

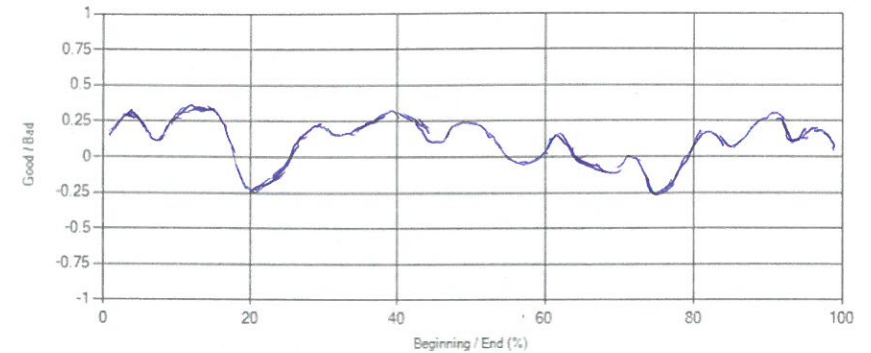
### Background:

I'm using a Sentiment Analysis engine to process a number of texts (scripts, books, plays, etc...) in an attempt to try and classify them into categories as proposed by writer Kurt Vonnegut. The engine processes natural language, assigning each sentence a score based largely, but not wholly, on how positive or negative the words in the sentence are. Scores are between -1 (negative sentiment) and 1 (positive sentiment) at points throughout the course of the text. The scores for ranges of sentences are averaged to produce a smoothed graph.

As a sub-study, I am looking at the accuracy of the produced graphs when compared to people's expectations of given texts, specifically various Shakespeare plays.

### A Midsummer Night's Dream

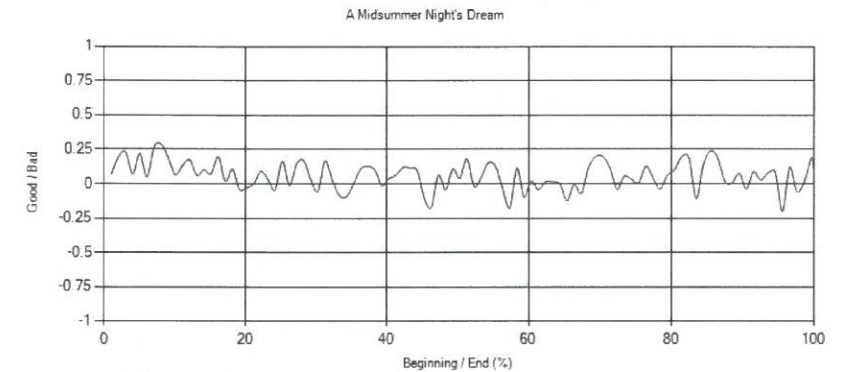
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

As the script is a comedy it is mostly positive. However the romance subplots are broadly negative.

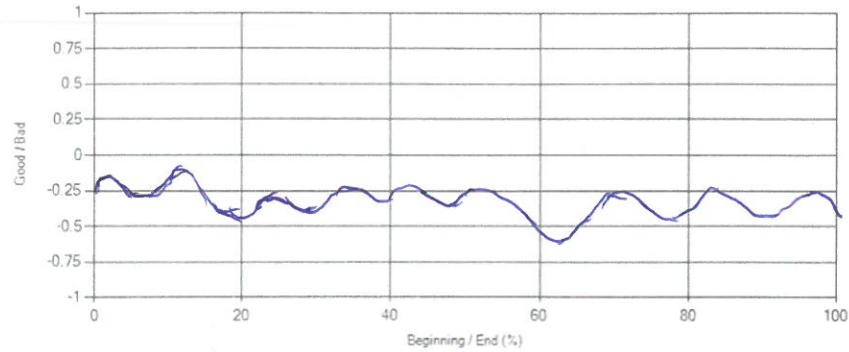
This graph produced. Can you justify differences between this and your graph?



I think there is a larger tonal dissonance than indicated in the second graph.

## Hamlet

Please draw what you would expect the graph of this play to look like:

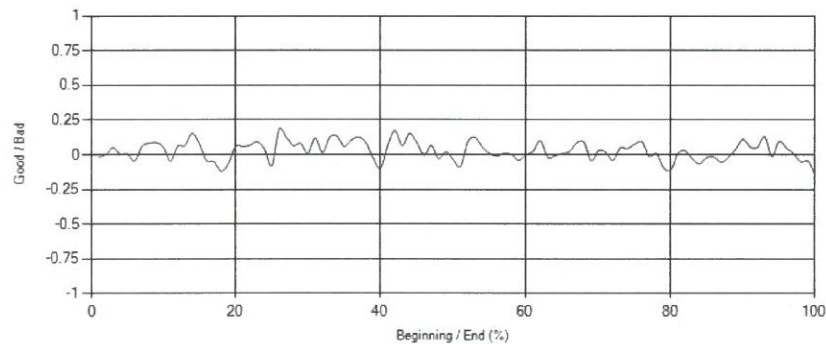


Can you explain briefly the reasons for any peaks or troughs in your graph?

THE PLAY IS BROADLY LESS TURBULENT IN ITS NEGATIVE AND POSITIVE ELEMENT, AS ITS A BROADLY UPSETTING PLAY.

This graph produced. Can you justify differences between this and your graph?

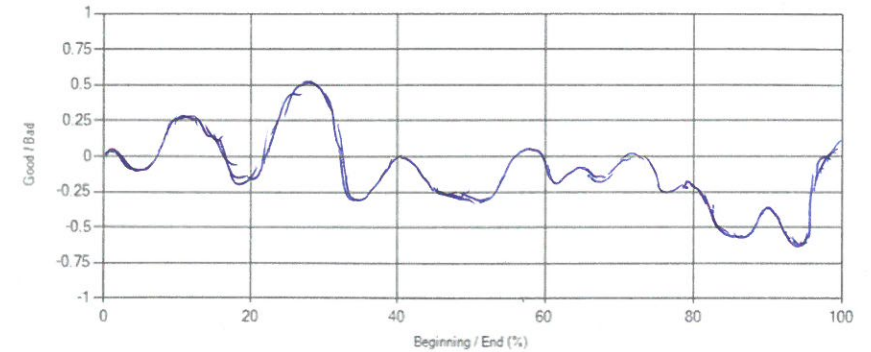
Hamlet



I THINK THE PLOT BEING MORE NEGATIVELY ALIGNED THAN IS INDICATED BY THE SECOND GRAPH

## Macbeth

Please draw what you would expect the graph of this play to look like:

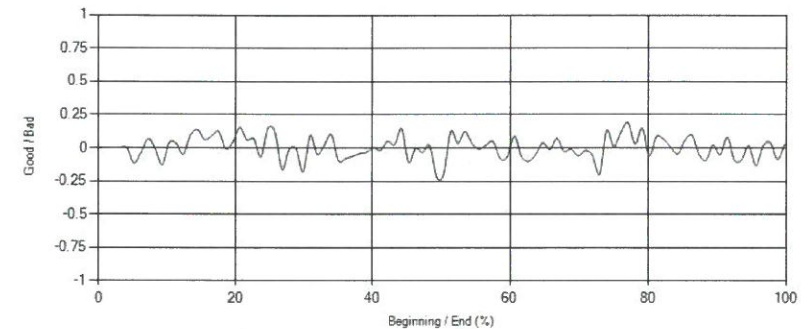


Can you explain briefly the reasons for any peaks or troughs in your graph?

THE PLOT HAS A CONSISTANT DOWNWARD ARC, HOWEVER ENDS ON A POSITIVE NOTE.

This graph produced. Can you justify differences between this and your graph?

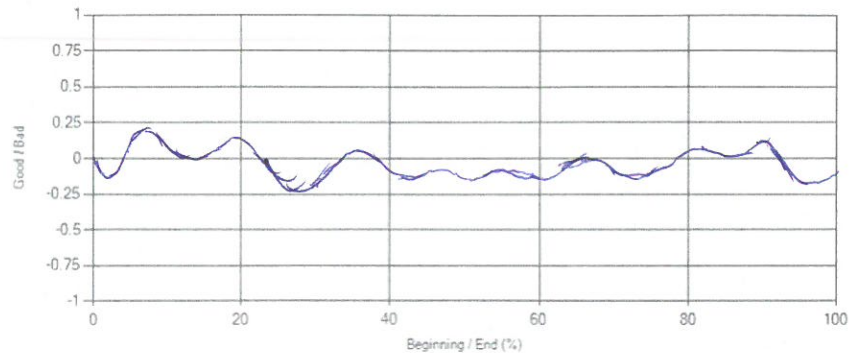
Macbeth



I THINK THE SECOND GRAPH DOES NOT SHOW THE NUANCE OF THE TONE OF THE PLAY

## Romeo and Juliet

Please draw what you would expect the graph of this play to look like:

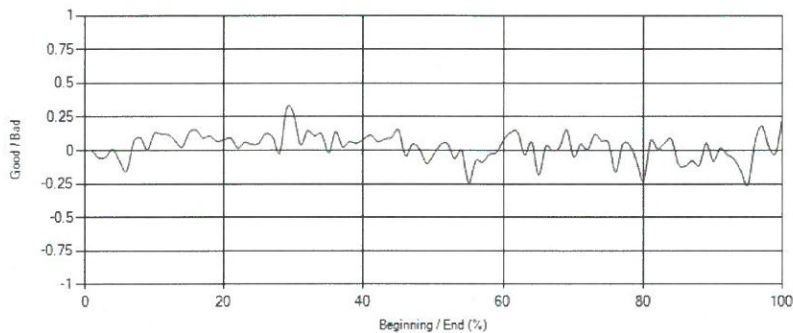


Can you explain briefly the reasons for any peaks or troughs in your graph?

THE PLAY IS ~~CONSIDERED~~ LESS TURBULANT IN ITS TONE THAN OTHER PLAYS

This graph produced. Can you justify differences between this and your graph?

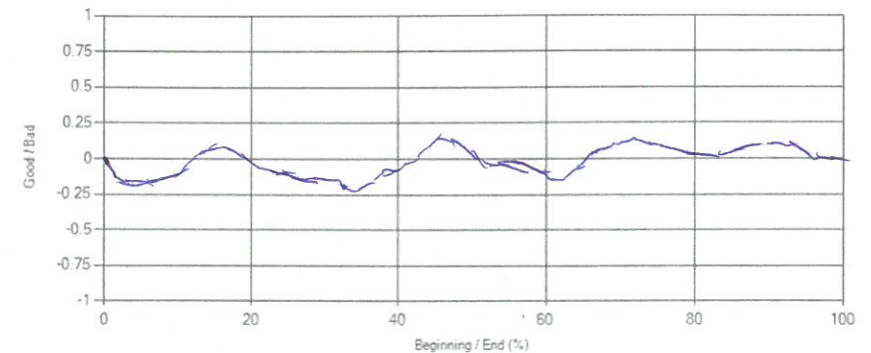
Romeo and Juliet



I THINK PERHAPS THE SECOND GRAPH DOESN'T CONSIDER A SUBJECTIVE READING OF THE PLAY

## The Tempest

Please draw what you would expect the graph of this play to look like:

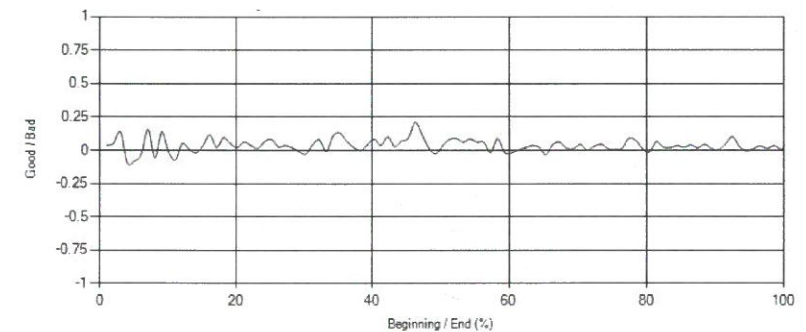


Can you explain briefly the reasons for any peaks or troughs in your graph?

THE PLAY REMAINS TONALLY CONGESTANT.

This graph produced. Can you justify differences between this and your graph?

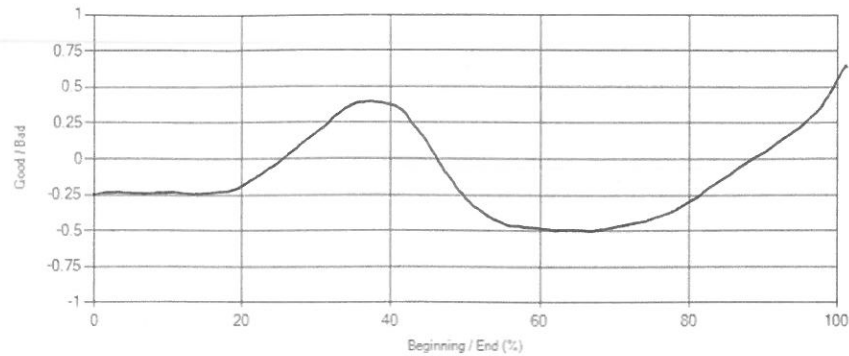
The Tempest



I THINK THE TWO GRAPHS ARE FAIRLY SIMILAR.

## A Midsummer Night's Dream

Please draw what you would expect the graph of this play to look like:

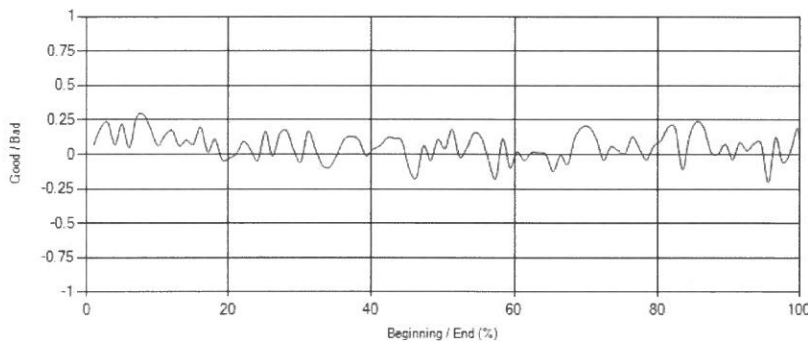


Can you explain briefly the reasons for any peaks or troughs in your graph?

None of the characters are happy to begin with, but as the play progresses they enter an artificial state of joy, which is replaced by true joy in the conclusion.

This graph produced. Can you justify differences between this and your graph?

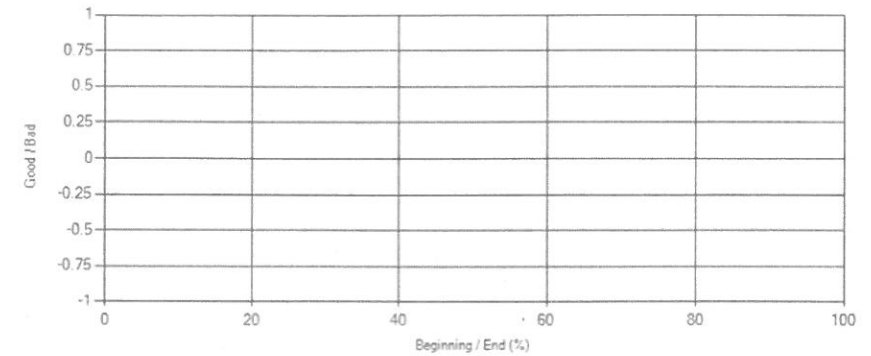
A Midsummer Night's Dream



This graph does not accurately represent the disparity of the characters' emotions, in my opinion. Whether these emotions were artificially induced or not, they are more extreme than is seen here.

## Hamlet

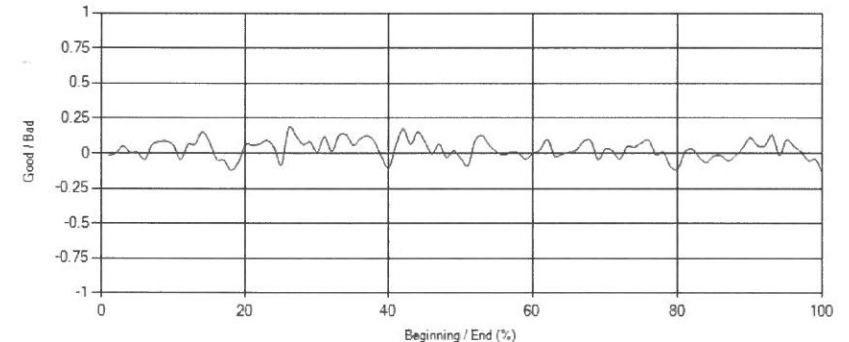
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

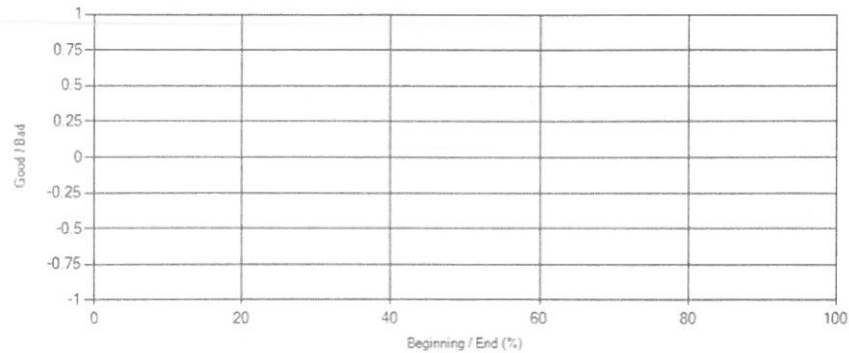
This graph produced. Can you justify differences between this and your graph?

Hamlet



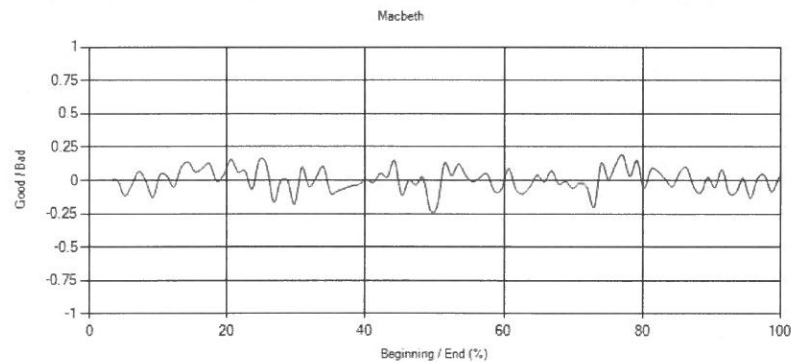
## Macbeth

Please draw what you would expect the graph of this play to look like:



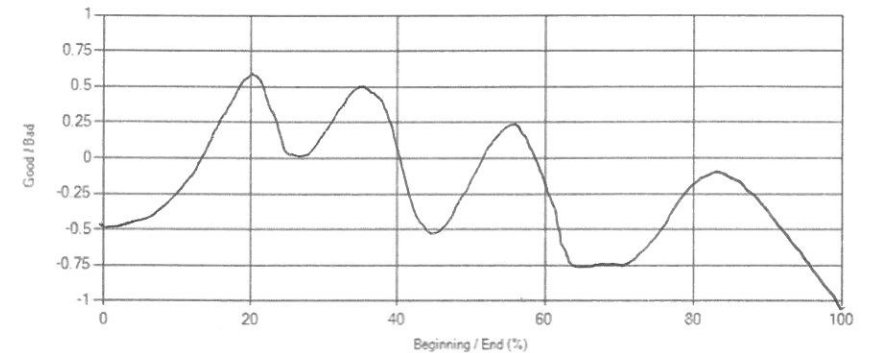
Can you explain briefly the reasons for any peaks or troughs in your graph?

This graph produced. Can you justify differences between this and your graph?



## Romeo and Juliet

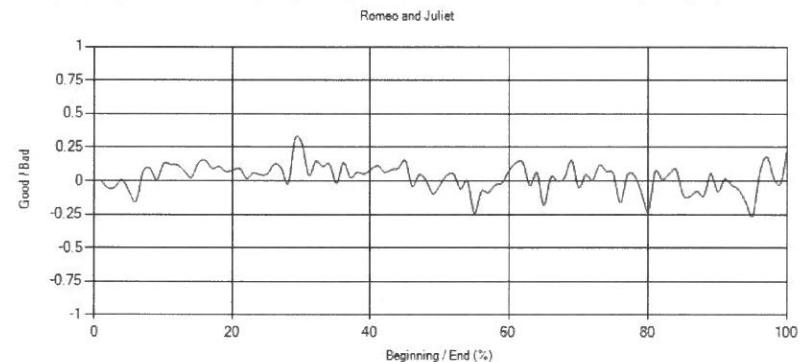
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

The play switches between love and tragedy frequently, slowly leaning towards the latter over time

This graph produced. Can you justify differences between this and your graph?

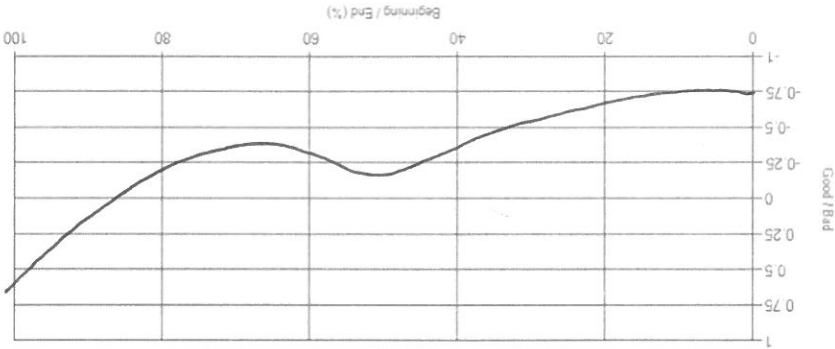


The graph ends on a slightly high note; the play does not. While this graph better represents the peaks and dips of the play, the primary focus of the ending is objectively tragedy.



The Tempest

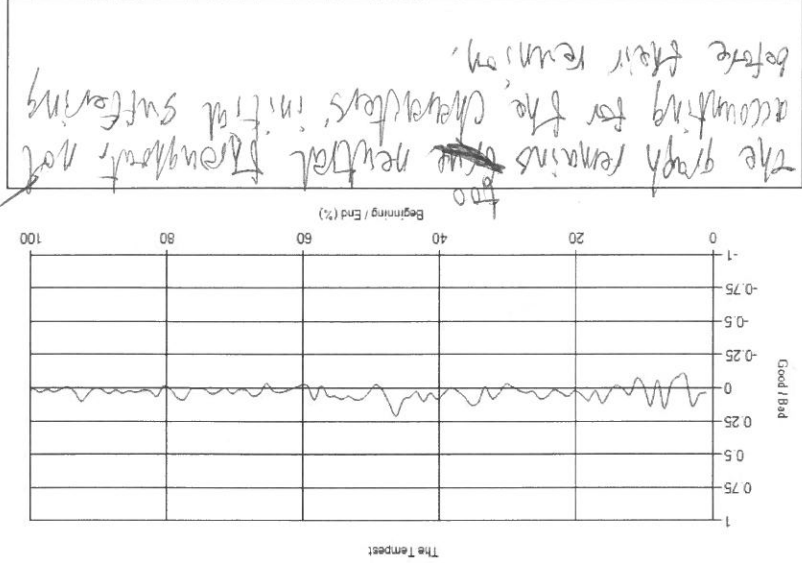
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

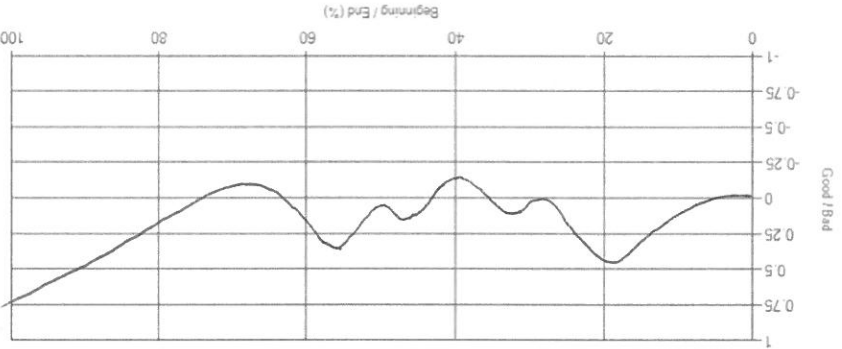
The narrative focuses on reunion, with all the characters coming together in peace at the end of the play

This graph produced. Can you justify differences between this and your graph?



Twelfth Night

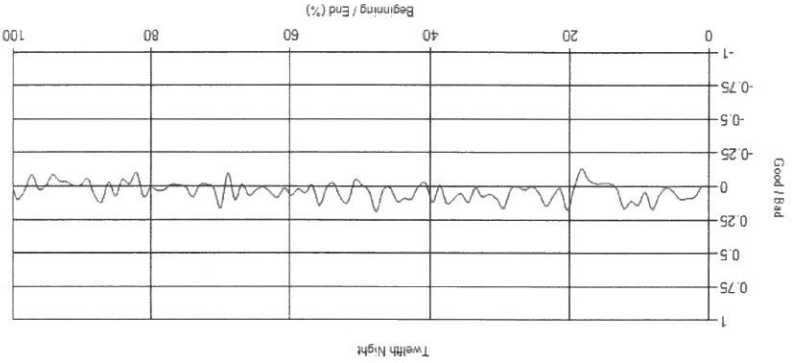
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

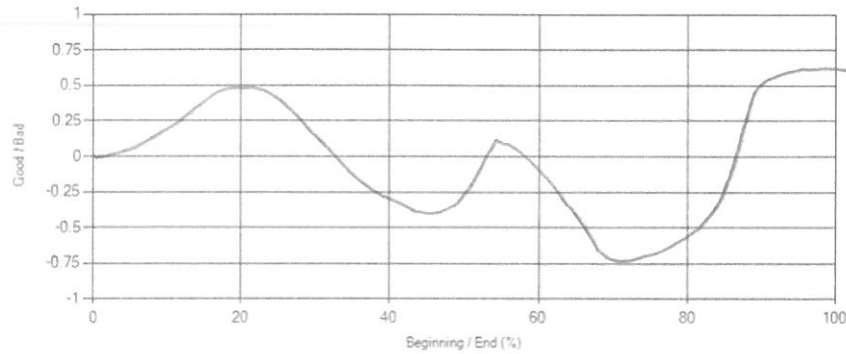
While the characters disguise themselves and their feelings, they are never consistently happy, only finding joy when all is revealed at the end.

This graph produced. Can you justify differences between this and your graph?



## Macbeth

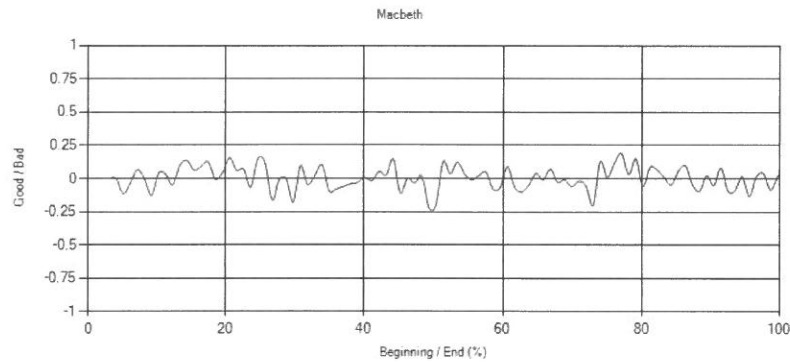
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

Goodness until Duncan dead, then all the  
bads until Macbeth KO, then all good

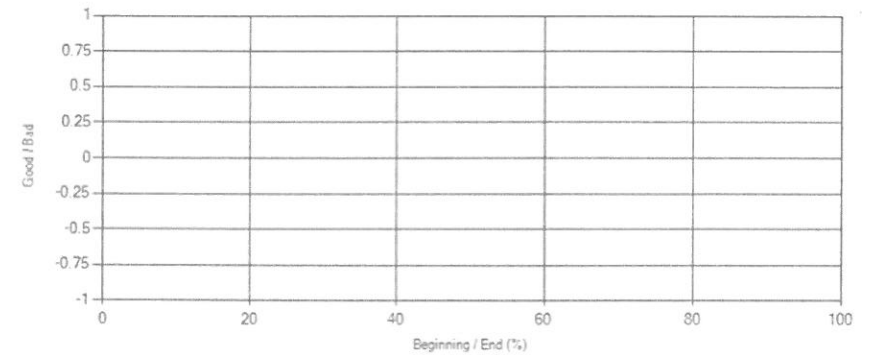
This graph produced. Can you justify differences between this and your graph?



Semantic analysis is imperfect, big  
Sad

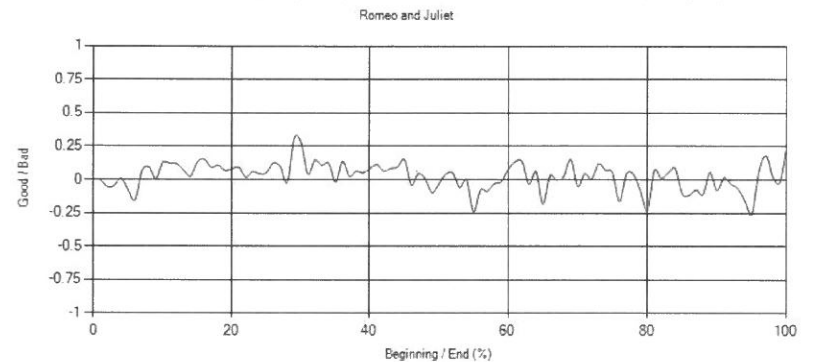
## Romeo and Juliet

Please draw what you would expect the graph of this play to look like:



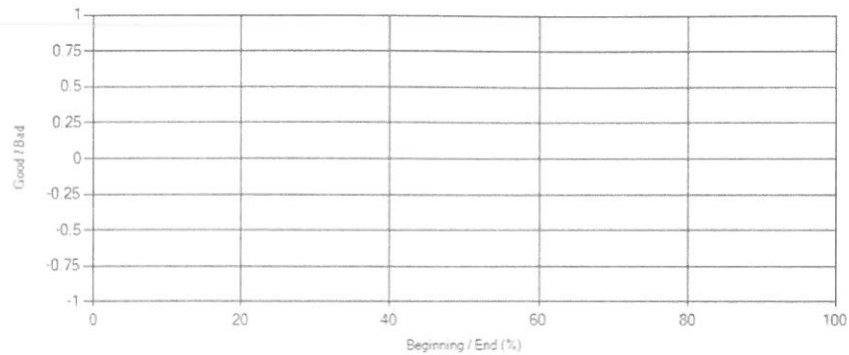
Can you explain briefly the reasons for any peaks or troughs in your graph?

This graph produced. Can you justify differences between this and your graph?



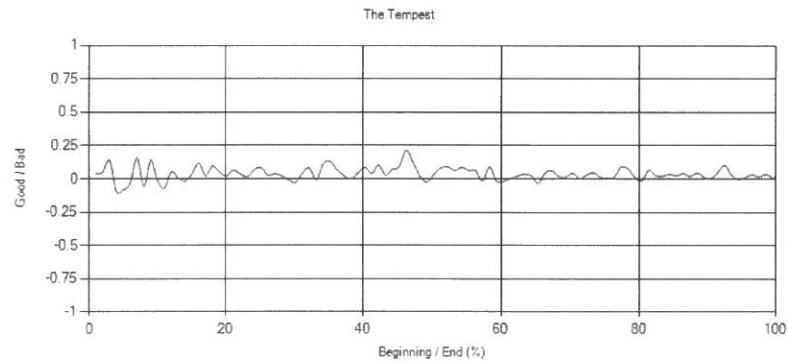
## The Tempest

Please draw what you would expect the graph of this play to look like:



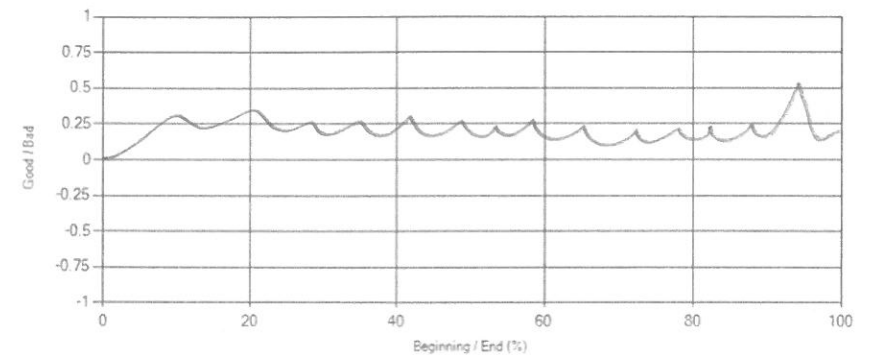
Can you explain briefly the reasons for any peaks or troughs in your graph?

This graph produced. Can you justify differences between this and your graph?



## Twelfth Night

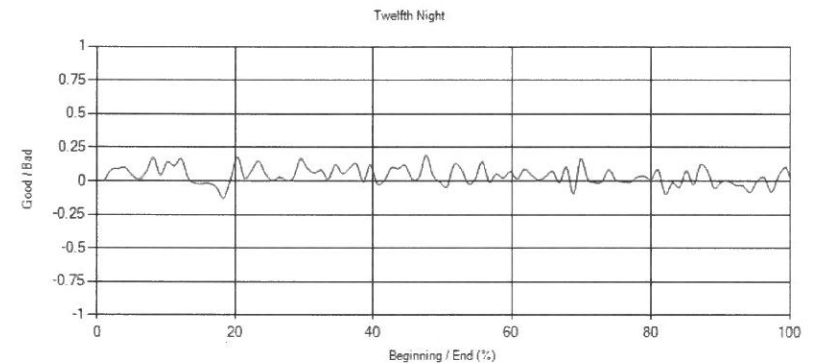
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

It's a comedy!

This graph produced. Can you justify differences between this and your graph?



Kinda quite good really, mainly positive



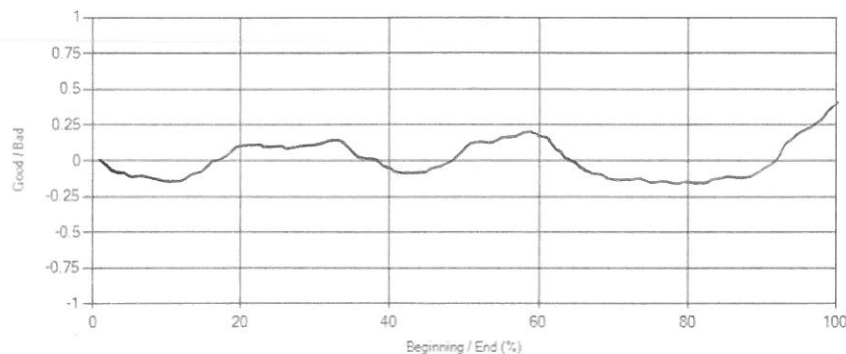
90

Luca Davies  
34653856

SCC.300 Computer Science Project:  
Using Sentiment Analysis to Graph the Shape of Stories

## A Midsummer Night's Dream

Please draw what you would expect the graph of this play to look like:

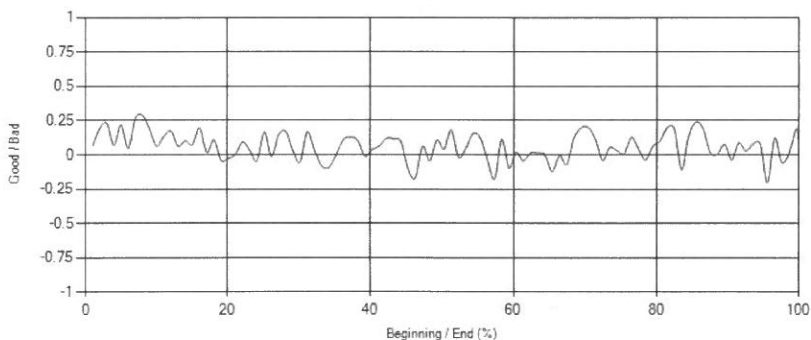


Can you explain briefly the reasons for any peaks or troughs in your graph?

lots of confrontation to comedic moments  
and they all live happily ever after

This graph produced. Can you justify differences between this and your graph?

A Midsummer Night's Dream



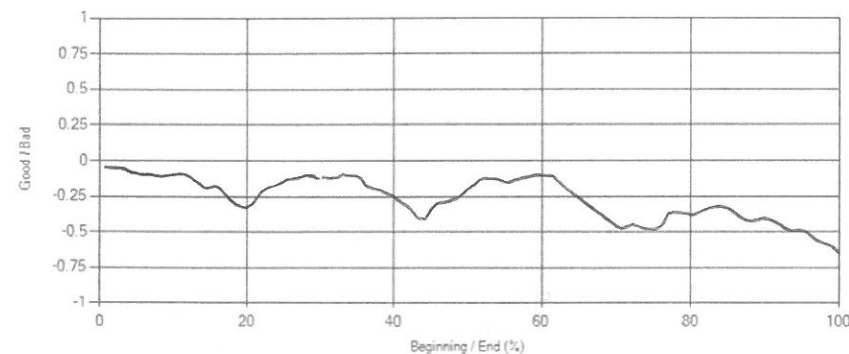
The difference is due to the program  
not having personal experience / empathy  
which is kinda crucial in experiencing  
art!

Luca Davies  
34653856

SCC.300 Computer Science Project:  
Using Sentiment Analysis to Graph the Shape of Stories

## Hamlet

Please draw what you would expect the graph of this play to look like:

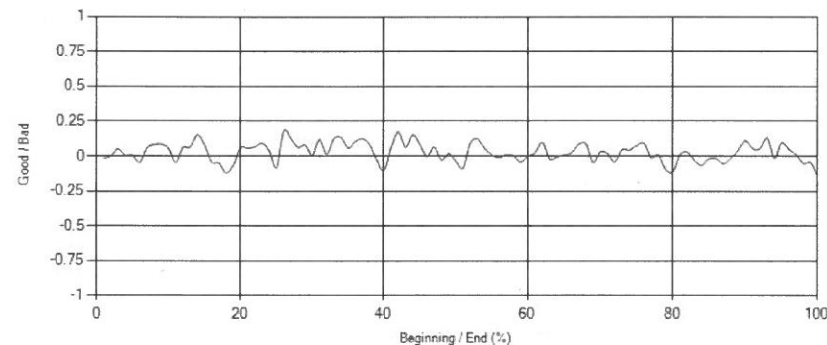


Can you explain briefly the reasons for any peaks or troughs in your graph?

Just a whole load of deaths and madness

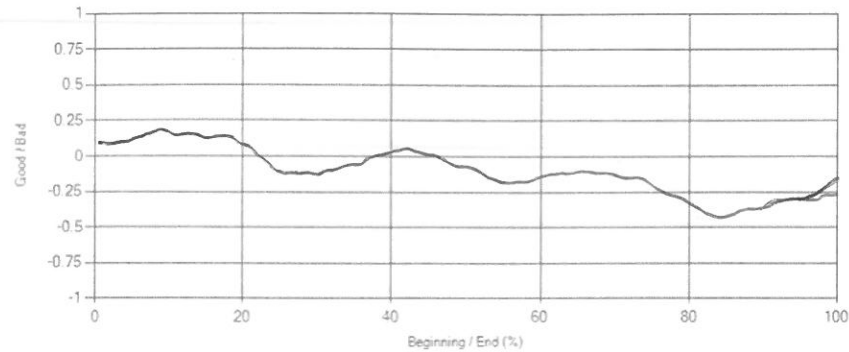
This graph produced. Can you justify differences between this and your graph?

Hamlet



## Macbeth

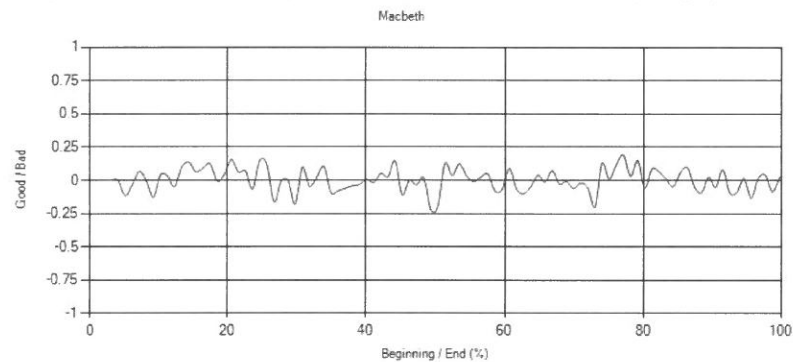
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

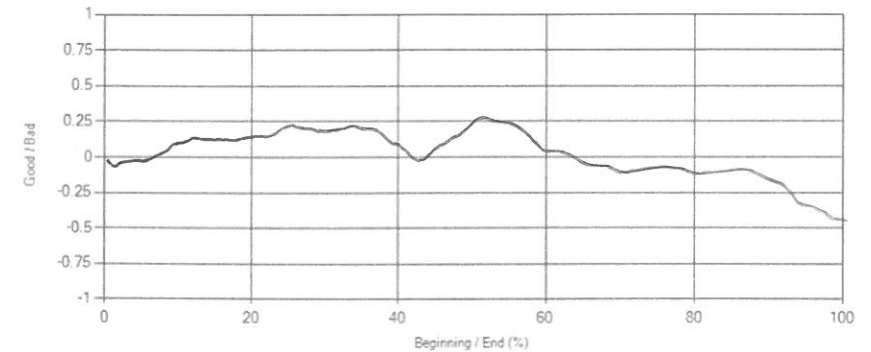
Starts hopeful and then lots of murder  
justice is served at the end though

This graph produced. Can you justify differences between this and your graph?



## Romeo and Juliet

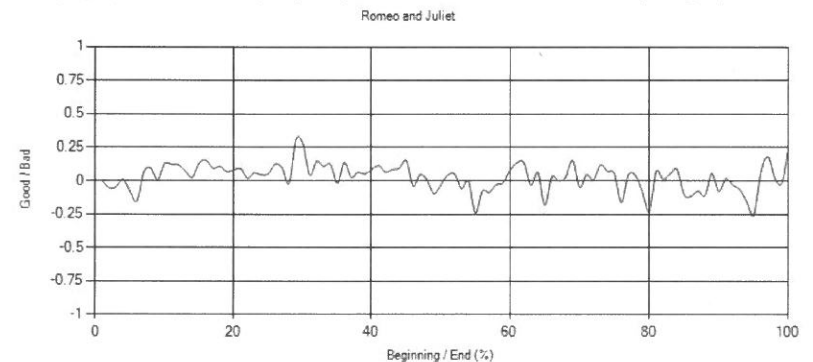
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

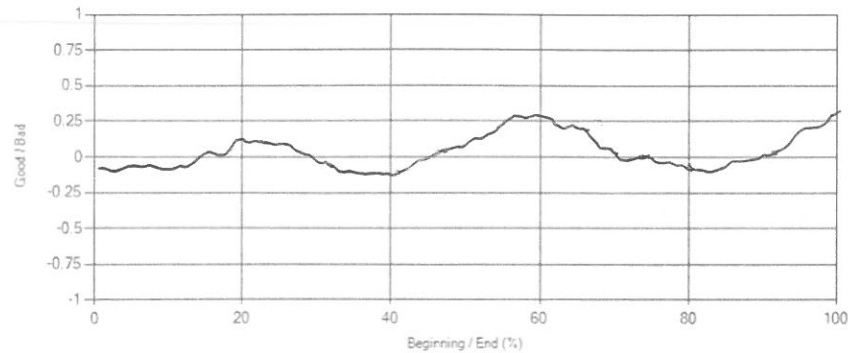
↑ love ↓ fights + death

This graph produced. Can you justify differences between this and your graph?



## The Tempest

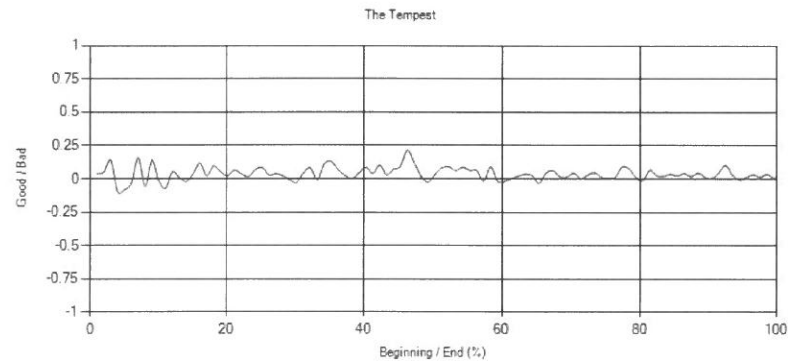
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

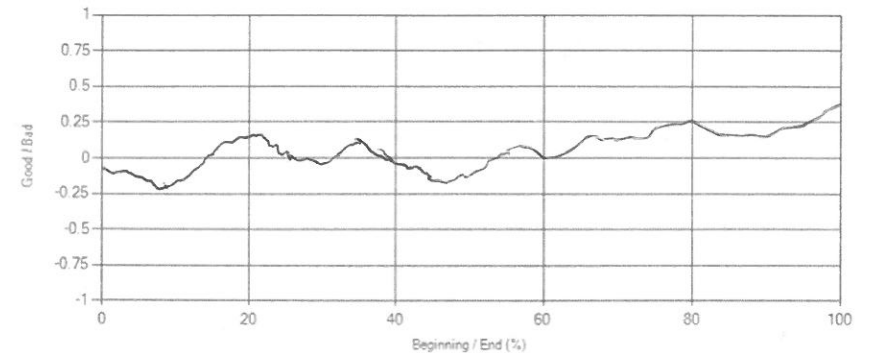
Comedic trickery and then some murder plots but it has a wholesome end.

This graph produced. Can you justify differences between this and your graph?



## Twelfth Night

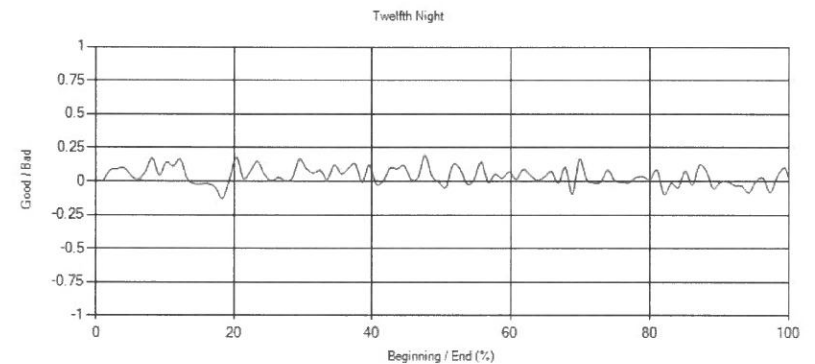
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

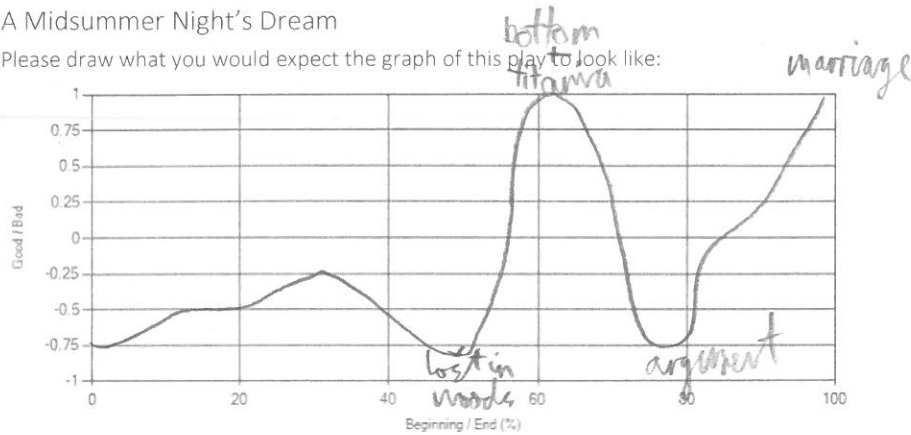
Comedic confusion but also some grief

This graph produced. Can you justify differences between this and your graph?



### A Midsummer Night's Dream

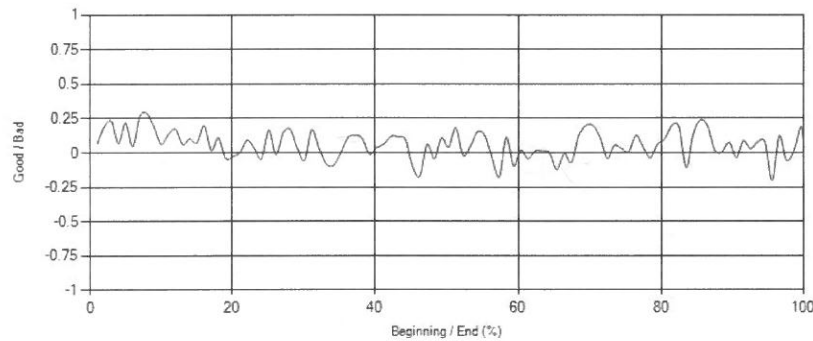
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

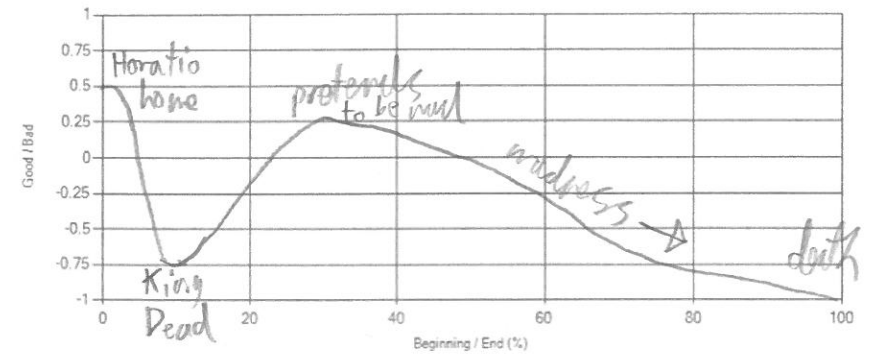
This graph produced. Can you justify differences between this and your graph?

A Midsummer Night's Dream



### Hamlet

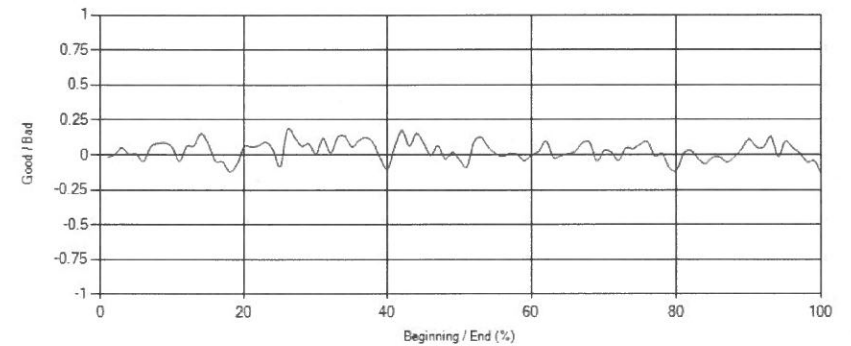
Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

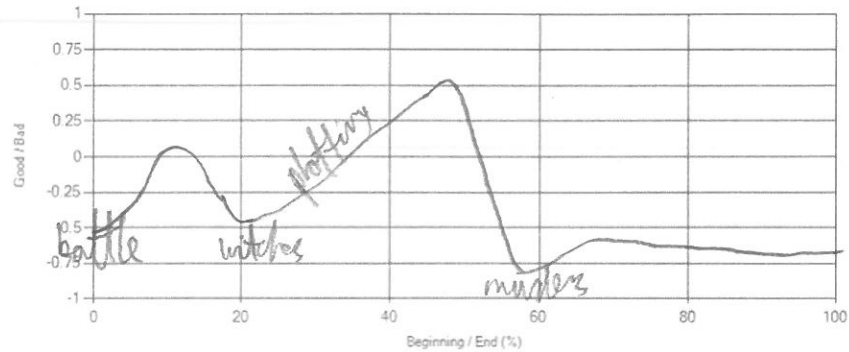
This graph produced. Can you justify differences between this and your graph?

Hamlet



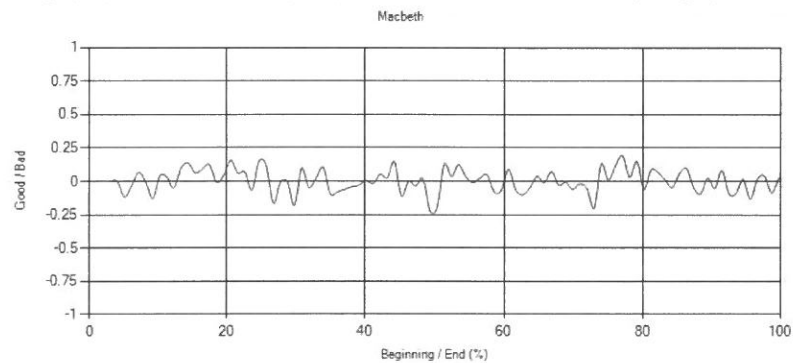
## Macbeth

Please draw what you would expect the graph of this play to look like:



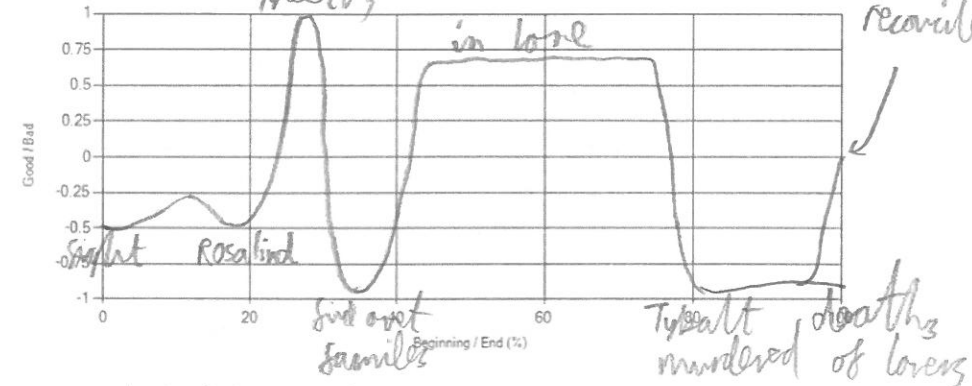
Can you explain briefly the reasons for any peaks or troughs in your graph?

This graph produced. Can you justify differences between this and your graph?



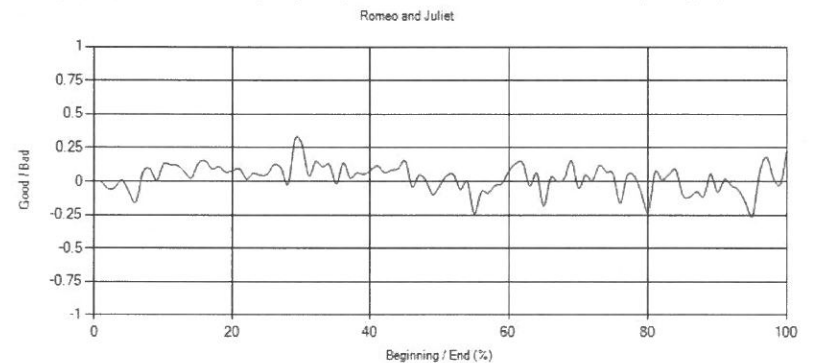
## Romeo and Juliet

Please draw what you would expect the graph of this play to look like:



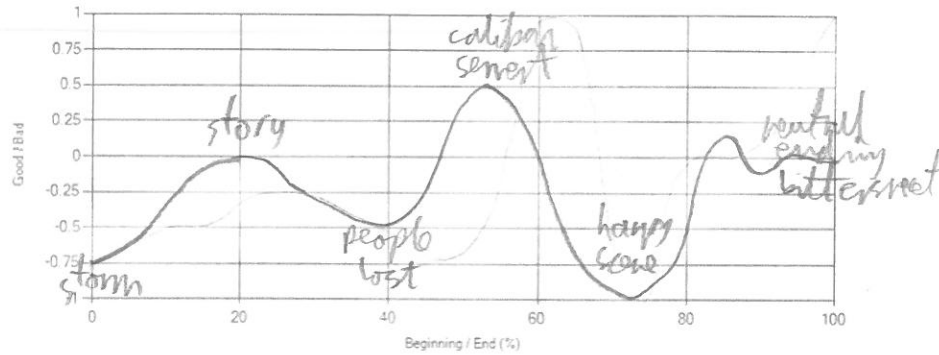
Can you explain briefly the reasons for any peaks or troughs in your graph?

This graph produced. Can you justify differences between this and your graph?



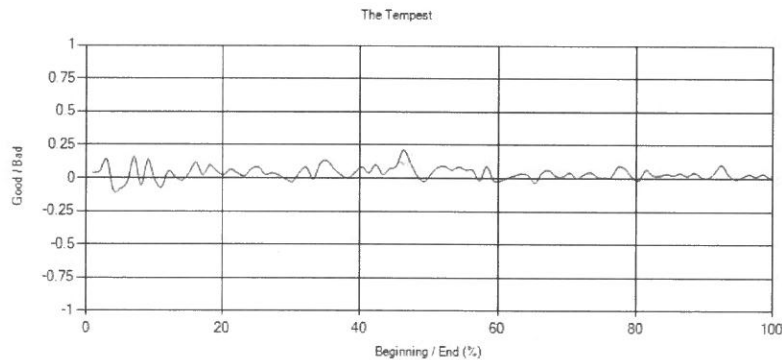
## The Tempest

Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

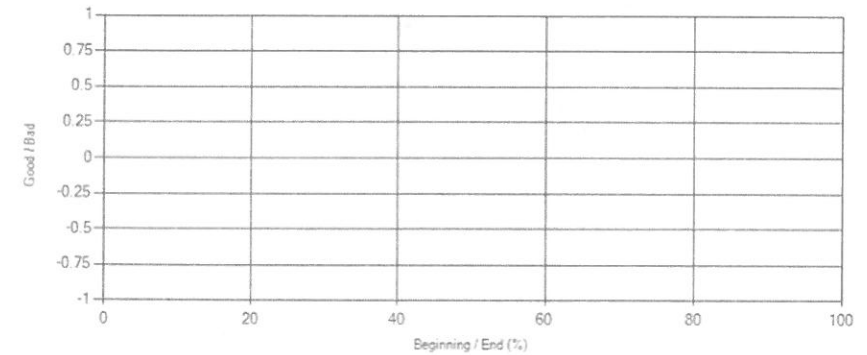
This graph produced. Can you justify differences between this and your graph?



Generally, poor method for scripts as dialogue, not description.  
Also, I know the order of events but not where they happen so lack of correlation.

## Twelfth Night

Please draw what you would expect the graph of this play to look like:



Can you explain briefly the reasons for any peaks or troughs in your graph?

This graph produced. Can you justify differences between this and your graph?

