

**DECISION MAKING BY THE CHARACTERS WITH THE RELATION
WITH THE RING IN TOLKIEN'S LORD OF THE RINGS THE MOVIES
FROM THE PERSPECTIVE OF GAME THEORY**

THESIS

Submitted in Partial Fulfillment of the Requirements

For the Degree of *Sarjana Humaniora*



Written by:

ILHAM PANDU GUTAMA

SRN:163211100

**ENGLISH LETTERS STUDY PROGRAM
FACULTY OF CULTURES AND LANGUAGES
UNIVERSITAS ISLAM NEGERI RADEN MAS SAID SURAKARTA**

2023

ADVISOR SHEET

Subjects : Thesis of Ilham Pandu Gutama

SRN : 163211100

To:

The Dean of
Faculty of Cultures and Languages
UIN Raden Mas Said Surakarta
in Surakarta

Assalamu'alaikum wa rahmatullahi wa barakaatuh

After reading thoroughly and giving necessary advices,
herewith, as the advisor, I state that the thesis of

Name : Ilham Pandu Gutama

SRN : 163211100

Title : *Decision Making By The Characters With The Relation With The Ring In Tolkien's
Lord Of The Rings The Movies From The Perspective Of Game Theory*

has already fulfilled the requirements to be presented before the Board of Examiners
(*munaqasyah*) to attain the degree of *Sarjana Humaniora* in English Letters.

Thank you for the attention.

Wassalamu'alaikum wa rahmatullahi wa barakaatuh

Sukoharjo, May 8, 2023

Advisor,



SF. Lukfianka Sanjaya Purnama, M.Hum.

NIP. 19840317 201503 1 003

RATIFICATION

This is to certify that the *Sarjana* thesis entitled *Decision Making By The Characters With The Relation With The Ring In Tolkien's Lord Of The Rings The Movies From The Perspective Of Game Theory* by Ilham Pandu Gutama has been approved by the Board of Thesis Examiners as the requirement for the degree of *Sarjana Humaniora* in English Letters.

Chairman : Wildi Adila, S.Pd.I., M.A

NIP. 19911107 202012 1 011

Secretary : SF. Lukfianka Sanjaya Purnama, M.Hum.

NIP. 19840317 201503 1 003

Main Examiner : Dr. SF Luthfie Arguby Purnomo, S.S., M.Hum.

NIP. 19820906 200604 1 006

Surakarta, May 23, 2023

Approved by

The Dean of Faculty of Cultures and Languages


Prof. Dr. Toto Suharto, S.Ag., M.Ag.

NIP 19710403 199803 1 005

DEDICATION

This thesis is dedicated to:

1. My beloved parents.
2. My beloved brother.
3. My beloved friends.
4. My lecturers of English letters department.
5. My Alma mater UIN Raden Mas Said.
6. For the readers

MOTTO

“Meg, you’re so beautiful on the inside, but it is important to know your
limitations.”

(Brian Griffin)

PRONOUNCEMENT

Name : Ilham Pandu Gutama
SRN : 163211100
Study Program : English Letters
Faculty : Faculty Cultures and Languages

I hereby sincerely state that the thesis entitled “**Decision Making By The Characters With The Relation With The Ring In Tolkien’s *Lord Of The Rings* The Movies From The Perspective Of Game Theory**” is my real masterpiece. The things out of my masterpiece in the thesis are signed by citation and referred in the bibliography.

If latter proven that my thesis has discrepancies, I am willing to take the academic sanction in the form of repealing my thesis and academic degree.

Surakarta, May 22 2023



Stated by,

Ilham Pandu Gutama

SRN. 163211100

ACKNOWLEDGEMENT

Alhamdulillah, all praise to Allah SWT. The single power, the Lord of the universe master of the day judgement, God all mighty, for all blessing and mercy so the researcher was able to finish this thesis entitled “*Decision Making By The Characters With The Relation With The Ring In Tolkien’s Lord Of The Rings The Movies From The Perspective Of Game Theory*”. Peace be upon Prophet Muhammad SAW, the great leader and good inspiration of world revolution.

The researcher would not complete the research without helps, support and suggestion from several sides. It makes the researcher put the deepest thanks for those who helps suggested, and supported the researcher until the researcher finish this research, this goes to:

1. Prof. Dr. Mudofir, S.Ag. M.Pd as the Rector of the Raden Mas Said Islamic University of Surakarta for giving permission to the researcher to conduct the research.
2. Prof. Dr. Toto Suharto, S.Ag., M.Ag. as the Dean of Cultures and Languages Faculty.
3. Dr. Nur Asiyah, S.S., M.A as the Head of Literature Department.
4. Dr. Muhammad Zainal Muttaqien, S.S., M.Hum as the Coordinator of English Literature Study Program.
5. SF. Lukfianka Sanjaya Purnama, S.S., M.Hum. as the advisor, advice, time, patience in guiding, and sincerity so far to researchers. Thank you very much and hopefully you will always be healthy and everything will be smooth

6. Muhammad Rizal, M.A. as the validator of the data in this research.
7. All lectures in English Letters Department who have taught and gave precious knowledge.
8. The beloved and amazing parents, Mr. Purwanto and Mrs. Sri Winarni who always pray, support and do anything the best for the researcher. May allah removes all your worries, pain, fears, and grant you to *Jannah*. Aamiin
9. My brother Ilham Fadhil Zaidan for the all of the support.
10. My best friends who always giving support, motivation, and help to the reasercher at every moment.
11. My friends in *Literatory, Arture, Kelompok Belajar hihi, and Departemen Penerangan*.
12. For all of the transportations, gadgets, place and whatnot that had been help me during the process of making this research.
13. For everyone whom the researcher cannot mention one by one.

The researcher realizes that this thesis is still far from being perfect. The researcher hopes that this thesis is useful for the researcher on particular and the readers in general.

Surakarta, May 22, 2023

The researcher

Ilham Pandu Gutama

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ABSTRACT

Gutama, I. P. (2023). *Decision Making by the Characters with the Relation with The Ring In Tolkien's Lord of The Rings the Movies From the Perspective of Game Theory*. Thesis. English Letters. Faculty of Cultures and Languages.

Advisor : SF. Lukfianka Sanjaya Purnama, M.Hum.

Keyword : Game Theory, The Lord of The Rings

This study aims to analyze The Lord of the Rings film trilogy from the perspective of Game Theory. As a result, the fundamental challenge of this research is to identify the game theory model that the characters in the Lord of the Rings film trilogy utilize while making decisions that are related to the ring.

In this study, the Game Theory, developed by Martin J. Osborne in 2000, is used. Four game models, including The Prisoner's Dilemma, Stag Hunt, Bach or Stravinsky, and Matching Pennies, are used to illustrate this notion. The researcher decides which game models the characters use in the process of decision making.

This study employs a qualitative-descriptive approach. The data was taken from The Fellowship of the Ring (2001), The Two Towers (2002, 2003), and The Return of the King (2003 film) of the Lord of the Rings movie trilogy. The researcher then processed and evaluated the data. To confirm the accuracy and reliability of the data the researcher has collected, the researcher uses investigator triangulation technique which means the data has to be validate by a validator.

In the research's findings, 62 data of the decision-making process that corelated with the Rings have been discovered, the most dominant game model found is Prisoner's Dilemma with 31 data, followed by Stag Hunt 20 data, the Bach or Stravinsky 9 data, and the last is Matching Pennies with 2 data. The most frequent data is Prisoner's Dilemma because the characters facing a lot of competition either to keep the Ring or fighting over the Ring. the least frequent data found is Matching Pennies because there is not much gambling situation that characters face because each of the characters have their own strategy to make decisions about the Ring.

CHAPTER I

INTRODUCTION

A. Background of the study

Lord of the ring trilogy are movies that adapted from a high-fantasy novel by J.R.R Tolkien with the same title Lord of the Ring. This movie separated into 3 parts entitled *The Fellowship of the Ring* (2001), *The Two Towers* (2002), dan *The Return of the King* (2003) directed by Peter Jackson which produced and distributed by New Line Cinema and Wingnut Film. Lord of the rings main idea is about one ring which give power to vanish however this ring also brings side effect which directing the user into greediness of the power.

Game theory is the study of mathematic models of strategic interaction between rational decision-makers. It has applications in all around social science, as well as in logic and computer science. Ken Binmore (2007), Explains that game theory could be useful to predict what the result of the game the player will face in social life, but only if the player play the game *rationally* .

There are so many different kind of games in game theory such as prisoner's dilemma, chicken game, ultimatum game, and many more, Which each of the game leads to different kind of model and situation. Osborne (2000) found that there is a lot of situation may me modeled as strategic game, the decision makers or the players could be anyone, the actions could be anything and the preferences are something that corelated with those two factors.

The Hobbit and The Lord of The Rings are literary works by J.R.R Tolkien, The Hobbit written as a single book and The Lord of The Rings written as a trilogy with three volumes and 6 books, 2 books each volume. The Lord of the rings takes setting of time after The Hobbit. Both of them were made into six Movies by Peter Jackson, three for The Hobbit and Three for The Lord of The Rings.

There is previous study involving The Lord of the Rings. Trees as Setting and as Characters in the Novel the Lord of The Rings : Two Towers by Adhani Juniasyaroh (2013). This study talks about how the trees serve as characters in the Lord of the Rings: The Two Towers book. This study and Juniasyaroh's study both analyze The Lord of the Rings, which is where they have similarities. The distinctions are that only one of the books was studied in Juniasyaroh's research, which focuses on the novel. Whether the trilogy as a whole and the cinematic adaptation are both examined in this study.

In this research the writer wants to use the game theory to know the effect from the decision that made by the characters in the trilogy of The Lord of The Rings movies by Tolkien and directed by Peter Jackson in correlation with the ring. Since there are many games in game theory, the writer will characterize the scene in The Lord of The Rings movies with the games that match with it. Just like the examples below.

Example 1:

Picture 1.1



Bilbo vs Frodo

The Lord of the Rings: The Fellowship of the Ring

This data taken from The Lord of the Rings: The Fellowship of the Ring. The characters involved in this data is Bilbo Baggins and Frodo Baggins. Bilbo was holding the ring but then he drops it. He means for Frodo's turn to carry the ring. The game model of this data is Bach or Stravinsky. Bilbo choose to give the ring to Frodo for better purpose even he actually has desire to own it by himself.

Example 2 :

Picture 1.2



Gandalf vs Frodo

The Lord of the Rings: The Fellowship of the Ring

This data taken from *The Lord of the Rings: The Fellowship of the Ring*. The characters involved in this data are Gandalf the Grey and Frodo Baggins. Gandalf pick up the ring and put it in an envelope then passes the ring to Frodo, Frodo has to carry the ring to Mordor and drop it in the fire. The game model used in this data is Prisoner's Dilemma. Gandalf put the burden on Frodo shoulder to bear the ring.

Based on the examples above, we know that the decisions that made by the characters could be determined with game theory even though it is very chal

lenging. Because it needs more detail to analyze the literary works, beside we decide the games that could related to the scene we also need to know the impact from that decision to the character itself. How ever the research also can't be a hundred percent objective because it will also use the sense of the writer to understand and deciding which games that fit with particular scenes.

B. Limitation of The Problem

The data will be taken from The Lord of The Rings movies trilogy. *The Fellowship of the Ring* (2001), *The Two Towers* (2002), dan *The Return of the King* (2003). The focus of the analysis includes the games that the characters use while making decisions which have correlation with the ring and the impact of it to the character itself.

The writer limits the kind of games the characters use in this research, the limitation based on the four examples that provided by Osborne in his book, *An Introduction to Game Theory*. The four examples show in Osborne's book are Prisoner's Dilemma, Stag Hunt, Bach or Stravinsky, and Matching Pennies.

The study aims to find which one of the game models from the four examples of the game theory in the Lord of The Rings movies trilogy.

C. Formulation of the Problems

Based on the research background the researcher aims this study to discuss about: What games do the characters face when they found the Ring in Tolkien's *Lords of the Rings movies trilogy*?

D. Objectives of the Study

Based on the problem formulation above, the objectives of this study are: To know what games do the characters face when they found the Ring in Tolkien's *Lords of the Rings movies trilogy*.

E. Benefits of the Study

This study aims to prove that literature and economic could be use together, the economic theory could be applied to literary works. Hopefully, this study brings benefits for many people. theoritically and practically.

1. Theoretical Benefits

By reading this study the readers may figure out about how the decision making process on the literary works using mathematic models or strategic games which also called game theory.

2. Practical Benefits

In social life, decision making may be fundamental for some reason. This study hopefully helps the readers to choose which best decision by predicting probabilities with the game theory.

F. Key of the terms

1. Game Theory

According to Osborne (2000) game theory helps us understand which games and set of rules the players or decision makers interact. Also to know that game theory can be aplied widely, from the small area of application until the huge area of application. Games theory widely known for the economic studies, especially for finding the best strategy in decision making process.

2. The Lord of the Rings

The Lord of the Rings is one of the famous literary works by J.R.R Tolkien. Later it comes to three movies entitled the same which directed by Peter Jackson, the first movie entitled *The Lord of the Rings: The Fellowship*

of *The Ring* (2001) then *The Lord of the Rings: The Two Towers* (2002), and the last is *The Lord of the Rings: The Return of the King* (2003).

CHAPTER II

LITERATURE REVIEW

A. Theoretical Background

1. *Game Theory*

While making decisions we need to have strategies which hopefully leads to something upstanding. The result expected to be profitable or at least neutral for the players and not inflict a disservice. Game theory has the answer for, this theory gives considerable model of games that containing much of strategies to have good result in making decision. According to Osborne (2000), game theory consists of a collection of models. A model is an abstraction we use to understand our observations and experiences.

Game theory consists of a lot of models of the perfect games, each model representing an action of decision making in life. We can figure out which models we need to solve the decision making problem by analogize the models as the situation we are facing. At the same time, a model derives power from its simplicity; the assumptions upon which it rests should capture the essence of the situation, not irrelevant details. Osborne (2000)

The models of game theory shown in parables of real life. The example game theory models such as:

a. The prisoner's dilemma

Made by the American mathematician Albert W. Tucker. The Prisoner's Dilemma is a situation of two individuals, separated and unable to communicate, each of them have to choose between

cooperating with the other player or not. The highest reward for each individual occurs when both parties choose to co-operate. While the highest reward for an individual occurs when the one party choose to not co-operate. *“Its name comes from a story involving suspects in a crime; its importance comes from the huge variety of situations in which the participants face incentives similar to those faced by the suspects in the story”* Osborne (2000).

The real situation example is like this : there are two prisoners, *Ann* and *Sam*, suspected of committing a crime together, they both are isolated and urged to confess. Each of the suspect is concerned only with getting the shortest possible prison sentence for himself; each of the suspect have to decide whether to confess without knowing his partner’s decision. Both of the suspects, know the consequences of their decisions: one, if they both confess, they both will go to jail for 1 years. Two, if none of them confesses, both of them go to jail for 2 year. Three, if the one confesses while the other does not, the one who confesses goes free from jail and the silent one goes to jail for 3 years.

b. Stag hunt

This model of game theory formulated by Jean-Jacques Rousseau. The situation is if two individuals decide to co-operate they both will get bigger reward. While if each of those two individuals decide to go alone they will get smaller reward. *“They*

will succeed if they all remain sufficiently attentive, but each is tempted to desert her post and catch a hare” Osborne (2000)

The real situation example is like this: two hunters going to jungle, in the middle of the road they meet each other. They could choose either to hunt stag which worth 2 points or hare which worth 1 point. A hunter can catch a hare by himself, but a hare is worth less than a stag. In order to catch the stag the two hunters should cooperate and having trust to each other. Then they will get stag which worth more than hare. However if a hunter choose to catch a hare and the other hunter choose to hunt a stag he will leave empty handed since the stag can't be caught by a single hunter.

c. Bach or Stravinsky

If in *Prisoner's Dilemma* an individual will get the best result for it's own self when they choose to not cooperate. In this Bach or Stravinsky game the players should cooperate to get better result for their selves but the outcome of which one is the best result is subjective. It's different between the player one or the player two. *“This game is also referred to as the “Battle of the Sexes” (though the conflict it models surely occurs no more frequently between people of the opposite sex than it does between people of the same sex)” Osborne (2000).*

The real situation example is like this : two men arguing about going to *Metallica(Bach)* or *System of a Down(Stravinsky)* concert. The first man wants to go to *Metallica* concert, then the

second man want to go to *System of a Down* concert. If those two men go alone to each concert they like, the first man to *Metallica* and the second man to *System of a Down*. They will not be entertained by the performers because they are not watch it together so the result is zero. How ever if they watch the concert together if the second man follow the first man to watch *Metallica* concert or the first man follow the second man to watch *System of a Down* concert, each of them who actually not really fans of the performers still get entertained because they are watch it together. The result is 1 for the one who is not the fans, and 2 for the one who is the fans.

d. Matching pennies

Matching Pennies is one of the game theory model that demonstrates how rational the players seek to maximize their outcome. This model of game played by two players simultaneously placing a penny on the table, with the outcome depending on which side the other pennies will land on the table. If both pennies are having same side either heads or tails, the first player wins and keeps the other's penny; if they do not match or having different side, the second player wins and keeps the other's penny. "In this game the players' interests are diametrically opposed (such a game is called "strictly competitive"): player 1 wants to take the same action as the other player, whereas player 2 wants to take the opposite action" Osborne (2000)

The real situation example is like this: *Bony* and *Clyde* are throwing their pennies. If they show the same side *Bony* will take *Clyde's* penny, if they show different side *Clyde* will take *Bony's* penny. In other words this model of game is really competitive. There are no cooperative movements which lead to the same amount of reward between two players or a draw result. The players only care about how to get a higher amount of rewards than their competitors. The result is only win or lose, winning represented by 1 and lose represented by -1. There is no neutral value present in this *Matching Pennies* game.

While making some decision the players need to have good strategy in order to win the game or to get the best result of the game. This particular situation requires the player's ability to observe the other player's action in those strategic games. Understanding and considering the result of the other player's decision will lead to having calculations on what the player should wisely decide. In a simple way, the one player's action in a decision-making process would affect another player's action. John F. Nash, Jr. formulated this theory of decision making which is later called *Nash Equilibrium*. The definition of a *Nash Equilibrium* is designed to model a steady state among experienced players. "*An alternative approach to understanding players' actions in strategic games assumes that the players know each other's preferences, and considers what each player can deduce about the other players' actions from their rationality and their knowledge of each other's rationality*" Osborne (2000).

2. *Movie*

A movie, as defined by Hornby (2006), is a collection of moving images and sound that are played at a movie theater. Novel, legend, short story, myth, folklore, play, and also movie are literary works. Movie according to Oxford Dictionary, is a series of moving pictures recorded with sound that tells a story, watched at a movie theater or on a television or other device. Movies categorized to be one of the literary works since it can be interpreted and analyzed as the traditional written literary works such as novel, folklore, etc. the elements in the written literary works also present in movies.

Nowadays movies genre became larger than the old days, sci-fi, animation and other genres which contributing high technology of editing such as *C.G.I.* the progress of the movie making is truly amazing and it also followed by the movie goers that growing rapidly to the huger amount every day. Movies apparently become an alternative for those who want to enjoy literary works but doesn't really like to read books. Formerly people imagining while they read novels, now they just watch and enjoy it without imagining anything. Their imagination was already on the big screen they look at. According to Brown (2009) adaptations of literary text into movie not only helps audience more deeply engaged with the literature but also to cope the secondary sources.

3. *The Lord of the Rings*

In the 1937 J.R.R Tolkien firstly wrote a literary work about a ring that giving power to whoever wear it, he wrote it until 1949. Then in 1954 until 1955 it released as trilogy fantasy novel entitled *The Lord of the Rings* which later become one of the best selling novel of all time in 20th century. Released into 3 volumes with 6 different books 2 books per volume, the first volume entitled *The Fellowship of the Ring*, the second volume *The Two Towers*, and then the last volume is *The Return of the King*. Translated into 38 languages and over 150 millions copy sold all over the world.

In 2001 *Peter Jackson* directed a movie based on the first volume of *The Lord of the Rings* novel which subtitled the same, *The Fellowship of the Ring*. Then in 2002 he directed the second movie based on the second volume of the novel *The Two Towers*. The last is *The Return of the King* which released in 2003 and also directed by *Peter Jackson*. Produced and distributed by *New Line Cinema* with *WingNut Film* co-production. The cast of the movies such as *Elijah Wood*, *Ian McKellen*, *Liv Tyler*, *Viggo Mortensen*, *Sean Astin*, *Cate Blanchett*, *John Rhys-Davies*, *Christopher Lee*, *Billy Boyd*, *Dominic Monaghan*, *Orlando Bloom* and the other famous actors. This trilogy movies regarded as one of the most greatest and most influential film series ever made. This movie made was also a major financial success with the revenue of 2.991 Billion USD. According to *Mahtijs* (2006), it's so rare that book being this spectacular as *The Lord of the Rings* trilogy.

The lord of the Rings is a story about a ring that made by *Sauron* from his will and evil for the purpose of this ring will dominate other 20 rings. The other rings owner resist this evil ring and fight *Sauron*. After a long travel this ring now owned by *Bilbo Baggins* which is a *hobbit*. Then the movie started to the main journey of *Frodo Baggins* whose *Bilbo's* nephew, he ordered to destroy the ring far away from *Shire* where *The Hobbits* live since *Sauron* already knew where is the rings and on the way to get it.

B. Previous Related Studies

Discussion concerning on Game Theory models and it's application on decision making process that have been done in the previous studies. The first previous related study is *Motives Behind Characters' Decision Making in Choosing Good and Evil Deed in J.R.R Tolkien's The Lord of the Rings: The Fellowship of the Ring* by Anggi Georgie Christiansent (2012). His research is studying about what the motivations behind two main characters of *The Lord of the Ring: The Fellowship of the Ring*, *Saruman* and *Frodo Baggins* making the decision between good deed or evil deed. The research use psychology theory approach in order to analyze what they choose. The writer of the research above using psychological theory, while in this research the writer will use economical theory spesifically game theory. Hopefully it will bring different point of view in analyzing The Lord of the Rings. Furthermore the research above limited on 1 movie from the trilogy especially The Fellowship of the ring. While in this research the writer will focus on the trilogy which containing 3 movies.

The second previous related study is *Orientalism And Religious Aspects On Characters And Objects In J.R.R Tolkien's The Lord Of The Rings: A Semiotic*

Analysis (Aspek-Aspek Orientalisme Dan Agama Pada Tokoh Dan Objek Dalam Novel *The Lord Of The Rings* Karya J.R.R Tolkien: Analisa Semiotik) by Fredy Widya Pratama, Samudji, Irana Astutiningsih (2013). This research finding the orientalism and religious aspects in *The Lord of the Rings* novel. They use semiotic theory to analyze the novel in the research. The research above is using the semiotic theory to valuate *The Lord of the Rings* novel, while the writer in this research concerning to use game theory to analyze literary works. The research above also apparently analyze the novel version of the literary works, while in this research the writer analyze the movie trilogy version of the literary work.

The third previous related study is *An Analysis of Commissive Expressions in The Films Entitled The Lord of The Rings I : The Fellowship of The Ring and The Lord of The Rings II : The Two Towers* by Peter Jackson (A sociolinguistics study) by Fransisika Elvira Dyah Puspaningrum (2006). The research is finding the commissive expression in *The Lord of The Rings I : The Fellowship of The Ring and The Lord of The Rings II : The Two Towers*, which is part of sociolinguistic study. Primary data collected by watching the two movies while the secondary data collected from supporting article and journals. This research divided commissive expressions into three different classes which are Promises (Pr) , Offers (O), and Threats (T). The research only focus on two title of the trilogy movies, while in this research the writer focusing on the whole three movies of the trilogy. The research using sociolinguistic theory especially the commissive expression to valuate the movies. In contrast, the writer of this study using game theory to analyze the decision making process by the character in the movies.

The fourth previous related study is *Analysis Of The Main Characters Of "The Lord Of The Ring- The Return Of The King" A Novel By J.R.R Tolkien* by Ermalina, Pipit Rahayu, and Erippudin (2015). This study aims to analyze few main characters of The Lord of the Rings – The Return of the King novel. The writers use the book as the primary data source and internet as the secondary source. This study use the theory of formalism criticism by Guerin. The study above using formalism criticism theory to analyze the characterization of the main character, while the writer in this research use game theory to analyze the decision making by the main characters. The study above focused on The Lord of the Rings – The Return of the Kings novel, while in this research focusing on the movie trilogy.

The fifth previous related study is *The Heroic Values Of Frodo Baggins In The Lord Of The Rings: The Fellowship Of The Ring By J.R.R. Tolkien* by Muhammad Zuhail (2019). This study aims to know the characterization and the heroism value of Frodo Baggins in the novel The Lord of the Rings -The Fellowship of the Rings using new criticism theory and heroism theory. The study above focused only on Frodo Baggins and The Fellowship of the Rings novel. while in this research the writer try to analyze few main characters in The Lord of the Rings movie trilogy. The study above also using Heroism theory and New criticism theory in order to find the value of the analysis. While in this study the writer using game theory in order to focus on decision making that the main characters made in the movies.

CHAPTER III

RESEARCH METHOD

The data analysis phase is another crucial aspect of the research process, wherein the collected data is carefully examined and interpreted to draw meaningful conclusions. According to Santosa, (2017), it is emphasized that research methods play a pivotal role in the identification and implementation of various techniques that are essential for carrying out a successful study. These methods encompass a wide range of considerations, including the determination of the research location, selection of appropriate data sources, the collection of relevant data, sampling strategies, and the choice of data collection methods such as questionnaires or interviews, as well as the utilization of observation techniques. It is worth noting that one of the critical aspects of employing research methods is ensuring the validity of the obtained data, which entails employing appropriate measures and techniques to ensure the accuracy and reliability of the findings. Therefore, it can be understood that research methods serve as a comprehensive framework through which researchers can effectively process and analyze data, enabling them to derive valuable insights and contribute to the advancement of knowledge in their respective fields.

This chapter describes the research design, the data and data source, the research equipment, the technique for gathering data, the technique for data processing, and the technique for validating the results.

A. Research Design

The writer in this research uses a qualitative approach to carry out the study, gathering, classifying, and analyzing data before drawing conclusions based on the findings. Since the data are not statistical, qualitative research is used in this study. The goal of the study is to understand how the characters in the Lord of the Rings film trilogy make decisions in connection to the ring. The researcher will concentrate on the scene where the characters come into contact with the ring and must make decisions regarding it when gathering data. According to Creswell (2003), qualitative research is an investigation procedure for comprehending a social or human problem that is based on constructing a complete account of the perspectives of the informants and carried out in a natural environment. Qualitative research emphasizes a variety of methodologies and takes an interpretive, naturalistic approach to its subject.

B. Data and Data sources

People who conduct research require data; without data, they are unable to analyze the study topic. The information could take the shape of a sentence, clause, phrase, word, morpheme, or even a discourse. The research draws findings on several difficulties using information from the Lord of the Rings film trilogy as its starting point. The information used in this study is presented as a screenshot of a character engaged in decision-making. Subroto (1992) asserts that the information itself can take the shape of discourses, sentences, clauses, phrases, or words that can be found in magazines, newspapers, books, films, etc.

The data's source is examined and taken into account when deciding how to analyze certain topics. *The Lord of the Rings : The Fellowship of The Ring* (2001) then *The Lord of the Rings : The Two Towers* (2002), and the last is *The Lord of the Rings : The Return of the King* (2003) serve as the data's primary sources. In order to determine the models of the game theory used in the data's, the writer will examine the decision making process by the character in correlation with the ring in the Lord of the Rings movies trilogy that being analyzed. The writer will use the game theory by Osborne.

The source of the data clarifies the subject from which the data are derived, according to Arikunto (1996). The source of The Lord of the Rings trilogy movies in this research will be taken from a video streaming service which is Amazon Prime Video. There are two versions for each the trilogy movies, the original and extended version. The extended versions have longer duration and more filler in the plot, while the original versions have shorter duration and the plot is straight forward on the main story. In this research the researcher will use the original version of *The Lord of the Rings: The Fellowship of the Ring* (2001), *The Lord of the Rings: The Two Towers* (2002), and *The Lord of the Rings: The Return of the King* (2003).

C. Research Instrument

Research of this kind is categorized as qualitative. (Arikunto, 2002) defines instruments as "tools or facilities to collect the data in order to make it easy to do research and to get a good result". According to Sutopo, (2002), the researcher is the primary tool in qualitative research since people can evaluate the significance

of all encounters. It means that main instrument of the research is the researcher it self. to comprehend the choices that the characters made and discover the game theory models that correlate to the circumstances the characters were in. Based on the researcher's evaluation from watching and reading the scripts for *The Lord of the Rings: The Fellowship of the Ring (2001)*, *The Lord of the Rings: The Two Towers (2002)*, and *The Lord of the Rings: The Return of the King (2003)*. The other tools the researcher used Articles, journals, books, and dictionaries are all available to aid with this research. The primary tool is the researches themselves. The researcher's skills are crucial to this study to comprehend the choices that the characters made and discover the game theory models that correlate to the circumstances the characters were in. Based on the researcher's evaluation from watching and reading the scripts for *The Lord of the Rings: The Fellowship of the Ring (2001)*, *The Lord of the Rings: The Two Towers (2002)*, and *The Lord of the Rings: The Return of the King (2003)*. The other tools the researcher used Articles, journals, books, and dictionaries are all available to aid with this research.

D. Technique of Collecting Data

The researcher provides an explanation of the data collection process used in this study. The four methods of data collecting, according to Creswell (2013), are observation, interview, documentation, and video materials. A sequence of data must be collected in order to gather reliable information that can be used to answer the research question. The researcher uses documentation techniques to get the data for this study. Moleong (2001) states that the process employed in scientific study

to gather data through documents is known as documentation. In this research the writers using some steps to collect the data:

1. In order to gain a deeper knowledge of the plot and the specifics of the ring's story in the films, the researcher watched The Lord of the Rings trilogy multiple times.
2. The researcher reads the written material.
3. The researcher watches the film while observing the characters' decision-making processes, then makes some notes about the choices that the characters in The Lord of the Rings trilogy make in order to gather data.
4. The analysis of the data by the researcher once it has been gathered.

Data coding technique

1. The digits 01, 02, 03... that were utilized to form the data number's order
2. The use of an acronym in capital letters to illustrate which game models of Game Theory the character uses when making decisions as it follows
 - a. PD: Prisoner's Dilemma

In The Prisoner's Dilemma, two players must decide whether to cooperate with one another or not while they are separated and unable to communicate. When both sides opt to cooperate, they receive the greatest return. While the greatest reward for a person arises when one party refuses to cooperate.

- b. SH: Stag Hunt

In this case, if two people opt to work together, they will both receive a larger prize. If those two people decide to tackle it alone, they will receive a reduced payout.

c. BC: Bach or Stravinsky

The players in this Bach or Stravinsky game should work together to achieve a better result for themselves, however the outcome of which one is the best is subjective. It differs between player one and player two.

d. MP: Matching Pennies

Matching Pennies is a game theory model that shows how rational players aim to optimize their outcomes. This type of game is played by two players at the same time, with the outcome determined by which side the other pennies drop on the table.

3. The usage of an acronym in capital letters to indicate which of the three Lord of the Rings films is being referenced.

FR: *The Lord of the Rings: Fellowship of the Ring* (2001)

TT: *The Lord of the Rings: The Two Towers* (2002)

RK: *The Lord of the Rings: The Return of the King* (2003)

The following is the examples of data collected:

(11/SH/FR)

1.31.24-1.32.00

Frodo vs Gandalf

The Lord of the Rings: The Fellowship of the Ring

Frodo decided to take the ring to Mordor and Gandalf willing to help him.

The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other.

(44/PD/RK)

57.29-58.07

Samwise vs Smeagol

The Lord of the Rings: The Return of the King

Smeagol provokes Frodo that Sam wants the ring and he will ask for it later. The ring presence in this scene, the game model is prisoner's dilemma because Smeagol try to get rid of Samwise in order to get better result for his own self.

E. Data Validation Technique

The analysis of this study will be terrible if the data are false. According to Creswell (2003), One of the power that qualitative research has is validity, which is focused on establishing whether the conclusions are true from the perspective of the researcher, the participant, or the audience of an account. Data validation is used to determine whether the data is accurate or not since without it, people cannot analyze the issue they are trying to solve.

The researcher has to validate the data that had been collected. The validation has to be done by an expert or validator in order to avoid errors. The validator must be expert in Game Theory, literary works, and English literature. The step for validating the data used in this study is described below:

1. The data are categorized by the researcher according to the objective of the study.

2. The researcher provides the validator with the data that has been collected by the researcher.
3. The researcher hold a meeting with the validator to discuss the valid or invalid data.
4. The writer delete the invalid data that has been evaluated with the validator.

F. Technique of Analyzing Data

After the researcher has gathered the data and validate by validator, the following stage is to analyze the data. The writer using data analysis to produce the study's findings. According to Spradley (1979), The study is a thorough, step-by-step procedure that starts with a survey of the cultural landscape and looks for cultural domains, which are categories of meaning that frequently include subcategories. In qualitative research, the four data analysis stages are domain, taxonomic, component, and cultural themes.

1. Domain

To find universal and complete solutions to one's social problems as well as the social problems of the research topic, domain analysis is used. According to

Sugiyono (2010), the goal of domain analysis is to get a broad, in-depth description of the subject of the study or the social context. In order to get a basic idea to be studied based on the problem statement, researchers gathered data from the trilogy of films. Domain analysis is used to distinguish between those that contain data and those that do not.

2. Taxonomy

Domain analysis is followed by taxonomic analysis. Domain analysis is the next phase; taxonomy analysis categorizes each domain according to its original category and exclusively focuses on its internal structure. The taxonomy table are shown below:

Table 3.1

Movie Name	Game Model				Total
	SD	SH	BC	MP	
FR					

Table 3.2

Movie Name	Game Model				Total
	SD	SH	BC	MP	
TT					

Table 3.3

Movie Name	Game Model				Total
	SD	SH	BC	MP	
RK					

3. Componential

Componential analysis comes next after taxonomy analysis. Componential analysis, according to Spradley (1980), is the methodical search for attribute

(component of meaning) connected to cultural categories. By creating the table, the researcher links the components from the componential analysis.

The componential table of this research is shown below:

Table 3.4

Movie Name	Game Model			
	PD	SH	BC	MP
FR				
TT				
RK				
Total				

Explanation:

FR: The Fellowship of the Ring

TT: The Two Towers

RK: The Return of The King

PD: Prisoner's Dilemma

SH: Stag Hunt

BC: Bach or Stravinsky

MP: Matching Pennies

4. Cultural Theme

Cultural theme analysis looks for the overarching thread that connects many aspects of an existing field. After gathering all the data for the domain analysis, the researcher will discover the key game models of game theory and the movie's primary characters who make decisions concerning the ring in this

cultural theme study. In order to employ the game theory's conclusion and its outcome in the trilogy of films, the researcher will describe and interpret the data.

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSIONS

This chapter includes findings and discussions pertaining to Martin J. Osborne's Game Theory following the data collection. Based on how the characters in the Lord of the Rings trilogy of movies (*The Fellowship of the Ring* (2001), *The Two Towers* (2002), dan *The Return of the King* (2003)) make decisions regarding the Ring, the researcher will examine which game theory model was utilized by those characters. The information provided by the author is drawn from character interactions, interactions, and confrontations in the movies.

In this study, there are 62 pieces of information that the researcher takes into account when analyzing the choices that all of the characters in the Lord of the Rings film series made in relation to the Ring. The 62 data are gathered from movie characters who ostensibly make decisions regarding the ring. The ring may or may not be visible when making a decision, but it has been proven that there are correlations between the situation and the ring when it comes to the data. The researcher will use Martin J. Osborne's Game Theory to evaluate the data of decision-making scenarios and determine the type of game model the characters will use.

A. Finding

Table 4.1

Movie Name	Game Model			
	PD	SH	BC	MP
FR	11	10	2	1
TT	5	6	2	0
RK	15	4	5	1
Total	31	20	9	2

The provided table presents the data collection statistics for the research conducted on three movies. In total, the researcher collected 62 data points. Among these, 31 data points were gathered for the Prisoner's Dilemma game model, 20 data points for Stag Hunt, 9 data points for Bach or Stravinsky, and 2 data points for Matching Pennies. This distribution highlights the varying emphasis placed on each game model within the research, with Prisoner's Dilemma having the highest number of data points, followed by Stag Hunt, Bach or Stravinsky, and Matching Pennies.

Example of Game Models Found in The Lord of The Rings Movie Trilogy

1. Prisoner's Dilemma

a. (03/PD/FR)

Picture 4.1



Gandalf vs Frodo

The Lord of the Rings: The Fellowship of the Ring

Analysis:

As Gandalf picked up the Ring, he carefully placed it in an envelope before handing it over to Frodo. In doing so, he entrusted Frodo with the monumental task of carrying the Ring to Mordor and ultimately destroying it by casting it into the fiery depths. In this scenario, the Prisoner's Dilemma game model played a role.

Gandalf's decision to pass the burden of the Ring to Frodo can be viewed as a manifestation of the Prisoner's Dilemma. Fearful of the corrupting influence and immense power of the Ring, Gandalf believed that he himself was not strong enough to resist its allure. Consequently, he made the choice to shift the responsibility onto Frodo's shoulders.

From Gandalf's perspective, this decision had a positive outcome. By relinquishing the Ring, he freed himself from the

burden and the potential dangers associated with its possession. Although he promised to support Frodo on his journey, Gandalf no longer bore the personal weight and responsibility of the Ring. This allowed him to focus on guiding and assisting Frodo while keeping the forces of evil at bay.

Conversely, this turn of events had a negative impact on Frodo. The duty of carrying the Ring and ensuring its destruction rested solely on his shoulders. Frodo had to confront the immense challenges and perils associated with such a task. It required him to summon extraordinary courage and resilience as he embarked on a treacherous journey, constantly pursued by dark forces who sought to reclaim the Ring's power.

In summary, Gandalf's decision to pass the Ring to Frodo aligned with the Prisoner's Dilemma model. It benefited Gandalf by relieving him of the Ring's burden, while placing a significant and arduous responsibility on Frodo. Despite the challenges faced by Frodo, he accepted the duty and embarked on the quest with unwavering determination, driven by the knowledge that the fate of Middle-earth rested on his success.

b. (05/PD/FR)

Picture 4.2



Gandalf vs Frodo

The Lord of the Rings: The Fellowship of the Ring

Analysis:

After Gandalf reveals the ominous history of Gollum and the malevolent power of Sauron, Frodo becomes overwhelmed with fear and pleads with Gandalf to take the Ring instead. However, Gandalf steadfastly refuses this request, and the underlying game model at play in this situation can be likened to the Prisoner's Dilemma.

In this case, Frodo finds himself burdened with the responsibility of bearing the Ring, primarily because Gandalf is unwilling to undertake the task himself. Within the context of the Prisoner's Dilemma, this decision aligns with Frodo being assigned the role with the heavier burden.

From Gandalf's perspective, the outcome of this situation is favorable. By refusing to carry the Ring, he escapes the direct influence and inherent risks that come with possessing it. Although Gandalf remains committed to supporting Frodo on his journey, he ultimately avoids the personal and psychological weight of the Ring's corrupting power.

On the other hand, the result for Frodo is less desirable. He finds himself saddled with the immense duty of carrying the Ring to its destruction in Mordor. This task places him in grave danger and requires him to confront numerous obstacles, both physical and psychological, along the way.

In summary, the dynamics between Gandalf and Frodo in this situation align with the Prisoner's Dilemma game model. Gandalf's refusal to carry the Ring results in a positive outcome for him, while Frodo is left with the negative consequences of bearing the Ring and the accompanying perils. Nonetheless, Frodo's resilience and determination shine through as he accepts the weighty responsibility, realizing that the fate of Middle-earth rests upon his success.

c. (08/PD/FR)

Picture 4.3



57.25-57.37

Frodo vs Strider

The Lord of the Rings: The Fellowship of the Ring

Analysis:

As Frodo embarks on his journey to Rivendell, he finds himself in a situation where he has no choice but to place his trust in Strider (Aragorn). The dynamics at play in this scenario can be analyzed through the lens of the Prisoner's Dilemma game model. Frodo and the others opt to cooperate with Strider, hoping that he shares their common purpose and will lead them safely to Rivendell, the sanctuary of the Elves.

In the context of the Prisoner's Dilemma, cooperation entails Frodo and the others relying on Strider's guidance, believing that he is genuinely committed to their cause. Should Strider remain true to his words and honor his commitment to protecting Frodo and the

Ring, the outcome would be positive for Frodo. By successfully reaching Rivendell, Frodo would find refuge in the secure kingdom of the Elves, ensuring his safety and advancing their quest to destroy the Ring.

However, there remains a possibility that Strider could betray Frodo and the group, driven solely by his own desire for the Ring's power. In such a scenario, the result for Frodo would be negative, as he would be deceived by Strider's true intentions. This would put Frodo in grave danger, potentially jeopardizing the success of their mission. On the other hand, the result would be positive for Strider, as his cunning plan to obtain the Ring would be accomplished at the expense of Frodo's trust.

In this delicate balance of trust and uncertainty, Frodo and the others are forced to make a decision based on their assessment of Strider's character and integrity. Their hopes lie in Strider's loyalty, with the expectation that he will remain steadfast in his commitment to their shared purpose. The outcome of this cooperation or potential betrayal will determine Frodo's fate and the subsequent trajectory of their quest to destroy the Ring.

d. (10/PD/FR)

Picture 4.4



1.19.32-1.20.20

Elrond vs Gandalf

The Lord of the Rings: The Fellowship of the Ring

Analysis:

During the discussion between Sir Elrond and Gandalf, the condition arose that the Ring could not remain in Rivendell. To convey his perspective, Sir Elrond utilized the Prisoner's Dilemma as a model for understanding the situation. Concerned about the safety of Rivendell, Sir Elrond firmly believed that allowing the Ring to stay within their borders would pose a significant risk. According to his assessment, it was imperative for the Ring to be taken to Mordor.

For Sir Elrond, the outcome of this decision appeared positive as it would contribute to the preservation and safety of Rivendell. He believed that by eliminating the presence of the Ring in their

realm, they would avoid the dangers and potential threats associated with possessing such a powerful artifact.

On the other hand, the result was rather unfavorable for Gandalf. Understanding the urgency and gravity of the situation, he could not afford to linger in Rivendell. Gandalf realized that in order to protect Middle-earth and destroy the Ring, he and Frodo had to embark on a perilous journey. This decision carried immense risks as they would be exposed to various perils along the way.

Thus, the divergence in their perspectives led Gandalf to accept the burden of accompanying Frodo and safeguarding the Ring, even at the cost of their own lives. It was a daunting task that required immense courage and sacrifice, yet Gandalf recognized that it was the only way to ensure the ultimate defeat of the dark forces seeking to possess the Ring and unleash its destructive power upon Middle-earth.

e. **(22/PD/FR)**

Picture 4.5



2.35.10

Strider vs orc

The Lord of the Rings: The Fellowship of the Ring

Analysis:

In the encounter between Strider and the orc assailants, the dynamics can indeed be analyzed using the Prisoner's Dilemma game model. Strider chooses not to cooperate with the orcs and instead engages them in battle to prevent them from capturing Frodo and seizing the Ring.

In this scenario, the non-cooperative stance of both Strider and the orcs leads to a risky situation where they put their lives on the line. However, Strider's ultimate objective is to buy enough time for Frodo to escape and continue the perilous journey to save the Ring.

The outcome of this confrontation turns out to be positive for Strider. By valiantly fighting off the orcs and overwhelming them with his skill and determination, Strider successfully diverts their attention and creates a window of opportunity for Frodo. This allows Frodo the crucial time needed to escape with the Ring and continue his quest towards Mordor.

The orcs, on the other hand, find themselves with nothing to show for their efforts. They are unable to apprehend Frodo or obtain the Ring, as Strider's strategic actions and bravery thwart their plans.

In summary, the non-cooperative actions of both Strider and the orcs in the Prisoner's Dilemma game model result in a positive outcome for Strider. His plan to engage in combat and buy time for Frodo's escape proves successful, ensuring Frodo's safety and the continuation of their mission to destroy the Ring. Meanwhile, the orcs suffer defeat and are left empty-handed, unable to achieve their goal of capturing the Ring.

f. (31/PD/TT)

Picture 4.6



1.13.05-1.13.34

Samwise vs Frodo

The Lord of the Rings: The Two Towers

Analysis:

In the intense exchange between Samwise and Frodo, Samwise expresses his concern that the ring has begun to exert its corrupting influence on Frodo. However, Frodo vehemently denies experiencing any negative effects and insists on continuing to bear

the ring. The game model that can be applied to this situation is the Prisoner's Dilemma.

In this scenario, Samwise finds himself caught in a dilemma. On one hand, he recognizes the destructive power of the ring and understands the potential harm it can inflict on Frodo and their mission. He genuinely cares for Frodo's well-being and wishes to protect him from the ring's influence. This perspective aligns with the cooperative approach in the Prisoner's Dilemma, where the players work together to achieve the best possible outcome.

On the other hand, Frodo's determination to carry the ring remains steadfast. He is convinced that he can resist its corrupting allure and believes that continuing on this path is the only way to fulfill their mission. Frodo's perspective aligns with the competitive approach in the Prisoner's Dilemma, where each player acts in their self-interest, pursuing their individual goals.

The result of this game is positive for Frodo, as he maintains his resolve to carry the ring, driven by his conviction and belief in his own strength. However, the result is negative for Samwise, who not only loses the argument with Frodo but also must confront the increasingly toxic behavior exhibited by Frodo due to the ring's influence. Samwise must grapple with the burden of watching his dear friend succumb to the ring's allure and the potential consequences that may arise from Frodo's deteriorating state.

Ultimately, the dynamics between Samwise and Frodo in this situation reflect the complexity and challenges of the Prisoner's Dilemma. Samwise must navigate his loyalty to Frodo and their mission while also confronting the harsh reality of Frodo's changing behavior.

g. (33/PD/TT)

Picture 4.7



1.54.00-1.55.40

Frodo and Samwise vs Faramir

The Lord of the Rings: The Two Towers

Analysis:

In the encounter between Faramir, Frodo, and Samwise, Faramir becomes aware of Frodo's possession of the ring and expresses his desire to claim it for himself. However, both Frodo and Samwise firmly oppose this proposition. The game model that can be applied to this situation is the Prisoner's Dilemma.

In this scenario, Faramir finds himself faced with a dilemma. On one hand, if Faramir were to acquire the ring alone, it could potentially lead to disastrous consequences for Frodo and Samwise, as well as for their mission to destroy the ring. This aligns with the competitive approach in the Prisoner's Dilemma, where each player acts in their self-interest, pursuing their individual goals.

On the other hand, Frodo and Samwise, recognizing the immense danger and corrupting influence of the ring, resist Faramir's desire to claim it. They understand the potential harm that could befall not only themselves but also the world if the ring were to fall into the wrong hands. This perspective aligns with the cooperative approach in the Prisoner's Dilemma, where the players work together to achieve the best possible outcome.

The result for Faramir can be positive if he succeeds in taking control of the ring from Frodo. However, this outcome can also be negative if Faramir, like others before him, falls under the ring's corrupting influence and is unable to control its power. The result for Frodo is negative if he loses the ring and the journey abruptly ends, as the fate of Middle-earth hangs in the balance. Alternatively, the result can be positive for both Frodo and Faramir if Faramir respects Frodo's mission and refrains from taking the ring, allowing Frodo to continue his journey and ultimately save the world from the ring's destructive power.

Ultimately, the decision and actions taken by Faramir, Frodo, and Samwise in this situation will determine the outcome of the Prisoner's Dilemma they find themselves in. Their choices will either lead to a positive resolution, where Frodo can fulfill his duty and save the world, or a negative outcome, where the ring falls into the wrong hands and the journey ends in failure.

h. (34/PD/TT)

Picture 4.8



2.30.32-2.30.45

Frodo vs Faramir

The Lord of the Rings: The Two Towers

Analysis:

In the aftermath of witnessing the destruction of Osgiliath, Frodo expresses his desire to be released by Faramir so that he can fulfill his duty of bearing the ring to Mordor. However, Faramir remains resolute and does not grant Frodo's request. The game model that can be applied to this situation is the Prisoner's Dilemma.

In this scenario, Frodo and Faramir find themselves in a dilemma. If Frodo succeeds in bringing the ring to Mordor and destroying it, the potential for destruction and devastation caused by Sauron would be significantly reduced. This aligns with the cooperative approach in the Prisoner's Dilemma, where the players work together for a mutually beneficial outcome.

However, if Faramir were to keep the ring for himself, it could lead to disastrous consequences. The ring's corrupting influence and the power it holds make it a dangerous possession. If Faramir were unable to resist its allure and control its power, the result would be negative for both of them. The ring falling into Sauron's hands would spell doom for the world.

The positive result lies in Faramir refraining from keeping the ring and allowing Frodo to continue his journey. By doing so, Faramir not only gives Frodo the opportunity to fulfill his duty but also contributes to the potential salvation of the world. This outcome is positive for both Frodo and Faramir, as they align their goals to prevent further destruction and the dominance of evil.

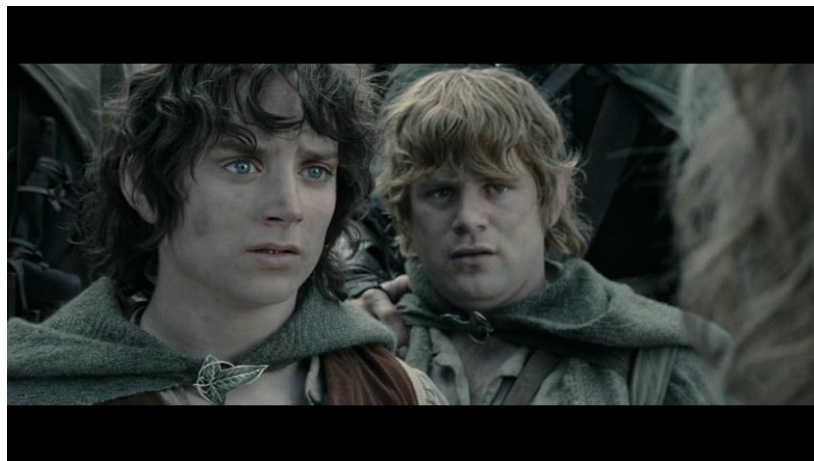
On the other hand, if Faramir were to succumb to the temptation of the ring and keep it for himself, it would lead to a negative outcome. Frodo's journey would be cut short, and the world would be left vulnerable to Sauron's wrath.

Ultimately, the decisions made by Frodo and Faramir in this situation will determine the outcome of the Prisoner's Dilemma they

find themselves in. By choosing cooperation and prioritizing the destruction of the ring, they have a chance at a positive resolution. However, succumbing to the temptation of power and self-interest would result in a negative outcome for both of them. After seeing Osgiliath burned, Frodo wants Faramir to release him so he can finish his duty to bear the ring to Mordor,

i. **(37/PD/TT)**

Picture 4.9



2.47.06-2.47.30

Faramir vs Frodo

The Lord of the Rings: The Two Towers

Analysis:

In the scene where Faramir contemplates releasing Frodo to continue his journey to Mordor despite the potential consequences, a game model known as the Prisoner's Dilemma can be applied.

In this scenario, Faramir finds himself in a dilemma where he must choose between following his duty and keeping Frodo as a

captive or releasing him to continue the journey. The potential consequences raised by Madril add an element of risk to the decision.

By deciding to release Frodo, Faramir takes the sacrificial path, prioritizing the greater mission of destroying the ring over his own safety. This selfless act aligns with the cooperative strategy in the Prisoner's Dilemma, where the players choose to collaborate for the mutual benefit.

However, the outcome for Faramir is negative as he willingly accepts the consequences that may befall him for his decision. He is prepared to face the forfeiture or punishment that may come from releasing Frodo, demonstrating his willingness to prioritize the quest's success over personal gain or preservation.

On the other hand, the result for Frodo is positive. Faramir's decision allows him to continue his journey to Mordor, bringing him closer to the ultimate goal of destroying the ring. Frodo benefits from Faramir's sacrifice, as he is given the opportunity to fulfill his duty and potentially save the world from the looming threat of Sauron.

In this Prisoner's Dilemma, Faramir's selfless act of releasing Frodo represents a cooperative strategy, with the negative consequence falling on Faramir himself. Frodo, on the other hand, gains a positive outcome as he can continue his crucial mission.

j. (50/PD/RK)

Picture 4.10



1.44.13-1.44.15

Frodo vs Smeagol

The Lord of the Rings: The Return of the King

Analysis:

In the scene where Frodo has the opportunity to retaliate against Smeagol but chooses to let him go, a game model known as the Prisoner's Dilemma can be applied.

Frodo's decision to spare Smeagol can be seen as a cooperative strategy in the Prisoner's Dilemma, where he chooses not to retaliate despite being provoked. Frodo empathizes with Smeagol, recognizing that they both share a connection to the ring and its corrupting influence. He believes that showing mercy and compassion might lead to a positive outcome.

However, Smeagol takes advantage of Frodo's mercy and uses it as an opportunity to deceive and attack him once again. This

outcome reveals that Smeagol's intentions were not aligned with Frodo's cooperative approach. Instead, Smeagol exploits Frodo's trust and vulnerability to further his own agenda of obtaining the ring.

The result for Smeagol is positive in this scenario because Frodo's decision to let him go creates an opening for Smeagol to attack and potentially acquire the ring. His deceptive tactics allow him to take advantage of Frodo's goodwill.

Conversely, the result for Frodo is negative. By choosing not to retaliate and showing mercy, Frodo falls victim to Smeagol's betrayal. His belief in the potential for redemption and empathy leads to a moment of vulnerability, allowing Smeagol to strike when Frodo is off guard.

In this particular Prisoner's Dilemma, Frodo's cooperative strategy does not yield the desired positive outcome. Instead, Smeagol takes advantage of Frodo's trust and compassion, resulting in a negative outcome for Frodo.

2. Stag Hunt

a. (28/SH/TT)

Picture 4.11



51.04

Frodo and Samwise vs Gollum

The Lord of the Rings: The Two Towers

Analysis:

In the situation where Frodo and Samwise are inclined to run towards the open black gate of Mordor, Gollum intervenes, attempting to dissuade them from their course of action. The game model that best represents this scenario is the Stag Hunt.

Within the framework of the Stag Hunt, Smeagol (Gollum) aims to persuade Frodo and Samwise to cooperate with him. Smeagol recognizes that if they were to run straight through the gate, they would risk being captured, leading to the return of the Ring to Sauron. Instead, Smeagol asserts that he possesses knowledge of a safer route to Mordor.

The dilemma for Frodo and Samwise lies in their decision-making process. On one hand, they may be tempted to act independently, running directly through the gate in the hopes of reaching their destination quickly. However, this approach carries a significant risk of being detected by Sauron's forces and potentially losing the Ring.

Alternatively, by cooperating with Smeagol, Frodo and Samwise may have access to a safer path, decreasing the likelihood of discovery and increasing their chances of successfully completing their mission. This collaborative approach aligns with the essence of the Stag Hunt game model.

Ultimately, the decision made by Frodo and Samwise will determine the course of their journey. The success of their quest to destroy the Ring hinges on their ability to weigh the potential risks of running through the gate against the possibility of finding a safer route in cooperation with Smeagol.

b. (32/SH/TT)

Picture 4.12



1.53.02-1.53.45

Frodo vs Samwise

The Lord of the Rings: The Two Towers

Analysis:

In the critical moment when Samwise suggests that Frodo use the Ring as a means of escape, Frodo hesitates and ultimately refuses the idea. Recognizing the inherent risks, Frodo understands that using the Ring would reveal their location to Sauron. The game model that best reflects this situation is indeed the Stag Hunt.

Within the context of the Stag Hunt, Samwise and Frodo are faced with a cooperative decision-making process. Samwise proposes a potential course of action, urging Frodo to use the Ring to secure their escape. However, Frodo demonstrates strategic thinking and prioritizes the long-term objective of keeping their whereabouts concealed from Sauron's watchful gaze.

By choosing not to use the Ring and cooperating with Samwise's suggestion, Frodo acknowledges that the potential benefits of immediate escape are outweighed by the substantial risks involved. Their collaborative decision increases the likelihood of successfully evading Sauron's detection and continuing their quest to destroy the Ring.

Consequently, the outcome for both Frodo and Samwise can be considered positive. By embracing cooperation and adhering to Frodo's judgment, their chances of eluding capture and progressing further on their journey are significantly enhanced. The Stag Hunt game model illustrates the importance of their mutual agreement and alignment in making strategic choices that maximize their overall success.

c. **(36/SH/TT)**

Picture 4.13



2.47.06-2.47.30

Samwise vs Frodo

The Lord of the Rings: The Two Towers

Analysis:

In a pivotal moment when Frodo expresses his desire to abandon the burden of carrying the Ring, Samwise steps in and provides unwavering encouragement, urging Frodo to press on. Recognizing the significance of their situation, Frodo agrees to Samwise's suggestion. The game model that best captures this scenario is indeed the Stag Hunt.

Within the framework of the Stag Hunt, Frodo and Samwise find themselves facing a critical cooperative decision. Frodo's inclination to give up represents a potential divergence in their paths, while Samwise's insistence on continuing the journey aligns with the cooperative objective. They understand that their best chance of success lies in working together towards the common goal of destroying the Ring and bringing about peace to the world.

By choosing to cooperate and agree on the necessity of continuing the arduous journey together, Frodo and Samwise increase their chances of success. They acknowledge that their mutual support and determination are vital for overcoming the challenges that lie ahead. The Stag Hunt game model emphasizes the significance of collaboration and alignment in maximizing the likelihood of achieving their ultimate objective.

As a result, both Frodo and Samwise experience a positive outcome. Frodo's decision to heed Samwise's encouragement and

persevere ensures that their mission remains intact. By continuing the journey together, they enhance their collective strength and resilience, heightening their potential to overcome obstacles and fulfill their critical role in bringing about a brighter future for all.

d. (45/SH/RK)

Picture 4.14



1.04.58-1.06.05

Frodo vs Samwise

The Lord of the Rings: The Return of the King

Analysis:

In a tense moment, Samwise expresses his genuine desire to assist Frodo in carrying the Ring, but Frodo, overcome by the weight of his burden, refuses Samwise's help. In his emotional state, Frodo accuses Samwise of harboring ulterior motives, suggesting that Samwise desires to possess the Ring for himself. Furthermore, Frodo harshly tells Samwise to go home. The game model that encapsulates this scene is indeed the Stag Hunt.

Within the framework of the Stag Hunt, Frodo and Samwise find themselves in a situation where cooperation is paramount. However, their conflicting emotions and miscommunications lead to a temporary fracture in their relationship. The Stag Hunt game model highlights the importance of collaboration and staying together, as separating would diminish their chances of successfully completing their duty.

Despite the tension and accusations, the result of this game is ultimately positive. Both Frodo and Samwise recognize that their shared objective of destroying the Ring can only be accomplished by continuing the journey together. They understand that their chances of success are significantly greater when they are united, even in the face of internal conflicts.

By persevering through the momentary discord, Frodo and Samwise demonstrate their resilience and commitment to their mission. They reaffirm their bond and reaffirm their shared purpose, knowing that their mutual trust and support are indispensable for surmounting the challenges ahead.

In essence, the Stag Hunt game model reinforces the significance of cooperation and unity, even during times of disagreement. Frodo and Samwise choose to set aside their differences and continue their journey together, ensuring a higher probability of fulfilling their duty and achieving their ultimate objective.

e. (48/SH/RK)

Picture 4.15



1.41.32-1.41.50

Frodo vs Galadriel

The Lord of the Rings: The Return of the King

Analysis:

In a moment of dire peril, Frodo recollects that he possesses the light of Earendil, gifted to him by Galadriel. He swiftly employs this radiant light to frighten Shelob, the monstrous spider lurking in the tunnel, and prevent her from devouring him. The game model that encapsulates this scene is indeed the Stag Hunt.

Within the context of the Stag Hunt, Frodo is faced with a decision on how to best utilize the resources at his disposal. By utilizing the light of Earendil, Frodo leverages the assistance provided by Galadriel, thereby ensuring his own survival. This strategic choice aligns with the cooperative objective of the Stag Hunt game model.

The outcome of this scenario is positive for both Frodo and Galadriel. Frodo's quick thinking and utilization of Galadriel's gift enable him to escape the clutches of Shelob and continue his journey to destroy the Ring. This pivotal moment ensures that Frodo remains on his path and contributes to the collective effort of saving Middle-earth from the looming threat of Sauron.

Simultaneously, Galadriel's assistance proves valuable, as her aid through the bestowal of the light of Earendil serves its intended purpose. By providing Frodo with a means to combat Shelob, Galadriel plays a crucial role in safeguarding Frodo's life and enabling the mission's progression. The result of their cooperation strengthens their mutual cause and contributes to the broader objective of defeating Sauron and ensuring the safety of the entire world.

In summary, the Stag Hunt game model exemplifies the strategic utilization of resources and cooperation between Frodo and Galadriel. By employing the light of Earendil, Frodo successfully overcomes the perilous encounter with Shelob, ultimately leading to positive outcomes for both Frodo and Galadriel. Their collective efforts not only ensure Frodo's survival but also contribute to the ongoing quest to destroy the Ring and protect the world from Sauron's threat.

3. Bach or Stravinsky

a. (24/BS/FR)

Picture 4.16



2.45.48-2:47:33

Frodo vs Samwise

The Lord of the Rings: The Fellowship of the Ring

Analysis:

In a moment of self-sacrifice, Frodo attempts to leave his friends behind and carry the Ring alone, driven by his desire to spare them from the struggles and dangers he faces. However, Samwise steadfastly refuses to abandon Frodo and continues to follow him. This unwavering loyalty leads to a critical event where Samwise nearly drowns in a river, prompting Frodo to return and rescue him. The game model that can be applied to this scene is not specifically the Bach or Stravinsky game, but rather a representation of loyalty and friendship within a cooperative framework.

In this scenario, the bond between Frodo and Samwise exemplifies the depth of their friendship and the inherent trust they share. While Samwise may not possess the same physical prowess as Frodo when it comes to fighting orcs, he offers unwavering emotional support and companionship. This cooperative dynamic aligns with the essence of the scene, showcasing the importance of camaraderie and mutual aid in the face of adversity.

The result of this cooperative relationship is favorable for both Frodo and Samwise. Frodo benefits from the companionship and support Samwise provides, which bolsters his spirits and gives him renewed strength to continue the journey to Mordor. Samwise, in turn, finds fulfillment and happiness in being able to accompany his best friend, despite the challenges they encounter along the way.

Although Samwise may not possess the same level of combat effectiveness as Frodo, his contribution in terms of friendship and emotional support proves invaluable. Frodo recognizes the significance of having a loyal companion by his side, which outweighs any perceived limitations Samwise may have in battle.

Ultimately, the cooperative relationship between Frodo and Samwise ensures a better outcome for both characters. Frodo gains a steadfast companion, and Samwise finds fulfillment in fulfilling his role as a loyal friend. Together, they navigate the perils of their journey, overcoming obstacles and forging a bond that strengthens their resolve and propels them towards their shared objective.

b. (30/BS/TT)

Picture 4.17



52.18-52.30

Samwise vs Frodo

The Lord of the Rings: The Two Towers

Analysis:

In a challenging predicament, Samwise finds himself at odds with Frodo's decision to trust Gollum, a character Samwise deeply mistrusts. Despite his reservations, Samwise must reconcile his doubts and choose to follow Frodo on their perilous journey. The game model that aligns with this situation is not specifically the Bach or Stravinsky game, but rather a representation of trust and cooperation amidst uncertainty.

Within this context, Frodo's trust in Gollum becomes a focal point for their cooperative dynamics. Despite Samwise's skepticism, he recognizes the importance of supporting Frodo's decisions to ensure the successful completion of their mission. In this

cooperative framework, both Frodo and Samwise must find a way to work together despite their differing perspectives on Gollum.

The result of this cooperative effort is advantageous for both Frodo and Samwise, albeit with different implications. Frodo's trust in Gollum provides him with an ally who possesses critical knowledge and insights regarding the treacherous terrain they must traverse. From Frodo's perspective, this cooperation with Gollum aligns with his strategic vision and increases their chances of success.

For Samwise, the result is favorable because he can continue to provide Frodo with companionship and support on their journey, even though he remains wary of Gollum's presence. Despite his doubts, Samwise recognizes that cooperation with Frodo is essential for their shared objective of reaching the mountain and destroying the Ring.

While the level of trust in Gollum differs between Frodo and Samwise, their mutual cooperation remains vital. Frodo's conviction in Gollum's trustworthiness may put Samwise on edge, but he adapts to the circumstances and remains committed to supporting Frodo in his mission.

In summary, the cooperative relationship between Frodo and Samwise, despite their differing perspectives on Gollum, is crucial for their progress. Frodo's trust in Gollum shapes their strategic approach, while Samwise's commitment to Frodo's well-being

ensures that he can continue to provide companionship throughout their arduous journey. Together, they navigate the challenges and uncertainties, striving to reach their shared goal while managing the complexities introduced by Gollum's presence.

c. **(56/BC/RK)**

Picture 4.18



2.25.50-2.26.20

Aragorn vs Frodo

The Lord of the Rings: The Return of the King

Analysis:

In a critical moment, Aragorn devises a plan to aid Frodo by diverting Sauron's attention, allowing Frodo to carry the Ring unnoticed by Sauron's vigilant gaze. This strategic move necessitates a cooperative effort and mirrors the essence of the Bach or Stravinsky game model, where risking oneself for the benefit of others is essential for achieving a favorable outcome.

Cooperation becomes paramount as Aragorn and his companions recognize the significance of their collective actions in supporting Frodo's mission. By working together and implementing the plan, they enhance Frodo's chances of successfully destroying the Ring and bringing about a positive outcome.

The result of this cooperative endeavor is advantageous for both Frodo and Aragorn. Frodo benefits from the distraction created by Aragorn and the others, providing him with a higher probability of evading Sauron's attention and carrying out his mission undetected. The success of this diversion ultimately hinges on the cooperation and sacrifice of Aragorn and his allies.

For Aragorn, the result is also favorable, as his participation in the plan demonstrates his commitment to the greater cause. By risking themselves and diverting Sauron's focus, Aragorn and his companions contribute significantly to Frodo's chances of success. Their actions align with the cooperative objective of the Bach or Stravinsky game model, wherein individuals must prioritize the collective objective over personal risk.

Although the risks involved in distracting Sauron are substantial, the potential payoff for both Frodo and Aragorn outweighs the potential losses. If their cooperative efforts prove successful, Frodo has a greater chance of destroying the Ring, and Aragorn's strategic decision to aid Frodo solidifies his role as a crucial ally in the quest to defeat Sauron.

In summary, the cooperative relationship between Aragorn, his allies, and Frodo exemplifies the essence of the Bach or Stravinsky game model. By devising a plan to divert Sauron's attention, Aragorn and his companions take on significant risks to support Frodo's mission. The result is positive for both Frodo and Aragorn, as their cooperative efforts increase Frodo's chances of successfully destroying the Ring and achieving the ultimate goal of defeating Sauron.

d. **(56/BC/RK)**

Picture 4.19



2.27.25

Samwise vs Frodo

The Lord of the Rings: The Return of the King

Analysis:

In a desperate situation where Frodo finds himself parched and without water, Samwise selflessly offers his last remaining supply to quench Frodo's thirst. This act of sacrifice and cooperation aligns

with the Bach or Stravinsky game model, where individuals must make decisions that prioritize the well-being of others, even at the expense of personal risk.

Samwise recognizes the criticality of Frodo's well-being and the importance of ensuring his survival to complete their mission. By offering his last water to Frodo, Samwise demonstrates a cooperative spirit and a willingness to put Frodo's needs above his own.

The result of this selfless act is favorable for both Frodo and Samwise. Frodo receives the water he desperately needs to replenish his strength and continue the arduous journey. This enables him to maintain his focus on the task at hand and increases the likelihood of successfully completing their mission.

For Samwise, the result is also positive, despite the potential risks he faces by giving away his last water. His act of generosity and cooperation reinforces their bond and strengthens their partnership. Although Samwise may still be able to continue the journey without immediately drinking the water he provided, his willingness to sacrifice for Frodo's well-being underscores the depth of their friendship and the cooperative nature of their relationship.

Ultimately, Frodo benefits from the water given by Samwise, ensuring his ability to persevere through the challenges that lie ahead. Samwise, in turn, derives satisfaction from supporting his

friend and contributing to the collective goal of completing their mission.

In summary, the cooperative relationship between Frodo and Samwise shines through in this instance. Samwise's willingness to offer his last water to Frodo exemplifies the spirit of the Bach or Stravinsky game model, where cooperation and selflessness are paramount. The result is positive for both characters, as Frodo receives the necessary hydration to continue the journey, and Samwise finds fulfillment in supporting his friend's well-being and contributing to their shared mission.

4. Matching Pennies

a. (09/MP/FR)

Picture 4.20



1.02.54-1.03.25

Frodo vs black rider

The Lord of the Rings: The Fellowship of the Ring

Analysis:

In a tense encounter with a Black Rider, Frodo decides to employ the power of the ring to evade his pursuer, believing it will provide him with protection and allow him to escape. This decision reflects the dynamics of the Matching Pennies game model, where each player must select a strategy and anticipate their opponent's move.

Frodo's choice to use the ring as a means of avoiding the Black Rider is an attempt to outwit his adversary and secure a positive outcome. However, the result turns out to be unfavorable for Frodo and advantageous for the Black Rider. Contrary to Frodo's expectation, the ring's power serves as a double-edged sword. Instead of concealing his location, it enables the Black Rider to sense Frodo's presence and deliver a devastating blow, leaving him wounded and vulnerable.

The unexpected turn of events highlights the inherent risks associated with the use of the ring and the complexity of the game unfolding between Frodo and the Black Rider. Frodo's miscalculation and the Black Rider's ability to exploit the situation demonstrate the strategic interplay and the potential consequences of the players' choices.

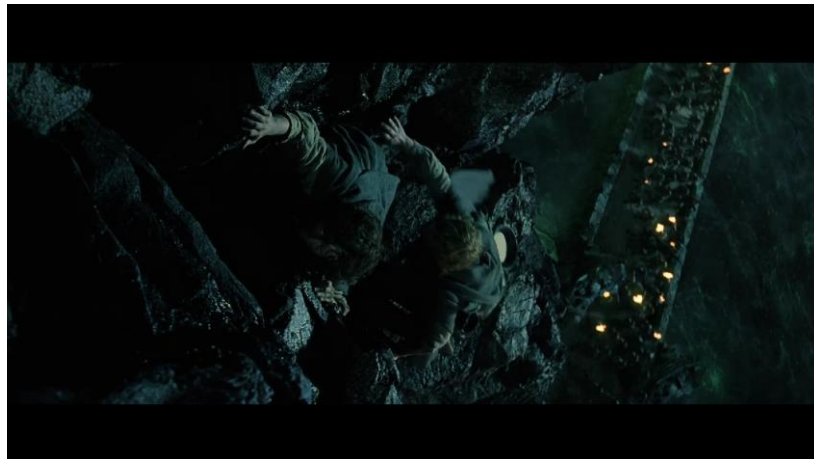
In this instance, Frodo's decision to use the ring represents a tactical error, leading to a negative outcome for him. The Black Rider, on the other hand, benefits from Frodo's misguided move, seizing the opportunity to locate and harm him.

The Matching Pennies game model elucidates the nature of this encounter, showcasing the repercussions of Frodo's choice and the advantage gained by the Black Rider. It serves as a reminder that in strategic interactions, anticipating the opponent's moves accurately is crucial, as even a seemingly advantageous decision can yield unexpected and detrimental outcomes.

In summary, the utilization of the ring by Frodo in an attempt to elude the Black Rider exemplifies the dynamics of the Matching Pennies game model. While Frodo anticipates a positive outcome, his strategy backfires, leading to a negative result for him and a positive result for the Black Rider. This turn of events underscores the intricacies of strategic decision-making and the potential ramifications that can arise in dynamic game situations.

b. **(41/MP/RK)**

Picture 4.21



43.32-43.30

Samwise and Frodo vs Smeagol

The Lord of the Rings: The Return of the King

Analysis:

As Samwise and Frodo press on with their perilous quest to deliver the ring to Mordor, they make the crucial decision to follow Smeagol, who promises to lead them through the treacherous stairs. This moment in their journey aligns with the dynamics of the Matching Pennies game model, where both players take significant risks and their fate hinges on the success or failure of their chosen strategies.

Samwise and Frodo face a high-stakes situation as they must trust Smeagol's guidance to navigate the dangerous stairs. By doing so, they demonstrate their willingness to put their faith in an uncertain ally, knowing that the outcome will heavily influence the overall success of their mission.

The Matching Pennies game model aptly captures the essence of this scene, where Samwise and Frodo must make a pivotal decision with potentially profound consequences. If they successfully traverse the stairs by following Smeagol's lead, the result will be positive for both Frodo and Samwise. Their trust in Smeagol will be rewarded, as they make progress towards their destination while minimizing the risk of encountering further dangers.

Conversely, if Smeagol's intentions prove deceitful and they are led astray or face additional peril, the result will be negative for

Frodo and Samwise. Their trust will have been misplaced, potentially putting them in even greater danger and hindering their progress towards their ultimate goal.

The outcome of this critical moment will ultimately determine the trajectory of their journey. If Samwise and Frodo successfully navigate the stairs with Smeagol's assistance, it will bolster their chances of accomplishing their mission and destroying the ring. However, if their trust is betrayed and they fall victim to Smeagol's deception, it will significantly impede their progress and pose greater challenges.

In summary, the Matching Pennies game model effectively encapsulates the tension and uncertainty surrounding Samwise and Frodo's decision to follow Smeagol through the dangerous stairs. Their choice to trust him represents a high-stakes gamble, with the potential for both positive and negative outcomes. The result will be positive if they safely navigate the stairs, putting them one step closer to fulfilling their quest. Conversely, a negative result awaits them if they are deceived or face further perils along the way.

B. Discussion

In this study, the researcher breakdown the data that found in the research. the data in the research are the game models of game theory that characters of the Lord of the Rings trilogy use while making decisions correlated with the Ring. The researcher tries to group which game models frequently used and which character frequently making decisions correlated with the Ring.

We can infer from the Finding section that the game model that is played the most frequently is Prisoner's Dilemma, followed by Stag Hunt, Bach or Stravinsky, and Matching Pennies, which is played the least frequently. Actually, the most challenging game model is The Prisoner's Dilemma. A player must adopt a non-cooperative strategy, such as sacrificing the other player, in order to achieve the greatest results possible for themselves. In contrast, there are numerous competitive circumstances in the Lord of the Rings film trilogy that force the characters to defeat rivals. Due to these circumstances, the characters frequently adopt the Prisoner's Dilemma type of game.

The Stag Hunt game model became the second most frequent used game model by the characters with 20 data. whereas this kind of game model is quite the opposite of the Prisoner's Dilemma because Stag Hunt needs the characters to highly trust and cooperate each other to get the best result. This occurrence happens because in the Lord of the Rings trilogy it's not only about competition among the protagonist and antagonist characters. this trilogy also has a lot of friendship stories between the characters while the carrying the ring. Friendship needs trust and cooperation, and it has an effect on a lot of Stag Hunt model of Game Theory in this trilogy.

Frodo Baggins is one of the characters that frequently makes choices that are connected to the ring. He is the major character in the trilogy and carries the ring from the first film, The Fellowship of the Ring (2001), to the third and final film, The Return of the King (2003). The characters who only appear in a few scenes and don't play major roles in this film, such Shelob and Faramir, are the ones who make decisions regarding the ring the least frequently.

CHAPTER V

CONCLUSION AND SUGGESTION

This is the final chapter of this study. It is separated into three sections: conclusion, implication and suggestion. The first section is the conclusion, which includes the analysis's conclusion and a discussion of the answers to the two problem statements stated in the preceding chapter. The second is implication and the last one is suggestion.

A. Conclusion

After explaining and analyzing the data, the researcher draws conclusions on the Game Theory in The Lord of the Rings film trilogy.

Based on these findings and discussions, the researcher discovered 62 elements of the Game Theory game model in the movie trilogy of The Lord of the Rings: The Fellowship of the Ring (24 data), The Lord of the Rings: The Two Towers (13 data), and The Lord of the Rings: The Return of the King (25 data).

With 31 digits of data, Prisoner's Dilemma is the most frequently utilized game model in this trilogy. This demonstrates how competitive the tale is in these films, particularly because each character wants the ring for themselves. The majority of characters are holders of the ring because it grants them strength and the opportunity to dominate the other rings, which inevitably leads to the conclusion that the holder of the ring is likely to rule the rest of the world. The phrase "*One Ring to Rule Them All*" appears on the ring. On the other hand, the Ring brings about greediness for the characters, as has been seen. And once they have the Ring in their possession, it consumes them, wreaking havoc on both

their bodies and minds. The effects of the Ring on the Characters increase with their possession of it. Smeagol is used as an example; he is insane and has transformed into the evil creature Gollum.

Stag Hunt, which depicts how friendship also occurs in these films, is the second most frequent game model to appear. The researcher makes the assumption that the friendships among the participants were a major factor in Frodo's success in destroying the Ring. They have an unbreakable bond and level of trust. Even though they had to navigate difficult pathways and deal with several disputes, they eventually succeeded.

The least frequent used game model is Matching Pennies with 2 data. The researcher assumes that there is not much gambling thing that characters used in the movies because they apparently have their own strategy to make decision regarding with the Ring.

B. Implications

Over the course of the discussion and analysis of this research, the researcher discovered that the characters in the Lord of the Rings film trilogy frequently used game theory in their decision-making when it came to the Ring. The researcher can also draw the conclusion from this study that game theory, which is essentially a mathematical model and is typically used to economic studies or by mathematicians, can be utilized to examine literary works, in this case The Lord of the Rings movie trilogy.

C. Suggestion

For the benefit of the readers, it is hoped that this study will provide additional insight into how the decision-making processes in the Lord of the Rings film trilogy were examined using game theory, particularly the game theory described by Martin J. Osborne in his book *An Introduction to Game Theory*.

It is hoped that this research will serve as a useful resource for future researchers who are interested in Game Theory or The Lord of the Rings movie trilogy. This study examined the choices made by the characters in the Lord of the Rings film trilogy and used Osborne's game theory to analyze them. Hopefully, the following researcher will use Osborne's game theory to examine other literary works or to delve deeper into the Lord of the Rings trilogy.

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APPENDICES

VALIDATION SHEET

The thesis data entitled *DECISION MAKING BY THE CHARACTERS WITH THE RELATION WITH THE RING IN TOLKIEN'S LORD OF THE RINGS THE MOVIES FROM THE PERSPECTIVE OF GAME THEORY* had been checked and validated by Muhammad Rizal, M. A, on:

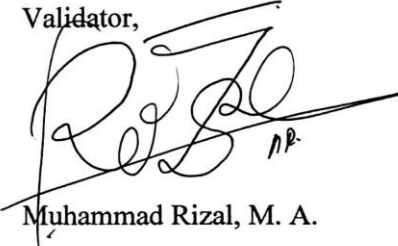
Day : Tuesday

Date : May 9th 2023

The statement made truthfully in accordance with the theory and applicable rules without coercion.



Kartasura, May 9th 2023



Validator,


A handwritten signature in black ink, appearing to be 'Rizal' with a stylized flourish and the initials 'MR' to the right. A horizontal line is drawn across the signature.


Muhammad Rizal, M. A.

NIP. -

No.	Data	Types of Game				Explanation	Comment
		PD	SH	BS	MP		
1 (01/PD/FR)	Scene  Isildur vs Orc <i>The Lord of the Rings: The Fellowship of the Ring</i>	✓				Isildur ambushed by orcs because he carries the ring. The game model of this data is Prisoner's dilemma, Orcs want the ring for themselves so they choose to attack Isildur.	Valid
2 (02/BS/FR)	Frame  Bilbo vs Frodo			✓		Bilbo was holding the ring but then he drops it. He means for Frodo's turn to carry the ring. The game model of this data is Bach or Stravinsky. Bilbo choose to give the ring to Frodo for better purpose even he actually has desire to own it by himself.	Valid

	<i>The Lord of the Rings: The Fellowship of the Ring</i>					
3 (03/PD/FR)	Frame  Gandalf vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>	✓			Gandalf pick up the ring and put it in an envelope then passes the ring to Frodo, Frodo has to carry the ring to Mordor and drop it in the fire. The game model used in this data is Prisoner's Dilemma. Gandalf put the burden on Frodo shoulder to bear the ring.	Valid
4 (03/PD/FR)	Frame 	✓			Orcs captures Gollum and tortured him, forces him to locate the ring because he is the only one know who has the ring for the last time. The game model of this data is Prisoner's Dilemma. Orcs take advantage from Gollum by torture him to tell what orcs want to know.	Valid

	Gollum vs Orc <i>The Lord of the Rings: The Fellowship of the Ring</i>					
5 (05/PD/FR)	Frame  Gandalf vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>	✓			After Gandalf tells about Gollum and Sauron, Frodo scares and wants Gandalf to take the ring instead of him has to bear the ring, but Gandalf refuses it The game model of this data is Prisoner's Dilemma, Frodo has burden to carry the ring because Gandalf doesn't want to carry it.	Valid
6 (06/SH/FR)	Frame		✓		Frodo agrees to carry the ring and start the journey. The game model used in this data is Stag Hunt, Frodo agree to cooperate with Gandalf, Frodo carry the ring and Gandalf do what he can to show the way to Frodo.	Valid

	 <p>Gandalf vs Frodo</p> <p><i>The Lord of the Rings: The Fellowship of the Ring</i></p>						
7 (07/SH/FR)	<p>Scene</p> <p>46.15-46.32</p> <p>Frodo vs Samwise</p> <p><i>The Lord of the Rings: The Fellowship of the Ring</i></p>		✓			<p>When the Black Rider comes, Frodo whose hiding with the other hobbits almost use the ring and spill his locations but Samwise prevent him and hold Frodo's hand. The game model of this data is Stag Hunt, Samwise wants Frodo to cooperate wit him with not use the ring so they will be safe.</p>	Valid
8 (08/PD/FR)	<p>Scene</p> <p>57.25-57.37</p>	✓				<p>Frodo follows Strider to Rivendell, he has no choice except trusting Strider. The game model of this data is Prisoner's Dilemma, Frodo and the other choose to cooperate with</p>	Valid

	Frodo vs Strider <i>The Lord of the Rings: The Fellowship of the Ring</i>					Strider and hope Strider has the same purpose like them.	
9 (09/MP/FR)	Scene 1.02.54-1.03.25 Frodo vs black rider <i>The Lord of the Rings: The Fellowship of the Ring</i>				✓	Black rider attacks Frodo and the other, Frodo use the ring to avoid black rider but end up stabbed by one of them. The game model use in this data is Matching Pennies, he choose to use the ring to avoid Black Rider, hopes it will help him, but instead of hiding himself, the Black Rider can locate him using the ring and stabs him.	Valid
10 (10/PD/FR)	Scene 1.19.32-1.20.20 Elrond vs Gandalf <i>The Lord of the Rings: The</i>	✓				Sir Elrond explain the condition that the ring can't stay in Rivendell to Gandalf ended with the ring must be taken to Mordor. The game model use in this data is Prisoner's Dilemma, Lord Elrond doesn't want the ring stay in Rivendell because it will be dangerous for Rivendell.	Valid

	<i>Fellowship of the Ring</i>						
11 (11/SH/FR)	Scene 1.31.24-1.32.00 Frodo vs Gandalf <i>The Lord of the Rings: The Fellowship of the Ring</i>		✓			Frodo decided to take the ring to Mordor and Gandalf willing to help him. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other	Valid
12 (12/SH/FR)	Scene 1.32.04-1.32.14 Aragorn vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>		✓			Aragorn willing to help Frodo. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other	Valid
13	Dialogue		✓			Legolas willing to help Frodo. The game model of this data is Stag Hunt, rather than	Valid

(13/SH/FR)	<p>LEGOLAS</p> <p>And you have my bow.</p> <p>1.32.18</p> <p>Legolas vs Frodo</p> <p><i>The Lord of the Rings: The Fellowship of the Ring</i></p>				<p>going alone, The journey to Mordor will be safer if they cooperate and help each other</p>	
14 (14/SH/FR)	<p>Dialogue</p> <p>GIMLI</p> <p>And my axe.</p> <p>1.32.20</p> <p>Gimli vs Frodo</p> <p><i>The Lord of the Rings: The</i></p>		✓		<p>Gimli willing to help Frodo. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other</p>	Valid

	<i>Fellowship of the Ring</i>						
15 (15/SH/FR)	Dialogue BOROMIR (CONT'D) If this is indeed the will of the Council, then Gondor will see it done. 1.32.35 Boromir vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>		✓			Boromir willing to help Frodo. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other	Valid
16 (16/SH/FR)	Dialogue SAM Mr. Frodo's not going anywhere without me.		✓			Samwise decided to help Frodo. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other	Valid

	1.32.45 Samwise vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>					
17 (17/SH/FR)	Dialogue MERRY Oi! We're coming too! You'd have to send us home tied up in a sack to stop us. 1.32.54 Merry vs Frodo		✓			Merry decided to help Frodo. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other Valid
18 (18/SH/FR)	Dialogue PIPPIN Anyway ... you need people of intelligence		✓			Pippin decided to help Frodo. The game model of this data is Stag Hunt, rather than going alone, The journey to Mordor will be safer if they cooperate and help each other Valid

	<p>on this sort of mission ... quest ... thing...</p> <p>1.32.54</p> <p>Pippin vs Frodo</p> <p><i>The Lord of the Rings: The Fellowship of the Ring</i></p>						
<p>19</p> <p>(19/PD/FR)</p>	<p>Frame</p> <p>1.42.58</p> <p>Frodo vs Gandalf</p> <p><i>The Lord of the Rings: The Fellowship of the Ring</i></p>	✓				<p>Frodo decide to take the mines trail since they were attacked by Saruman while crossing the hill trail even Gandalf afraid to go to the mines. The game theory used in this data is Prisoner's Dilemma. Gandalf has to follow Frodo through the mines even he scared of it.</p>	Valid
<p>20</p> <p>(20/PD/FR)</p>	<p>Frame</p> <p>2.32.08</p>	✓				<p>Frodo decided to use the ring because Boromir try to snatch the ring from Frodo. The game model use in this data is Prisoner's</p>	Valid

	Frodo vs Boromir <i>The Lord of the Rings: The Fellowship of the Ring</i>				Dilemma. Frodo use the ring so Boromir can't take the ring.	
21 (21/PD/FR)	Scene 2.35.06 Strider vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>	✓			Frodo run to save the ring while strider fight the orcs to buy time. The game model use in this data is Prisoner's Dilemma. Frodo run with the ring so he safe while Strider risks his life to give time for Frodo to run.	Valid
22 (22/PD/FR)	Scene 2.35.10 Strider vs orc <i>The Lord of the Rings: The</i>	✓			Strider fights the orc so they can't take Frodo and the rings. The game model use in this data is Prisoner's Dilemma. Strider and Orcs fight each other. They do not cooperate and risk their life but turns out Strider succeed buy time for Frodo and orcs got nothing.	Valid

	<i>Fellowship of the Ring</i>						
23 (23/PD/FR)	Scene 2.36.50 Merry and Pippin vs Frodo <i>The Lord of the Rings: The Fellowship of the Ring</i>	✓				Merry and pippin distract the orcs while telling Frodo to run and save the ring. The game model use in this data is Prisoner's Dilemma. Merry and Pippin risk their life while Frodo taking advantage of it so he can run.	Valid
24 (24/BS/FR)	Scene 2.45.48-2:47:33 Frodo vs Samwise <i>The Lord of the Rings: The Fellowship of the Ring</i>			✓		Frodo try to leave his friends to carry the ring alone because he doesn't want them to struggle for him, but Samwise follow Frodo until he almost drowns by the river, Frodo came back to save Samwise. The model of game theory used in this scene is Bach or Stravinsky, Samwise maybe not give Frodo much help to fight orcs but he will be happy for the companion his best friend gives.	Valid
25	Scene			✓		Frodo insists he has to keep Gollum alive to show the way to Mordor, Samwise wants to	Valid

(25/BS/TT)	09.16-11.12 Frodo vs Samwise <i>The Lord of the Rings: The Two Towers</i>				kill Gollum because he is dangerous and only aim for the ring. In the end Samwise agree with Frodo. The game model use in this data is Bach or Stravinsky. Samwise let Gollum alive as Frodo says, but he always keeps an eye of him.	
26 (26/SH/TT)	Scene 11.00-11.22 Frodo vs Gollum <i>The Lord of the Rings: The Two Towers</i>		✓		Frodo let Gollum alive but he has to show the way to Mordor. The game model use in this data is Stag Hunt. Smeagol choose to cooperate with Frodo so he will not kill him and Frodo has advantage from Smeagol for showing the way to Mordor	Valid
27 (27/SH/TT)	Frame 40.51 Frodo vs Samwise		✓		Frodo almost use the ring because of the black rider but Samwise take his hand. The game model use in this data is Stag Hunt, Samwise wants Frodo to cooperate with him with not use the ring so they will be safe.	Valid

	<i>The Lord of the Rings: The Two Towers</i>						
28 (28/SH/TT)	Scene 51.04 Frodo and Samwise vs Gollum <i>The Lord of the Rings: The Two Towers</i>		✓			Frodo and Samwise want to run because the black gate of Mordor opened but Gollum hold them to not go there. The game model of this data is Stag Hunt. Smeagol wants them to cooperate with him because if they run straightly through the gate they will get busted and the ring goes back to Sauron, but Smeagol knows safer way to Mordor	Valid
29 (29/SH/TT)	Scene 51.51-.52.31 Gollum vs Frodo <i>The Lord of the Rings: The Two Towers</i>		✓			Gollum says that he is having the safer way to bring the ring into the Mordor and Frodo decided to follow Gollum. The game model of this data is Stag Hunt. They choose to cooperate to arrive to Mordor safely.	Valid
30	Scene			✓		Samwise doesn't trust Gollum but Frodo trust Gollum. Sam has to deal with Frodo decision and follow them. The game model	Valid

(30/BS/TT)	52.18-52.30 Samwise vs Frodo <i>The Lord of the Rings: The Two Towers</i>					of this data is Bach or Stravinsky. In order to finish the journey and bring the ring to the mountain Samwise has to cooperate with Frodo even he doesn't trust Gollum	
31 (31/PD/TT)	Scene 1.13.05-1.13.34 Samwise vs Frodo <i>The Lord of the Rings: The Two Towers</i>	✓				Samwise say that the ring showed its effect to Frodo, but Frodo insist that the ring isn't and because of that Frodo still carrying the ring. the game model of this data is Prisoner's Dilemma. Samwise has to face Frodo's behavior that getting more toxic because of the ring as the time goes by while Frodo doesn't feel it.	Valid
32 (32/SH/TT)	Scene 1.53.02-1.53.45 Frodo vs Samwise <i>The Lord of the Rings: The Two Towers</i>		✓			Samwise suggested Frodo to use the ring to get out from there but Frodo refused it because if he uses it Sauron will know his location. The game model of this data is Stag Hunt. The decide to cooperate and agree with Frodo decision for better result.	Valid

33 (33/PD/TT)	Scene 1.54.00-1.55.40 Frodo and Samwise vs Faramir <i>The Lord of the Rings: The Two Towers</i>	✓				Faramir found out Frodo is carrying the ring, he wants it for his own but Frodo and Samwise don't agree with that. The ring doesn't present on the scene, the game model was prisoner's dilemma because if Faramir have it alone they will be disaster for the others and if Frodo finished his duty it will be much better ending for all of them	
34 (34/PD/TT)	Scene 2.30.32-2.30.45 Frodo vs Faramir <i>The Lord of the Rings: The Two Towers</i>	✓				After seeing Osgiliath burned, Frodo wants Faramir to release him so he can finish his duty to bear the ring to Mordor, Faramir doesn't mangle. The game model is prisoner's dilemma because if Frodo succeed. bring the ring to Mordor it will be less destruction made by Sauron than Faramir has the ring for himself.	Valid
35 (35/PD/TT)	Scene 2.43.30-2.43.42 Samwise vs Frodo	✓				Frodo almost use the ring and almost get caught by Nazgul but Samwise jump at Frodo and save him. The ring does present in this scene. The game model is prisoner's dilemma because Samwise save Frodo so they can continue the journey and have better	Valid

	<i>The Lord of the Rings: The Two Towers</i>					result than letting Frodo get caught by Nazgul.	
36 (36/SH/TT)	Scene Frodo vs Samwise <i>The Lord of the Rings: The Two Towers</i>		✓			Frodo wants to give up to carry the ring but Samwise encourage him that he has to continue it and Frodo agree with that. The game model of this data is Stag Hunt. Frodo and Samwise cooperate and agree to continue the journey, if they do this together the chance to be succeed is higher.	Valid
37 (37/PD/TT)	Scene 2.47.06-2.47.30 Faramir vs Frodo <i>The Lord of the Rings: The Two Towers</i>	✓				Faramir wants to release Frodo to continue journey to Mordor but Madril said that it will be forfeit if he released Frodo, but Faramir take the consequences. The game model in this scene is Prisoner's Dilemma. Faramir decide to sacrifice himself so Frodo can continue the journey to bring the ring to Mordor.	Valid
38 (38/PD/RK)	Scene 2.55-4.30	✓				Deagol found the ring in the river but Smeagol wants it, he killed Deagol for it. The ring present in this scene. The game model is prisoner's dilemma because	Valid

	Smeagol vs Deagol <i>The Lord of the Rings: The Return of the King</i>				Smeagol wants the ring for himself and Deagol has to die for it.	
39 (39/PD/RK)	Scene 17.15-17.55 Samwise vs Smeagol <i>The Lord of the Rings: The Return of the King</i>	✓			Samwise hear Smeagol talking with himself about killing hobbits and taking the ring, so he takes an action try to kill Smeagol. The game model is prisoner's dilemma, because Samwise know what's Smeagol planning, he tries to kill Smeagol so they can continue to Mordor safely.	Valid
40 (40/PD/RK)	Scene 40.42-41.45 Samwise and Smeagol vs Frodo	✓			Frodo wants to go to the dead city because the of the ring, Samwise and Smeagol holding him so he can't go there. The game model is prisoner's dilemma because if they let Frodo go there the journey is useless and the world unsaved, so they prevent him and they could finish the duty.	Valid

	<i>The Lord of the Rings: The Return of the King</i>						
41 (41/MP/RK))	Scene 43.32-43.30 Samwise and Frodo vs Smeagol <i>The Lord of the Rings: The Return of the King</i>				✓	Continuing the journey to bring the ring to Mordor, Samwise and Frodo decided follow Smeagol through the dangerous stairs. The game model of this scene is matching pennies because Sam and Frodo risk it all, whether they gonna be safe climbing the stairs and trust Smeagol or will be failed because one of those factor doesn't goes well.	Valid
42 (42/SH/RK)	Scene 43.32-43.30 Samwise vs Frodo <i>The Lord of the Rings: The Return of the King</i>		✓			Sam and Frodo decided to go together follow Smeagol climbs the stairs to bring the ring to Mordor. The game model is stag hunt because they will be safer if they go together watching each other back than go alone.	Valid
43	Scene			✓		Smeagol almost take the ring because he sees it, Samwise pull his sword and prevent him. The ring presence in this scene, the game	

(43/BC/RK)	56.57-57.14 Samwise vs Smeagol <i>The Lord of the Rings: The Return of the King</i>				model is Bach or Stravinsky because Smeagol got nothing from that action and Sam at least could save the ring at that moment	
44 (44/PD/RK)	Scene 57.29-58.07 Samwise vs Smeagol <i>The Lord of the Rings: The Return of the King</i>	✓			Smeagol provokes Frodo that Sam wants the ring and he will ask for it later. The ring presence in this scene, the game model is prisoner's dilemma because Smeagol try to get rid of Samwise in order to get better result for his own self.	Valid
45 (45/SH/RK)	Scene 1.04.58-1.06.05 Frodo vs Samwise <i>The Lord of the Rings: The Return of the King</i>		✓		Samwise wants to help Frodo to carry the ring but Frodo refused it and accusing that Sam wants to take over the ring for himself also tell him to go home. The game model of this scene is Stag Hunt, if they are separated the chance to finish the duty will be smaller.	Valid

46 (46/PD/RK)	Scene 1.02.00-1.06.00 Smeagol vs Samwise <i>The Lord of the Rings: The Return of the King</i>	✓			Smeagol set up Samwise so it looks like Samwise betrayed Frodo and wants to take over the ring. The game model of this scene is prisoner's dilemma, Smeagol actually wants the ring for himself, he makes Frodo hates Samwise so he can take the ring easier from Frodo.	Valid
47 (47/PD/RK)	Scene 1.37.42-1.38.13 Smeagol vs Frodo <i>The Lord of the Rings: The Return of the King</i>	✓			Smeagol leads Frodo to go inside the tunnel, Frodo go inside the tunnel in order to bring the ring to Mordor. The game model is prisoner's dilemma because Smeagol try to trap Frodo and it will be easier for him to take the ring	Valid
48 (48/SH/RK)	Scene 1.41.32-1.41.50 Frodo vs Galadriel		✓		Frodo remember that he has given light of Earendil by Galadriel, he use it to scary Shelob that trying to eat him in the tunnel. The game model use in this scene is stag hunt, he used the help of Galadriel to save his life rather than not using it.	Valid

	<i>The Lord of the Rings: The Return of the King</i>					
49 (49/PD/RK)	Scene 1.43.35-1.43.47 Smeagol vs Frodo <i>The Lord of the Rings: The Return of the King</i>	✓			Smeagol attacks Frodo and tries to snatch the ring from him. The game model use in this scene is prisoner's dilemma, Smeagol will use the ring for his own self and doesn't care if he has to kill Frodo for it.	Valid
50 (50/PD/RK)	Scene 1.44.13-1.44.15 Frodo vs Smeagol <i>The Lord of the Rings: The Return of the King</i>	✓			Frodo can handle Smeagol that attacked him for the ring and strangling him but he chooses to let him go. The game model used in this scene is prisoner's dilemma, Frodo feel that the ring which drives Smeagol and himself like that so they have the same position. How ever turns out Smeagol only tricks Frodo and attacks him again.	Valid
51 (51/SH/RK)	Scene 1.45.54-1.46.20		✓		Frodo fainted but Galadriel help him through memory about what she ever said about carrying the ring to him and Frodo could stand up because of that. The game model	Valid

	Frodo vs Galadriel <i>The Lord of the Rings: The Return of the King</i>					used in this scene is stag hunt Galadriel helps Frodo with memory so Frodo could continue journey to Mordor.	
52 (52/PD/RK)	Scene 1.50.15 Samwise vs Shelob <i>The Lord of the Rings: The Return of the King</i>	✓				Samwise provokes and fights Shelob to save Frodo which carrying the ring that has been stabbed by Shelob. The game model used in this scene is prisoner's dilemma, Samwise has to defeat Shelob and save Frodo so they can continue the journey.	Valid
53 (53/PD/RK)	Scene 1.53.37-1.54.35 Samwise vs Frodo <i>The Lord of the Rings: The Return of the King</i>	✓				Orcs are coming and Sam couldn't carry Frodo to hide, so he left him taken by orcs. The game model used in this scene is The Prisoner's Dilemma, if Sam risk it to stay with Frodo it will be total lost for them because they failed the journey, but because Sam hides, he could continue journey even he has to let Frodo taken by orcs.	Valid
54	Scene	✓				Sam decided to fight against orcs to in his way to find Frodo. The game model used in	Valid

(54/PD/RK)	2.20.55-2.21.05 Samwise vs Frodo <i>The Lord of the Rings: The Return of the King</i>					this scene is Prisoner's Dilemma, Sam has to defeat orcs if he wants to find Frodo and continue the journey to bear the ring.	
55 (55/BC/RK)	Scene 2.22.07-2.22.21 Samwise vs Frodo <i>The Lord of the Rings: The Return of the King</i>			✓		Sam bring back the ring to Frodo after he took it to keep it safe before Frodo taken by orcs. The game model use in this scene is Bach or Stravinsky. Samwise has to cooperate with Frodo by give the ring back to him in order to finish the duty even though Sam doesn't like how the ring affects Frodo.	Valid
56 (56/BC/RK)	Scene 2.25.50-2.26.20 Aragorn vs Frodo <i>The Lord of the Rings: The Return of the King</i>			✓		Aragorn wants to help Frodo by distract Sauron so Frodo can bring the ring without seen by Sauron eye. The game model used in this game is Bach or Stravinsky because to get better result Aragorn and the other have to risk their selves to help Frodo. If they don't cooperate with him, Frodo chance to destroy the ring might be smaller.	Valid

57 (56/BC/RK)	Frame 2.27.25 Samwise vs Frodo <i>The Lord of the Rings: The Return of the King</i>			✓		In the middle of the road, Frodo runs out of water and he is so thirsty, Sam gives the last water he has to Frodo. The game model in this frame is Bach or Stravinsky, Sam gives his last water to Frodo so he can survive the journey while Sam seems still could survive without that water even though there is risk where he need the water.	Valid
58 (58/BC/RK)	Scene 2.35.52-2.36.10 Samwise vs Frodo <i>The Lord of the Rings: The Return of the King</i>			✓		Frodo have no more power to climb the mountain, Sam uses all of his power left to carry Frodo because he knew he can't only carry the ring. The game model use in this scene is Bach or Stravinsky. Sam again threw his own ego and choose to carry Frodo into the top of the mountain so they can finish the duty and destroy the ring.	Valid
59 (59/PD/RK)	Scene 2.37.48-2.38.36 Smeagol vs Samwise and Frodo	✓				Smeagol suddenly shows up and attacks Samwise and Frodo to get the ring. The game model of this scene is Prisoner's Dilemma, Smeagol wants the ring for himself even he has to attack the other people who carry it.	Valid

	<i>The Lord of the Rings: The Return of the King</i>						
60 (60/PD/RK)	Scene 2.38.37-2.38.58 Frodo and Samwise vs Smeagol <i>The Lord of the Rings: The Return of the King</i>	✓				Frodo runs to the mountain to destroy the ring alone while Sam fighting with Smeagol. The game model of this scene is Prisoner's Dilemma, Sam fights Smeagol and Frodo runs to the mountain so he could destroy the ring and finish the duty.	Valid
61 (61/PD/RK)	Scene 2.40.10-2.41.33 Frodo vs Samwise <i>The Lord of the Rings: The Return of the King</i>	✓				Frodo reaching the edge of the crater. Sam tell him to throw the ring but Frodo decide to use it for himself because he said it was his ring. The game model use in this data is Prisoner's Dilemma. Frodo betrays Samwise for using the ring for himself instead for saving the world.	Valid
62	Scene	✓				Smeagol try to snatch the ring from Frodo, he bites Frodo's finger until he cut it off. The game model of this data is Prisoner's	Valid

(62/PD/RK)	<p>Smeagol vs Frodo</p> <p><i>The Lord of the Rings: The Return of the King</i></p>					<p>Dilemma. Smeagol wants the ring so bad and do something terrible to get the ring from Frodo.</p>	
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