problem or any other bef...	12: Does he/she has any mental problem during the Covid-19 pandemic?	13: Did he/she has any mental problem before the Covid-19 pandemic?	14: How is he/she in study during the Covid-19 pandemic?	15: How was he/she in study before the Covid-19 pandemic?
1	2021/09/23...	Tomal	Boy	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
2	2021/09/23...	Monti	Girl	5-9	Village	No	No	No	No	No	No	No	No	No	No
3	2021/09/23...	Probhat	Boy	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
4	2021/09/23...	Priyanjali Das	Girl	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
5	2021/09/23...	Lipta das	Boy	5-9	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
6	2021/09/23...	Mahim	Boy	5-9	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
7	2021/09/23...	Pranto sen	Boy	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
8	2021/09/23...	Rajdir Deb	Boy	10-14	City	No	No	No	No	No	No	No	No	No	No
9	2021/09/23...	Santa sen	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
10	2021/09/23...	Antu sen	Boy	5-9	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
11	2021/09/24...	Sakvan Tahmid	Boy	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
12	2021/09/24...	Julkar Nayeem	Boy	10-14	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
13	2021/10/05...	Eman hossen	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
14	2021/10/05...	Santo day	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
15	2021/10/05...	Anik roy	Boy	10-14	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
16	2021/10/05...	Amit roy	Boy	10-14	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
17	2021/10/06...	Dipto Dey	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
18	2021/10/06...	Simanto Dey	Boy	5-9	City	No	No	No	No	No	No	No	No	No	No
19	2021/10/06...	Sunali	Girl	5-9	Village	No	No	No	No	No	No	No	No	No	No
20	2021/10/06...	Sumi	Girl	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
21	2022/01/12...	Birat Ghosh	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
22	2022/01/12...	Tasin	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
23	2022/01/12...	Nawaz	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
24	2022/01/12...	Naif	Boy	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
25	2022/01/12...	Asma Akter	Girl	10-14	Village	Yes	Yes	Yes	Yes	No	No	No	No	No	No
26	2022/01/12...	Rohan	Boy	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
27	2022/01/12...	Aditto Ghosh	Boy	5-9	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No
28	2022/01/12...	Sima Akter	Girl	5-9	Village	No	No	No	No	No	No	No	No	No	No
29	2022/01/12...	Sau...	Girl	10-14	City	Yes	Yes	Yes	Yes	No	No	No	No	No	No





Other classifications are done with the same process of last four screenshots.

Plagiarism Report:

Security

ORIGINALITY REPORT

6%	%	%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Istanbul Aydin University Student Paper	2%
2	Submitted to Adelphi University Student Paper	1%
3	Submitted to Panjab University Student Paper	1%
4	Submitted to Daffodil International University Student Paper	1%
5	Submitted to College of Marin Student Paper	<1%
6	Submitted to University of Westminster Student Paper	<1%
7	Submitted to TechKnowledge Student Paper	<1%
8	Submitted to University of Colorado, Colorado Springs Student Paper	<1%

Exclude quotes	Off
Exclude bibliography	Off

Exclude matches	Off
-----------------	-----