

CONVERTING CHILDREN'S LITERATURE INTO GAMES:

A CASE STUDY OF FABIO GEDA'S *IN THE SEA THERE ARE CROCODILES*

A project report submitted in fulfilment of the requirement for the

Summer Research Fellowship Programme 2017

Submitted by

NILA RAJEEV

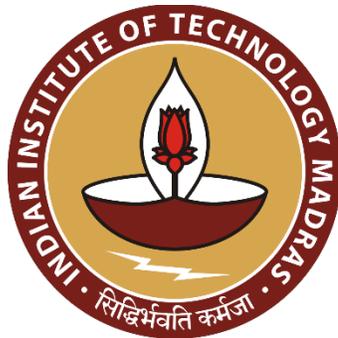
HS17SFP0055

M.A. English and Comparative Literature

Pondicherry Central University

Under the guidance of

Prof. S.P. Dhanavel



DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

JULY 2017

CERTIFICATE

This is to certify that **Nila Rajeev (HS17SFP0055)**, pursuing Master of Arts (M.A.) at Pondicherry Central University, undertook the Summer Fellowship Programme-2017 at the Indian Institute of Technology Madras, Chennai, in the Department of Humanities and Social Sciences, under my guidance. This report titled “**Converting Children’s Literature into Games: A Case Study of Fabio Geda’s *In the Sea There are Crocodiles***” was prepared as a requirement for the completion of the programme.

Prof. S. P. Dhanavel

Professor

Department of Humanities and Social Sciences

Indian Institute of Technology, Madras

Date: 06.07.2017

Chennai - 600036

ACKNOWLEDGEMENT

I would like to extend my sincere gratitude to the Department of Humanities and Social Sciences, Indian Institute of Technology Madras, Chennai, for giving me the opportunity to undertake this project titled “Converting Children’s Literature into Games: A Case Study of Fabio Geda’s *In the Sea There Are Crocodiles*.”

My sincere gratitude is due to Prof. Umakant Dash, Head of the Department, and other faculty members as well as administrative staff of the Department for their complete support and all facilities provided to me.

I would like to thank my guide, Prof. S.P. Dhanavel, for not only assisting me with the much-needed advice and suggestion but also prodding the project into right direction by providing books and other materials. No word of thanks would be enough for expressing the gratitude I feel for him for teaching me what good writing looks like, for pushing me to achieve the standards I never imagined for myself, and helping me complete the project on time.

Nilrajeev

ABSTRACT

Children's Literature treats the child as a separate entity. However, there is not a clear demarcation between Children's Literature and adult's literature. At once it creates a world of fantasy and throws light on real life experiences that children have to face. This has indeed been a happening field right from the ancient times to the modern world.

Fabio Geda's *In the Sea There are Crocodiles* is, in fact, a trauma narrative by a ten year old child Enaiatollah a struggle for survival that a ten year old can bear to the utmost. At a tender age he is left to fend for his escape by his mother, left to his fate by his uncle. His journey extends over a period of five years through different countries. They give children as well as adults awareness about the harsh realities of life and enlighten them to grow up with optimism as well as give them courage to face the trials and tribulations of life. Amidst the chaos in the contemporary world, Children's Literature gives a tinge of hope to persevere and pursue the endless repercussions of life. The objective of this project is to extend the scope and methodology of Children's Literature to more practical purposes through video games. This project suggests some ways to convert books like *In the Sea There are Crocodiles* into a video game so that right from a young age, children can familiarize themselves with the harsh realities of life and also imbibe the potential to face it with vigor and zeal to life and to love life.

Key Words: Children's Literature, trauma narrative, video game, Fabio Geda, *In the Sea There are Crocodiles*.

TABLE OF CONTENTS

Chapter 1	Introduction	1
Chapter 2	Games In	10
Chapter 3	Play Up, Play Up and Play the Game	16
Chapter 4	Suggestions for Converting <i>In the Sea There are Crocodiles</i> into a Video Game	27
Chapter 5	Conclusion	40
	Works Cited	45

CHAPTER 1

INTRODUCTION

The aim of this project is to examine the history of children's Literature in the context of technologically advanced and morally degrading video games and to suggest ways and means of converting Children's Literature, especially trauma narratives with specific reference to the Italian writer, Fabio Geda's *In the Sea There are Crocodiles*. The entire research work is presented in five chapters. While the first chapter provides a brief history of Children's Literature, the second chapter discusses the interrelationship between children's literature and video games. The third chapter explores theories and models of video games, which are applied to *In the Sea There are Crocodiles*, in the fourth chapter which also has suggestions for converting the novel into a video game. The last chapter concludes the project showcasing the advantages of converting Children's Literature into video games, specially stimulating empathetic qualities in children.

The history of Children's literature coincides more or less with that of the novel. What historians of children's literature often called, the first real book in this field, Newbury's *A Little Pretty Pocket Book* (1744) was published within a decade of Richardson's *Pamela* (1740). It has its rudimentary beginnings in folk tales or it can be traced to oral tradition and it traverses through different ages in literature. During the Greek and Roman period children knew about Homer, Virgil and Ovid. But a clear demarcation between Literature for children and adults was hard to come by.

Philip Aries, whose book *Centuries of Childhood* has played a pivotal role in the study of the history of childhood, states that "there was no place for childhood and that in

the medieval society the idea of childhood did not exist” (33). During the Middle Ages Literature was limited to confines of the Church. In the fifteenth and sixteenth century there was a spread of instructional and religious books for children, for example, Sir Thomas Elyot’s *The Boke Named the Governor* (1531) and John Fox’s *Book of Martydom* (1563). In the Seventeenth Century under the religious control of Protestantism there was heavy moralizing through Children’s Literature and the Bible and the books promoting the Puritan ethos was prevalent. *The Aesop Fables* was popular during the time because of its didactic nature published in late seventeenth century, Charles Perrault’s book contained eight fairy tales for children which was translated into English as *Histories or Tales of Past Times* by Robert Samber. Once they were translated into English they were “simplified and shortened [...] and adopted to include morals for children” (McCulloch 33) Even today, they are known as *The Tales of Mother Goose* or *Mother Goose’s Tales*. But the puritan beliefs of the time condemned the fantastical and magic elements and they were afraid that “their fanciful content might encourage children to tell lies and thus be ungodly” (Susina 178). There was *The New England Primers* rich with religious motifs as well as chapbooks for instructing children. Towards the end of seventeenth century and the beginning of eighteenth century there was the emergence of *Robinson Crusoe* by Daniel Defoe in 1719, *Gulliver’s Travells* by Jonathan Swift 1726 and so on.

The romantic view of the child was that “they had to be encouraged, enabled and facilitated” so as to fulfill his or her entire potential as a human being (Jenks 63). In nineteenth century there were two major theorists John Locke and Jean Jacques Rousseau who played a highly influential role in the development of children’s education. John

Locke “likened the child to a *tabular rasa* meaning that children are born without any innate ideas or principles” (Grenby 13). Therefore, Locke maintained that the role of education should be ‘instruction and delight’ and it is an idea which is prevalent even in today’s educational systems. Rousseau, in his book *Emile*, states what was to become the ideal behind the romantic notion of childhood. He argues that “Everything is good as it leaves the hands of the author of things; everything degenerates in the hands of man” (*Emile* 37). In this sense children are seen to be naturally innocent and good, with correct education and care they develop into good people.

The Victorian Period is often considered to be the Golden Age of Children’s Literature. In the nineteenth century there was an outburst of Children’s Literature. *Rip Van Winkle* by Washington Irving, *Grimm’s Fairy Tales* by Jacob and Wilhelm Grim, Charles Dicken’s works like *David Copperfield*, *Oliver Twist* and *Great Expectations* gave a new dimension to Children’s Literature. Some of them were under *bildungsroman* tradition that is the novel progressed along with the protagonist’s growth and it was also called coming of age novel. Both children and adults could easily relate with it. In the twentieth century there were *The Wonderful Wizard of Oz*, *The Call of the Wild*, *A Little Princess*, *The Story of Doctor Doolittle*, *Winnie the Pooh* and so on, Children’s Literature by genre can be divided into picture books or concept books, traditional literature, fiction which includes fantasy and realistic fiction and historical fiction, non-fiction, biographies and autobiographies, poetry and verse.

The years prior to World War I witnessed an emergence of several books and authors of Children’s Literature. It resulted in the production of the ‘modern children’s

book' with its rich embossed covers of adventure books, the evocative line drawings that adorned the texts, the etchings and the photographs that brought far off places and events.

Twentieth century witnessed the upsurge of children's books from different nations. Picture books and pop books were introduced to infants and toddlers while the 1960s saw the emergence of teenage and adult fiction, as well as adolescent literature and series books also emerged at this point of time. Multiplicity of themes was an evident characteristic in twentieth century Children's Literature, for example, in J.R.R Tolkien's *The Lord of the Rings* and *The Hobbit*. In his work *From Aesop Fable to Harry Potter* Seth Lerer says "the act of learning how to grow is, in the end, the act of learning how to tell . . . in the process of telling, we become ourselves" (126–27). The protagonists of these books, largely children and teenagers, are brought to face with all sorts of situations and circumstances, either in a realistic or fantasy world.

"Literature was rich with childlike images, full of wounds, mystery and excitement" (Hunt 5). Peter Hunt's statement testifies to the steady growth of Children's Literature. Children's Literature, transformed throughout these years, opened to the reader's new vistas of child psyche. Today Children's Literature witnesses a new golden age of fiction. There is a blurring of the boundary between children's literature and adults texts. Twenty-first century witnessed the spell of *Harry Potter* books by J.K Rowling. It was a path-breaking genre in Children's Literature. The world of fantasy reached its zenith through these series. It was indeed a coming of age story. It traces the protagonist's growth into an adult and the way he overcomes the obstacles in his life. It further depicts his chivalry, virtues, his love and friendship for his fellow human beings, revealing to the readers the sacrificing nature of a child and his spree to fight evil. These

books created an awe among the audience. Through reading these books and by watching the movies based on them children were motivated to a great extent.

Herbert De Lay observes that “contemporary children’s literature maintains to be a highly innovative and challenging field” (39). *In the Sea There Are Crocodiles* is the life story of Eniatollah Akbari written by Fabio Geda, an Italian writer. Eniatollah is a ten year old boy who is inevitably sent away by his mother in the custody of his uncle and is abandoned there to find his own escape. He escapes from his country Afghanistan because of Taliban. In the novel his mother had advised him not to steal, not to cheat and not to take drugs or weapons. His story is highly motivating. He crosses through the countries like Turkey, Pakistan, Greece, and Iran and finally seeks political asylum in Italy. By the time he reaches Italy he is fifteen years old. Enaiat endures the crippling physical and emotional agony of dangerous borders through crawling, trekking across cold mountain pathways to reach a shore of safety or being choked without breath into a false bottom of the truck and with sheer luck he escapes in an old dinghy. But not everyone is as resourceful or lucky as Enaiat. There are many heart-wrenching casualties on the way. The trauma he undergoes and survives will not pass into oblivion because its effects reverberate not only in the psyche of those who experience such horrifying experiences but also testify the ruthlessness and callousness of contemporary social and cultural spheres. Children as survivors of trauma seem to offer adults spiritual advice on how to triumph over pain through honest, simple and essential values like love, trust, hope and perseverance.

Video games can be constructed based on such books which incorporate the struggle of children and their survival tactics instead of awful maniacal games which

provide negative impact on the child. Children's Literature and video games have inextricable connection. The history of video game suggests that the first computer game was *Space War* in 1962. In this game, two players guide the spaceship and fire torpedoes at each other. It was the first widely distributed example of major type of computer game, the action or arcade game. Nolan Bushnell developed *Atari* in 1972 and released *Pong*, which was the first commercially released arcade game in the classic period of computer games before the market crashed in the mid-nineteen eighties and was also one of the companies along with Magnavox which created the market for television game consoles. Games like *Adventures* often place the player in a fantasy world where he or she has to pursue a quest. *Zork*, which came out in 1981 for the Apple 2, was the first commercially successful implementation of a game of this type.

The line between adventure and arcade games has so far been blurred with the advent of multimedia and networking. These have given rise to Multi-User Dungeons or Domains where many players can interact and explore the fantasy world over the internet. Games like *Myst* and *Riven* are evolving out of the adventure games in which the world is presented graphically and one can navigate by clicking rather than typing commands. The importance of gaming for education might best be summarized by the rhetorical question an elementary school student raised at the Game Developer's Conference: "Why read about ancient Rome when I can build it?" (Ostenson 75). Especially, if the experiences are of children and from children the interest and urge to read will be naturally enhanced. They are more likely to imitate the actions of the characters that they identify with while these games by their very nature demand active participation rather than passive maniacal killings which are more popular among children.

Besides this, when children relate to characters like Eniatollah, they try to decipher the solutions to pursue a safe life and would understand the inner turmoil of the character and can learn about the historical, social, political and cultural backgrounds of the different characters and their related contexts. Through such games we can ensure fair level of awareness, empathy and competency among children to face life. For example, if we convert the book *In the Sea There Are Crocodiles* into a video game the character Eniatollah who uses his practical wisdom and as well as his rationality, it can show the qualities of love, friendship and care towards other children who accompany him in his journey through different countries that he passes through. And we get an idea about the social and political conditions of Afghanistan under Taliban and get to understand the plight of ethnic minorities. We also come to know more about the mental conditions of the refugees who are treated as illegals in countries like Iran, Turkey, and Greece. Children will understand how far sustenance is important amidst all turmoils and how failures, rejections and deprivation also are part of human lives which is what is precisely lacking among children today. They will learn to take disappointments and failures in their stride. Since video games work on the principles of repetition and reward system, they further enhance the process of learning, thereby creating excellent teaching methods.

In this contemporary world children are caught within the web and media rather than getting involved in reading a book. Gone are those days when a child will sit alone and journey through the wonders available within books. “Many of today's youth spend more time playing in digital worlds than they do watching television, reading, or watching films.” (Rockwell 349) Therefore, such real life stories can be designed into video games so that the child will travel along with the characters and experience all the

mental, physical and emotional changes that the character experiences and he can enact it.

Games should be created in such a way as to leave a didactic impression about the values of life and should urge children to behave in a more cooperative and helpful manner. This in turn would also provide adults with the solace of knowing that their children are safe even while gaming. Such gaming would also cultivate an optimistic attitude in them to survive even through hard times with courage drawn from such encounters with destiny through video games. Games of cold blooded murder and killing could be fairly subdued and Indianised which would serve as a subversive tool to replace the western wave of murder games. This would also replace the morbid game atmosphere with a much more positive aura that would let sparkle in children zeal to live life more positively.

CHAPTER 2

GAMES IN

Literature is a combinatorial game that pursues the possibilities implicit in its own material, independent of the personality of the poet, but it is a game that at a certain point is invested with an unexpected meaning, a meaning that is not patent on the linguistic plane on which we were working but has slipped in from another level, activating something that on that second level is of great concern to the author or his society. (Aarseth 3)

Children's Literature and Video games are inextricably linked, for they can be seen as potential objects which can bring change. In fact, video games, being a designed experience, provide the child with a culture of simulation, interaction as well as a plethora of experience about the world. But there are certain games which focus only on their turnovers or propagate violence among the children, or push them into the world of fantasy. Sometimes these games are an immediate success because they work on the principles of fantasy and explore through the ludic and extra-ludic world whereas games like "Disney's Toontown allows kids from around the world to interact in a real-time 3D world where they meet and chat with other kids, engage in collaborative quests and outfit their own furnishings". (Murray 5)

According to Mark Wolf "Video game is now considered as everything from the Ergodic(work) to the ludic play; as narrative, simulation, performance, remediation and

art; a potential tool for education or an object of study for behavioral psychology; as a playground for social interaction; and of course as a toy and a medium of entertainment.”

(34) The reception of games has to be examined, how they are played, received, understood and interpreted by the players have to be taken into consideration. For example, there are several western maniacal violent games like Ever Quest, Dead Space, and Mortal Komb, etc. where there are extreme mediated graphics of real hypertext violence. In these games violence is rewarded and considered as an acceptable behaviour. According to Anderson and Bushman,

The violent video games influence aggression through short term and long-term effects. In the short-term, violent video games function as a situation variable that can increase aggressive cognition, affect, and arousal, in turn leading to increased aggressive behaviour. In the long term, violent video games can influence aggressive behaviour by promoting aggressive beliefs and attitudes, and creating aggressive schema, aggressive behavioural scripts and aggressive expectations; which, in turn, may bias an individual's personality toward aggression.

(58)

To elucidate this, take the case of a game like Ever Quest, which creates an affinity towards violence. The players are indulged in a virtual reality to such an extent that they completely stay aloof from their real world. Studies found that “Students who had played a violent virtual reality game had a higher heart rate, reported more dizziness and nausea and exhibited more aggressive thoughts in a post-test than those who had played a non-violent game.” (Castell and Drummond 223) People get addicted to the

rewards that are offered to them in the form of skills, magic, etc., as well as the respect and affiliation they receive through games. They act as an alternate reality where they can remake through themselves. Many people find their online characters more impressive than their real life characters. One of the players commented that it was easier to succeed in such games where they would get payoff for violence. He added “I can be beautiful, fit and healthy in games whereas in real life, I am chronically ill and there isn’t much fun or achievement to be had (Nicholas Yee 7). The real problem is that people like to live in a perfect fantasy rather than a flawed reality.

Children should not be imprisoned in the ivory tower of fantasy because they have to encounter the real world. Earlier there was a clear demarcation between Children’s Literature and adult’s Literature. It was believed that children had aesthetic satisfaction, but it was different from that of the adults. Cornelia Meigs, while introducing a critical history of Children’s Literature says:

Just as children, in spite of having long been treated as no more than smaller and more helpless editions of their elders, have always been something apart in vigour of personality, of vision, and enterprise of mind, so has the reading of their choice, even though unrecognized as something separate, had its own characteristics, its own individuality, and its own greatness. (4)

With the advent of Harry Potter books the line that divided children’s and adult’s literature got blurred. Harry Potter series, ever since its first publication, enchanted children all over the world. By 2000, the book series had been published in 115 countries and in 28 languages with more than 18.4 million books in circulation in the United States

alone. Potter fans relieve their mania through other popular forms of media entertainment. Warner Bros bought the film and world-wide merchandising rights for the initial four Potter Books from its author J.K Rowling in 1999. With this hype it entered into the video gaming industry as well. Harry Potter license was extremely valuable for the industry. In November 13, 2001 Electronic Arts (EA) announced that it had shipped four video games to retail store based on *Harry Potter and the Sorcerer's Stone* published for the Play Station, Game Boy Colour and Game Boy Advance. These games were the first to be developed in this regard and the games went to sale on 16 November, 2001 coinciding with the release of the film. On 3 July 2003 EA announced that it was going to re-release the first game on the series on next generation consoles with enhanced graphics and updated gameplay. *Harry Potter Quidditch World Cup* was released by EA on 28 October, 2003. There was a genre change from adventure game to sports game, but fantasy was the key element in all these. In the third part *Harry Potter and the Prisoner of Azkaban*, players were given the option of playing either as Harry, Ron or Hermonie. In this genre there is little room for variation in order to meet the fans' expectation.

In this post-modern era, video games should focus on a tinge of realism. According to E.M Forster, "Fantasy can be seen as the antithesis of realism, it seemed to follow, to those who espoused the realist cause, that fantasy was also the opposite of serious that means trivial or frivolous. (43) In the contemporary scenario a skeptical position has to be taken with regard to fantasy. As children grow towards maturity they should be provided with books and video games, depicting reality to the child who should be provided with informative and factual material about the real world.

This research intends to create a new genre in video game where a trauma narrative *In the Sea There Are Crocodiles*, the real life story of Enaiatollah Akbari, a ten year old boy, will be converted into a video game in which children will be accustomed to value sustenance. The trauma when converted to an adventure game will teach the child to love life, it will shake him from the world of fantasy to stark realities. In the novel Enaiat narrates his story to the author Fabio Geda. The process of narration itself is a recovery from trauma. A traumatic event is one in which a person feels utterly helpless in the face of a force that is perceived to be life threatening. Enaiat had to endure several agonies; he had to face the crippling physical and emotional agony of dangerous borders such as crawling, trekking across the mountain paths to reach a shore of safety or being choked without breath into a false bottom of the truck and with sheer luck of escape in an old dinghy. But not everyone is as resourceful or lucky as Enaiat. Reconstruction of self takes place in the survivors of trauma narratives by narrating their self. Narrating their memories to others empowers the survivors to gain more control over the traces left by trauma. In *Trauma Narratives and the Remaking of the Self* Susan J. Brison argues that “Narrative memory is not passively endured rather it is an act on the part of the narrator, a speech act that diffuses traumatic memory, giving shape and temporal order over the events recalled, establishing more control over their recalling and helping the survivors to remake their self.” (12)

John Locke famously identifies the self with a set of continuous memories, a kind of on-going narrative of one’s past that is extended with each new experience. Trauma undoes the self by breaking the on-going narrative, severing the connection among remembered past, lived present and anticipated future. “In telling a first person trauma

narrative to a suitable listener, the survivor is at the same time and once again a second person dependent on the listener in order to return to personhood". (White 19) It can depend upon how they are initially experienced but also how they are perceived by others, directly or indirectly and the extent to which others are able to listen empathetically towards the survivor's testimony. Indeed traumatic memory can be viewed as a kind of somatic memory, as Roberta Culbertson in her *Trauma Narratives* notes, "full of fleeting images, the percussion of blows, sounds and movements of the body-disconnected, cacophonous the cells suffused with the active power of adrenalin or coated with the anesthizing numbness of nor adrenalin."(49) Enaiyat in the novel, tells about similar traumatic conditions:

I stuck my head under the tap and there I was with my head bent over the wash basin and the blood flowing and-I don't know how to explain it, but I felt as if it wasn't the only blood that was flowing out of me, it was everything I'd been through, the sand of the desert, the dust of the streets and the snow of the mountains, the salt of the sea and the lime of Isfahan, the stones of Qom and the sewage from the gutters of Quetta. By the time the blood stopped flowing, I felt great. (Geda 168)

Piecing together a self requires working through or remastering of, the traumatic memory to reconstruct one's self. By narrating the past accounts of his life to the Italian writer Fabio Geda, Enaiyat knowingly or unknowingly reconstructs his self. The way he claims to the authorities to grant political asylum is crucial. He tells them about his insecurities, about his life in the hometown, his nightmares, his journeys etc. He shares what happens in his nightmares:

I was constantly running away from something and in running, I often fell out of the bed, or else I would get up, tear off the blanket, wrap it around my shoulders, go downstairs, open the door of the yard and go and sleep in the car, all without realising it, or else I would neatly fold my clothes on one side, and lie down in the bathroom in a corner. I told them I always sought the corners to sleep in. I was a sleep walker. (Geda 207)

Trauma, however, unravels whatever meaning we have found and woven ourselves into and so listening to a survivor's story to made the listener's believe after listening to many Holocaust testimonies and working as an analyst with the survivors and their children, such survivors of trauma "did not only need to survive in order to tell their story; they also needed to tell their story in order to survive." (McAdams 73)

Trauma narratives are significant in Children's Literature because they motivate children as well as adults to survive the harsh realities of life. So when these trauma narratives are converted into a video game, the child will understand the necessity of preserving life in life-threatening situations and he will find a way to survive in hostile environments. He will try to establish domains of safety in unsafe places, holding onto possibilities for life in extenuating circumstances. It helps the player to cultivate responses to others in situations that are degrading, finding connection and a sense of affiliation with others in the settings that are isolating and achieving degrees of acceptance for the self in debilitating conditions.

In the novel Enaiatollah undergoes all these stages, he survives in severe conditions, the countries that he crosses through offer him different experiences, the cultural, socio-political milieu is different, he saves his friends, travels amidst the

drawling guns of Taliban, traverses across the fiery mountains under terrible conditions, crosses the ocean in a dinghy with a torn life jacket. He traverses through countries like Afghanistan, Pakistan, Greece, Turkey and Iran; he finally settles in Italy where he finds his 'home' as an adopted child in the family of a social worker Danila. Before settling in Italy he has to escape from all these countries in search of a political asylum as he does not have a home. 'Home' is just a mental construct for him. Surviving without food, water, etc, and passing his five years in search of a home without losing faith are all instances of trauma. Enaiat says that "when you don't have a family your friends mean everything for you" (Geda 85)

When this trauma narrative is converted into a video game, the player can enact the situations that Enaiat goes through. The player through this game avatar will imbibe the lessons of life and will grasp Enaiatollah's courage as well as develop, fair level of consciousness, responsiveness and aptitude to face life and the parents can consider the child to be safe from the violent maniacal games. Julian Kuklitch argues that "Games represent a new lively art, one as appropriate for the digital age. They open up new aesthetic experiences and transform the computer screen into a realm of experimentation and innovation that is broadly accessible." (15)

CHAPTER 3

PLAY UP, PLAY UP, AND PLAY THE GAME

“Games and reality are undeniably distinct, and yet to play a digital game is to experience a fascinating and potential world that can be seen as a transformed surrogate of reality.” (Kurt 7).

In the processes of adapting *In the Sea There are Crocodiles* to a role playing game of adventure; it will be aided with the help of Game Theory. Through this game the child will imbibe the lesson to overcome the effects of trauma and to see the world in a buoyant radiance. Steven J. Brams states in *Game Theory and Literature*: “Game theory has the potential to illuminate and render coherent strategic features of a narrative, but not without delving into its textual details ... It may also be used to explore new relationships, such as games played between an author and a reader that incorporate prior expectations of each player.” (58)

Game Theory was developed in the 1950s by John von Neumann and Oskar Morgenstern. According to Brown and Leyton “A game is a formal description of a strategic situation, and Game Theory is the formal study of decision making where some players must make choices that eventually affect the interests of the other players.” It is a distinct and interdisciplinary approach to the study of human behaviour. What economists call ‘Game Theory,’ psychologists label it as the theory of social situations. There are two main branches of Game Theory - Cooperative Game Theory and Non-cooperative Game Theory. A player develops plans of action with the goal of obtaining gains and

advantages, but considering primordially what the opponent may do, non-cooperative game theory is concerned with the analysis of strategic choices. The paradigm of non-cooperative game theory is that the details of the ordering and timing of players' choices are crucial to determining the outcome of a game. For that reason, game theory should not be concerned with the evaluations of optimal strategies in abstract; it indicates what strategy or plan of action should a player pursue always bearing in mind the potential actions of the adversary or the opponent. "In a loose manner, recreational games of dispute fall easily into that set of games that economic game theory tries to explain, but more important than that is game theory's concentration on interaction through dynamic rationality". (Ross 67). The player chooses his strategy in relation with the other players strategy. "Game theory, in its application to literature, is considered fruitful in divulging certain mysteries or even helping authors gratify their own ends, that is, to puzzle the reader". (Morgenstern and Neumann 48) There are many literary works to which Game Theory has been applied such as Sir Arthur Conan Doyle's *Sherlock Holmes* , Shakespeare's *The Merchant of Venice* , Harold Pinter's *The Caretaker* and a medieval poem, *Sir Gawain and the Green Knight* written by an anonymous author.

Sampat Mukherjee has pointed out in his book *Analytical Microeconomics Exchange Production and Welfare: From Alfred Marshall to John Nash* that "A game is described in terms of the players, the rules of the game, the payoffs of the game, and the information that players have about the details of the game. These common elements are found in any situation involving conflict." (686) Gaming involves strategic decision making, i.e., decision making under conflict. A game is any situation in which players (the participants) make strategic decisions that take into account each other's actions and

responses. Strategic decisions result in payoffs to the players in terms of rewards or benefits.

Steven J. Brams speaks of the relationship between literature and game theory in his article “Game Theory and Literature”:

Game theory and literature have their own coordination problem, with game theorists and literary analysts not often benefitting from each other’s insights. What makes a literary creation is not just its overall structure but its details, including the emotional lives of its characters. Game theorists need to ponder these and adopt their theory accordingly, just as literary scholars need to appreciate that game theory has its own richness that goes beyond mathematical symbols and abstract forms. (31)

There has been little application of mathematical game theory and related concepts to specific texts. This area is a neglected field. The theoretical apparatus to clarify the gaming experience is found in game theory, because game theory is fully committed to explaining the processes of interactive decision-making. “Communication principles and game theory when applied to game design and player response illustrate not only the function of strategic gameplay, but also how interactive decision-making is the vital component of immersion”. (Neiva and Romano 19)

An application of game theory to the life narrative of Enaiyatollah Akbari can illustrate different games. The game rule will be set in such a way that Enaiyat’s mother abstain him from drinking, using weapons and cheating. If the player does this at any point of the game, he will be eliminated from the game. The theory of rationality can be

applied to Enaiat's actions in the game. The theory of rational choice states that "in any given situation the decision maker chooses the preference of the available subject that is best according to his preference" (Browne and Layton 8). It further explains that the action chosen by the decision maker is at least as good, according to his preference as every other available action. In his mission towards Greece, the dinghy they travel is about to sink and water is entering through a hole. Enaiat's rational decision saves them. He tears a bottle into half and throws water which enters inside the dinghy using that. The rule can be set in such a way that he will receive payoff only if he throws water out of the dinghy whenever it enters.

One of the most well-known strategic games is the Prisoner's Dilemma. "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 45) The game can be designed in such a way that both Enaiat and another boy who reached Italy as illegals seek for political asylum. So the rule of the game is set in such a way that if Enaiat and the other boy tell the truth, they will be granted political asylum. Secondly, if both do not tell the authorities, truth both of them will be thrown out of the country. Thirdly, if one tells the truth he will be freed and the other will be branded as illegal and thrown out of the country. Therefore, Enaiat's profile will be:

Tell the Truth (T), Not Tell the Truth (NT), the outcome or payoff will be that Enaiat tells the truth and the other boy remains quiet, so Enaiat is granted political asylum. NT and NT means both of them are thrown out of the country as they are illegals. T and T means both of them get political asylum whereas NT and T indicate that

the boy will get political asylum and Enaiat will be branded as illegal. And the other boy's profile will be like the same probabilities like that of Enaiat's T and NT, T and T, NT and NT, NT and T. The payoff function that represents their preference ordering will be u_1 for which

$$u_1(T,NT) > u_1(NT,NT) > u_1(T,T) > u_1(NT,T)$$

Boy and Enaiat's payoff

		BOY	
		Not Tell	Tell
Enaiat	Not Tell	2,2	0,3
	Tell	3,0	1,1

Prisoner's Dilemma

The figure represents the payoffs. Different values can be attributed to different payoff functions depending upon the number of recurring strategies. A simple specification is $u_1(T,NT) = 3$, $u_1(NT,NT) = 2$, $u_1(T,T) = 1$, and $u_1(NT,T) = 0$. For suspect 2 we can similarly choose the function u_2 for which $u_2(NT,T) = 3$, $u_2(NT,NT) = 2$, $u_2(T,T) = 1$, and $u_2(T,NT) = 0$. Using these representations, the game is illustrated in this figure. The two rows correspond to the two possible actions of player 1 Enaiat, the two columns correspond to the two possible actions of player boy 2, and the numbers in each box are the players' payoffs to the action profile to which the box corresponds, with player 1's payoff listed first. The Prisoner's Dilemma models a situation in which there are gains from cooperation (each player prefers that both players choose to tell rather than they

choose not to tell) but each player has an incentive to “free ride” if they choose to tell the authorities, whatever the other player does.

The Battle of Sexes is another case of game theory. What happens in this game is that two people agree that it is better to cooperate rather than not to cooperate but disagree about the best outcome. In Enaiat’s case in their voyage to Italy, the game can be designed in terms of the Battle of Sexes. There are totally four people in the boat; the oars are with Enaiat and his friend Soltan. They set out to Greece. As the sea becomes ferocious, Soltan becomes afraid. He wants to row back in the direction of Turkey but Enaiat wants to go towards Greece, their destination. We can model this situation as the two player strategy game in which the person who wants to go towards Greece’s payoff is represented by a row and the person who prefers Turkey chooses a column.

		Soltan	
		Greece	Turkey
Enaiat	Greece	2,1	0,0
	Turkey	0,0	1,2

The Battle of Sexes

The Battle of Sexes models the choice that they face. In Enaiat’s case, we can design a selling game where Enaiat and his friend have to sell goods in the market. They can charge any of the three prices: high, medium or low. The rule will be set in such a way that among them who charges a lower price and sell the good will receive an extra life in the game. There will be no profit for Enaiat if his price is greater than his friend’s

price. These are the few instances in which game theory can be applied. This helps us to find out the various strategies involved by the player.

Taking into account the fact that many players engage in role-playing with a community of immaterial individuals living a virtual life quite the opposite of their daily routine, Taylor Laurie argues that game playing is an “identity workshop, suggesting that the use of computers is a healing tool to repair uncomfortable, fractured, or damaged selves.” (362) In video games the player can manage his or her strategic choices of decision making. In a novel or short story what happens is that a person might be interested only in the character and his or her choices, but in a video game the player can make his own choices through the game avatar or in a role playing game, he will have his own choice and he will bear the outcome of his decisions.

Game design should be based on the fact that it should determine what choices the player will be able to make in the game world and what results or outcomes those choices will have on the rest of the game. “If the player is frequently following semiotic and narrative cues, being involved as well as attempting to unravel a tale, it is tempting to presume that literary theories concerned with the issues of narrative could be the key to the experience of game playing”. (White 30) But ludologists claim that game should also include the study of game play because there can be no single mode of narrativity in entertainment, given the diversity of design solutions. A game can contain two types of spaces, the ludic and the extra-ludic which include the arena of game play and the surrounding non-playable space. According to Espen J Aarseth in his *Cybertext: Perspectives on Ergodic Literature*, there should be “the ludo-narrative design space as having four independent, ontic dimensions: the world, objects, agents and events.” (7)

While *In the Sea There are Crocodiles* is converted into a video game, the string of Pearl Model of narrative has to be used because this model is a natural fit for video games, with the levels forming the pearl, rich in possibilities of interaction with the game world, while the cut scenes placed between levels form the string, providing space for narrative sequences. In “Theorising the Video game narratives” Majewski says,

This model can be visualised as the beginning part of a pearl; the player then moves on to the wider section in the middle of the pearl. Within this section, the player has the freedom to trigger many different events in any order, thus resulting in a degree of non-linearity. However, as the player continues to proceed through the pearl, it begins to get narrower, as does the player’s range of options, until there finally is only one way for the player to proceed, or (more frequently) a non-interactive cut scene – the string connecting this pearl to the next. (37)

Another advantage of this model is that the game designer will have abundant control over the game, so that emotions as well as the trauma that a child of their age has to suffer can easily be conveyed to the player. Since the game will be spread over countries like Afghanistan, Greece, Iran, Italy and Turkey that Enaiat travels through, the string of pearl model offers different techniques to trigger events for the player. It will be designed as a role playing game where the child can take the role of Enaiat and face the obstacles ahead. The primary role of this game is survival in which the player has to use his strategies as well as logical choices to decide which qualities he has to increase, level of sacrifice, competency as well as the capability to experience the game emotionally and rationally.

The choice of the set of game laws must be made in complete agreement with the experience presented to the player. “Rules indicate the availability of competitive factors, under the form of non-player characters, and by that it is meant incidents such as hindrances, obstacles, weapons, vehicles, as well as goals and rewards. Rules are actively constitutive of games, and for that reason, they must be put in place prior to the interaction of players”. (Neiva and Romano 21)) Rules are present all through games and they confer unity and identity to a game. A rearrangement of rules indicates a new game, or in video games – a new mode of gameplay. Rules are not supposed to be questioned, or disputed, or changed as the gaming progresses. They must be followed even in the paradoxical situation when the rule is freedom from rules. And rules should be known to all the players from the beginning. Game rules are conceived as an exercise for the benefit of the player alone who wants to evolve past the initial learning curve, and start the game with improved strategic means. This is an example of a situation in which the player faces his/her own inadequacies with the goal of achieving better performance. As always, in any game, whether digital or not, and in rituals, performance harvests prestige and reputation for an individual. Through the set of rules that compose each mode of playing, the player or the end-user is steered into scenarios of action, objectives, and rewards. Game rules are highly significant and they should be integrated into the game play with a coherence. For example, in the new game of *In the Sea There are Crocodiles*, the game rule will be set in such a way that Enaiat’s mother forbids him from three things, that is, not to take drugs, not to use weapons and not to cheat. If the player indulges in any of these three things, he will lose his game life, or he will be dead in the game.

The game will be designed as a role playing game, which comes under the genre of adventure games or it can be formulated as an amalgamation of adventure and strategy games. Espen Aarseth regards “the adventure game as an artistic genre of its own, a unique aesthetic field of possibilities which must be judged on its own terms.”(12). Through this game the child should learn how to survive trauma with a vigour and an optimistic attitude. While the reader of literature may be told of a possible world, the player of video games is acting in a world of possibilities unfolding with a force akin to direct experiences. The players are exposed to digital simulations that may, in some game designs, correspond to real events, thus allowing the assessment of risks without paying the price of living out such scenarios in reality. However, the player’s initial expectations of winning are not relevant when measuring the impact of immersion and interaction in video games because the player always gains. When the player uses a vehicle to achieve something desirable, for example, experience is added to the existing player. In a general way, the player acquires information about him/herself, either negative, in the case of failure, or positive, in the case of success. The basic condition of a game play is “To ensure that the player remains immersed in the experience, the game designer must keep as much of the needed exposition as possible within the interactive game world,” says Baggaley. (280)

The game transforms the player that plays it. However, the suggestion that the player gains is consistently embedded in the design structure of a great number of video games, either in the form of overcoming hurdles or living out a scenario. Yet the player cannot gain a victory in the strict sense of the word because he/she is not facing an adversary. Superficially, the player appears to have accumulated points, but that cannot

be the dominant point of playing. What is attractive to the end-user is the opportunity of adding skills and capacities to a previous and evolving gamut or inventory of abilities. For that reason, game playing offers players the chance of becoming better and better in the game that they chose to perform.

Again, the game cannot be about the actions and the events around the in-characters and the scenarios that structure gaming experiences. As the gameplay progresses, and as the player moves to higher and higher levels of achievement, the outcome should point to an improvement of the end-users' initial mental, emotional, and physical responses, generating the gratifying sense of having done what was not possible before. This project aims to give a path-breaking genre in video gaming industry with all those above mentioned theories and models in mind. Suggestions for converting *In the Sea There are Crocodiles* into a video game are presented in the next chapter.

CHAPTER 4

SUGGESTIONS FOR CONVERTING

IN THE SEA THERE ARE CROCODILES INTO A VIDEO GAME

This chapter attempts to give a suggested script for producing a videogame based on Geda's *In the Sea There are Crocodiles*. A map will be shown in the beginning, depicting the places that Enaiat has to travel. This is spread across five countries which include Afghanistan, Iran, Turkey, Greece and Italy. A summary board will be present to show an overall progress of the player's journey. And adventure boards will show the episodes in sequential order. Boards could reflect the flavour of particular episodes through thematic events and play could take place on activity tracks representing movement, hiding or friendship. Each scenario board will have a primary track to provide the main route through the scenario and measure player's overall progress. Every escape story in Enaiat's life will be converted to a game. In this game, the level he completes will be marked by the flags of the respective countries or they represent the victory points. Valuable life tokens, allies and resources would appear as minor tracks. The goal of successful game design is the creation of a meaningful play. Meaningful play occurs when the relationship between actions and outcomes in a game are both discernable and integrated into larger context of the game. Creating meaningful play is the goal of successful game design.

The game narrative begins:

The player can see the game avatar of Enaiat on the screen. The sound track can be heard. Enaiat narrates his story.

Eniatollah: I am not sure when I was born. My mother says I am ten years old but there is no registry office in my province Ghazini in Afghanistan.

Enaiatollah: When you are ten years old and your mother before putting you to bed, takes your head and holds it against her breast and tells you about three things, DON'T TAKE DRUGS, DON'T USE WEAPONS AND DON'T CHEAT, you don't realize these are the lessons of life. (We can hear the mother's voice track in the background) We can see the stars blinking their eyes and the moon smiling. (Cut to)

Rule of the game will be set in such a way that if the player indulges in any of these things in the course of his journey, he will be eliminated from the game.

The graphics will show Talibs walking with their gun; the mother will hide Enaiatollah (Enaiat) in her burqua and leave him at the samavat or hotel at a place called Qgazi. The directions to Quagzi will be shown on the screen. We can see the mother leaving him there. But the player can hear the voice track of Enaiat,

Enaiat: It is not an abandoning but I am left to fend up for myself. My mother risked her life to save me from the Talibs who killed my father. (Cut to)

Enaiatollah opens his eyes. He does not find his mother there. He finds Kaka Rahim (A bearded old man who is the owner of the hotel).

Enaiat: Where did my mother go, Kaka Rahim? When will she come back?

Kaka Rahim: She is not coming back. (Cut to)

Mission 1: Escape from Taliban

Enaiatollah has to escape from the clutches of Taliban. It is a role playing game. He has to save himself from them. They are roaming everywhere with guns in their hands. The graphics will show the broken bridges, burned-out cars, and the blackened tanks abandoned by them in the background. The player will have to use the strategy of hiding in a ditch to escape from Taliban and he has to dig a hole in the potato field and hide there. Instructions will be given for the end user, about the game. If he gets caught, he will not complete the level. As the atmosphere is scary, he has to save himself from the enemies. Once he completes the mission he will be rewarded with an extended game life. His survival bar will be shown above. And the flag of Pakistan will be seen, it is the first victory point. (Cut to)

A voice track is heard. It is Enaiat's. He says about his teacher

Enaiat: Thinking that you have the power to think is already a big step. We should have the strength to pick ourselves up, and if you hold any wish up high, just in front of your forehead, then life will always be worth living. (Cut to)

In this scene where Enaiat is speaking with Kaka Rahim.

Mission 2: In Pakistan

Enaiat (Enaiatollah) is appointed as a servant in Kaka Rahim's hotel. In order to survive he needs a job. At the age of ten, he starts taking chai to shops. This activity happens through a minor track in which Enaiat will get his payoff through additional points. This is one of the games he has to complete in order to increase his score to complete the level. The game rule will be set in such a way that if he drops the glass or

the terracotta sugar bowl or forgets the tray or fails in collecting money, he will fail in gaining additional points and thereby lose the chance to increase his game life. If any of the rules are broken, his survival bar will decrease. After completing this minor task, he will get appointed as a salesman by a man called Osta sahib.

The game in this level is to sell the merchandise and collect money to travel into Iran. There will be Enaiat and other players. They can charge any of the three prices: these can be high, medium or low. The game rule will be set in such a way that no profit will be given to Enaiat if his price is greater than his friend's price. They have to share the market equally, that is, both should charge the same price. The merchandise will be provided to Enaiat by Osta Sahib, who appoints him.

Osta Sahib: I will give you money. I will give you merchandise. You sell it and then we share the profit. If you make twenty rupees, I take fifteen and you take five. You have to find the best places for selling and the most important thing is DON'T LET ANYONE STEAL YOUR THINGS.

Enaiat: Yes, Sahib. I won't let anyone steal my things.

Enaiat walks holding the cardboard box tightly in his hands because he cannot let his things to be stolen.

Graphics should be provided in such a way that the player would get a virtual reality of walking through the streets among the crowd holding the goods in his hand.

The player has to use various strategies to sell the goods. The goods involve a pair of socks, chewing gums, sweets and stuff like that. He has to collect a maximum of one thousand and five hundred Pakistani rupees. And the player has to use strategies to

defend himself. The game will be designed for three days, each day he has to collect five hundred rupees. Further, additional points will be given in the form of food items. The extra life will be in the form of food and water. It will be designed in such a way that Enaiat, along with his friends has to pool their money for food and they have to share fruits and vegetables among themselves and a minor track will follow in such a way that if anyone among the friends does not have enough money to buy food, if Enaiat gives them his share, his game life will increase (his survival bar will shoot up). On day one he will lose his way and has to escape from a group of bandits. His escape will be converted into a game. Using graphics and sound track, we can create an atmosphere of a group of bandits who follow him and chase him through the roads. They will try to steal his goods. But the player has to use escape strategies to save Enaiat from the clutches of bandits.

On day two, he will have to compete with the other player to sell the goods for low price. On day three, a group of boys will come to attack him. The gang leader will steal Enaiat's packet of chewing gums.

He has to negotiate and win it back. The game rule will be not to hurt the other person, not to quarrel or steal from him. Finally, the strategy will be he has to follow the barter system. In order to replace his chewing gum, he has to pick out a thing of equal value from his opponent's goods. Using his decision making power he has to select the appropriate good of equal value. Once he finds this, the level will be completed, he will have enough money to go to Iran and he will receive an ally, his friend Sang Safid.

Escape to Iran

Enaiat and Sufi have to escape into Iran. They are moving in a pick-up truck where seventeen of them are crammed up. This escape can be converted to a game. A long bearded man is trying to throw Enaiat out of the truck with his knee. Finally with the help of a fellow passenger he regains his position. The truck climbing along the mountain roads, with ravines below, and shows that Enaiat is already in the danger of falling down. So the player has to ensure the safety of Enaiat and his fellow passengers. He can climb up, save the other person and can restore his position. Once the flag of Iran is seen, the level is completed and he gains additional points.

MISSION 3: IN IRAN

Through the beautiful valleys amidst the flock of sheep, Enaiat and his friend travel by a bus. They reach a village called Kerman in Iran. They go to two different villages. They say goodbye to each other. Enaiat enters a building site where they are building an apartment block, four storeys high, but very, very long, with lots of apartments side by side, all of them looking the same. Here he meets a foreman who shows him the place to sleep. There is no running water, nor any gas. The following minor tasks will increase their lives. He has to make that place suitable to live. He has to make his bed. The player will be provided with a rug, broom and two huge buckets of sand. And he has to pour the sand in the corner, smooth it with a broom and unroll the rug on top of it.

Enaiat says that the site is only their home, their world, and their solar system. There are several other construction workers like him. The game includes cooking, cleaning, constructing the building, etc. For this, he will receive cash in tomans. He says when they don't have a family their friends mean everything to them. For him the decision to emigrate comes from the desire to breathe. He is planning to visit his friend

Sufi. For this he has to escape several barriers. Since he is an immigrant, if he is caught by the police, he will be sent back to the miserable life in his country, Afghanistan. So at the first barrier he gets caught by the police. Now only if he does some work he can escape from the clutches of police. The work is to wash all the utensils there as well as loading and unloading cars and vans. Finishing this will give him additional life and the survival bar will increase crossing through all these obstacles, one such obstacle is on his way. He has to fight with a group of bandits, who takes away his favourite watch. Finally, he meets his friend Sufi at Qom. And he tells him the decision to leave Iran for Turkey.

Mission 4: Escape to Turkey

Eniatollah: Since the day I left Afghanistan about four and a half years have passed, a year and few months in Pakistan and three years in Iran. I was fourteen when I decided to leave Iran I'd had the fill of that life. So I decided to go to Turkey but at that time I didn't know that mountains can kill.

The game should be designed in such a way that he has to cross the mountains and reach Turkey. He has to avoid several obstacles like snow which kills people, the border police who mercilessly slaughter them and has to cross the sea between the Turkish and Greek coasts. (Cut to)

Graphics: Lake, mountains and terrains. The background should be of the panoramic vision of the sunset and the sun is low over the water. And dozens and dozens of rocky little islands against the light and, all over the islands, both on the ground and in the air, tiny dots of thousands of birds could be seen. The journey begins under a starry sky and a big moon.

Different ethnic groups are present. The player has to create his own group to make the journey. The game is to escape into Turkey by traversing the mountains. The player has to use different strategies to complete this. For example, in the spots where there are no trees, they have to run in groups, keeping their heads down. These mountains are endless like a maze. They have to find out their way. In between someone from the group will fall down. Eniat has to protect each member of his group and continue his journey carefully. (Cut to)

The background should be full of snowy mountains, and snowflakes should be seen flying around everyone. Finally, they reach the point Lake Van.

Now the only possible way for them to make their escape is a huge lorry with a huge trailer which seems to be full of stones and gravel. And there will be a place between the bed of the trailer, which carries the gravel and stones, and the underside of the lorry where the axle shaft is a fifty centimetre small space. In other words, the lorry has a false bottom. The instructions to sit inside it will be provided to the player. There will be a fifty-centimetre high space in which to sit with their arms clasped around their legs and their knees against the chests and necks bent to keep the heads wedged between the knees. The survival kit consists of only a single bottle of water. If he loses it or if it finished his survival bar will diminish but if he lends it for the needy his game life will increase. Since the journey is dangerous, Enaiat has to save himself from enemies. The voice track of a small boy crying for water can be heard. So here the player has to make a decision if he loses water, the game rule says that he will diminish his life. Keeping this in mind if the player chooses to give the water, he will immediately gain additional life.

Now the background changes into a marshalling yard for immigrants or something like that, a cave in the belly of the place called Istanbul. He is blindfolded and thrown into the city. The victory point is reached when he removes the cover when he sees the flag of Turkey, the level is completed.

Mission 5: Escape to Greece

In Turkey there is no work for Enaiat and his friends, In order to make a living, they decide to escape into Greece. Soon after he completes the three levels he gets four allies: Their names are Rahmat, Liaqat, Hussein Ali, and Soltan. A trafficker takes them to Ayvalik, which is on the Turkish coast opposite the Greek Island of Lesbos.

The major task lies in crossing the sea. Their survival kit includes a deflated dinghy, two oars, the pump, the adhesive tape and torn life jackets and a pair of water bottles. The player has to assemble this, for which instructions will be provided. They have to start a voyage through the sea. A training session will be available for the player about how to row. While they are in the island they have to escape from boars, barking wild dogs, etc.

In order to cross the sea, the player has to inflate the dinghy with the pump, which is pressed with foot. The maximum weight that it can hold is less than the combined weight of all of them. Now they have to grab the oars and start hitting the surface of water really hard. They will gain points for using strategies. As the game progresses, they have to use the adhesive to patch the hole in the dinghy. (Cut to)

The sea will be rough and it will be midnight, lightning and thunder will be there and through the hole water rushes into the dinghy. The player has to use his strategy in such a way that Enaiat will tear the water bottle into half and use it as a bowl to throw water out

of the dinghy while rowing. The player will be given additional points for this. They have to paddle through the ocean with Enaiat as the leader of their crew.

The waves rise to such a height that it will tower over them. Suddenly one of his friends will fall into the ocean. The player has to make a decision to save him, that is, he has to make Enaiat jump into water and save him. Another dilemma is that the oars are with Enaiat and Soltan, wing to the ferocious currents in the sea, Soltan wants to abandon the journey and return to Turkey whereas Enaiat wants to reach his destination, Greece. So he has to row fast and win the game and make all of them reach the shore safely. Once they complete the mission, the flag of Greece will be seen. (Cut to)

Mission 6: In Greece

Enaiat and his friends land on the shores of Greece. They deflate the dinghy by squeezing the air through the plugs, then by ripping the plastic with the stones. They fold it, hide it under a rock, and cover the rock with sand to prevent the enemies from finding them. After the mission in the sea Enaiat's survival bar has diminished so he has to increase his game life. He needs food. He may steal or ask for the food available in a supermarket. Food is available either he can ask or steal. If he steals, he will be eliminated because it is against game rule. While they go in search of food, but his friends steal food and get arrested. Enaiat is now left alone. As a reward of his honesty, he meets an old lady who gives him food which increases his game life. He has to escape from police and child traffickers to reach a city called Athens. Directions to Athens will be provided to the player. So he has to escape from all these adverse conditions using his strategies. Once he reaches Athens he gets involved in the Games of the Twenty Eighth Olympiad, Athens 2004. He can see the different games there and he has to plant trees there as a part of the

games. With the commencement of the Olympics he decides to go to Italy. (Background should be a festive mood of Athens) Cut to

Mission 7: Escape to Italy

The next major task involves finding an escape route to Italy. The only way is to go to the port, find a lorry and hide in the trailer with the merchandise, or between the wheels. It is actually difficult to get into it. The player has to use several strategies without expecting the outcome. Finally, at the entrance of the port there will be three containers one on top of the other like a three storey building. The player has to make Enaiatollah climb to the top and have to squeeze through a little hole in the container and has to face several obstacles on the way to Italy. Once he sees the flag of Italy, the level is completed. (Cut to)

In Italy

The final stage of the game takes place in Italy. He lands in Venice. He meets a boy who helps him to find a way, gives him food and money. The game involves finding a friend called Payam. Enaiat is tired of roaming. Finally, he wants a place to settle down. But since he is an illegal migrant, he needs to seek political asylum. Here he receives an ally Payam who has also settled in Italy. Both Enaiat and another boy who reached Italy need political asylum. The game rules will be set in such a way that if one of them tells the truth, he will be granted political asylum, and if one of them tell a lie they will be branded as an illegal. If none of them tells the truth, they will not be granted asylum. If both of them tell the truth, both will get it. Finally, Enaiat decides to settle in Italy; Danila, a social worker's family adopts him. He gains asylum as a political refugee. He starts going

to school. The player has a small puzzle game. In the new home, he has two friends. They teach him how to eat, how to dress properly, etc. He calls his mother after five years. The adventure of Enaiat ends with him waving goodbye with his new family members.

These suggestions for converting the trauma narrative into a video game indicate that this can indeed be a new genre in the gaming world. The child will have a new gaming experience where he can tackle the reality through these experiences.

CHAPTER 5

CONCLUSION

Games are a popular art form in, any culture. Games, like institutions, are extensions of the social man and the body politic, as technologies are extensions of the animal organism. Both games and technologies are counter-irritants or ways of adjusting to the stress of the specialized actions that occur in any social group. As extensions of the popular response to the workaday stress, games become faithful models of a culture. They incorporate both the action and the reaction of whole populations in single dynamic image. (McLuhan 64)

Games can often be the best teachers. When real life narratives like *In the Sea There are Crocodiles* are converted in a video game, children will be exposed to the stark realities of life. They will be shaken from the world of fantasy. This game intends to subvert the couch potato genre of video games. Here the virtual world will encourage the player to actively participate in the game. With the aid of graphics and simulation, this will recreate reality. The children will be accustomed to the hilly terrains, ferocious ocean, and the sensation of being crammed up in the dark corners of trucks clutching for one's precious life. So the trauma narrative will be converted into a virtual reality. At the end, the player's will learn to face life with an optimistic attitude. They will learn to love their companions, and he to protect themselves as well as their surroundings.

In this modern era suicide rates are increasing. A research paper in the Indian Journal of Psychiatry it is states that "About 800000 people commit suicide worldwide

every year of these 135,000 (17%) are residents of India, a nation with 17.5% of world population". (Vijayakumar 199-200). When children are exposed to reality games like this, they will learn to see life as an adventure. This can indeed be a solution to motivate people to value life and their survival can bring the change. It will also be helpful to prevent children from the maniacal violence within the western games and to create an Indianised version of life narrative in future. The prevailing Indian idols among kids are Chota Bheem, Krishna, Ganesh, etc. who are all superhuman characters. They fight against the evil and do amusing things which transport children to a fantasy world. These games make the child to adore someone and it further pushes him into a world of fantasy where he is kept aloof from the real world. The child will try to imitate the actions of these superheroes and end up disappointed without knowledge of the real life. But characters like Enaiatollah will prepare the child for the real world. He will learn that life is not a candy. He will imbibe the way of the world. Hopf, Huber and Weib argue that lack of parental monitoring together with frequent exposure to violent media can lead to a significant risk of child demonstrating antisocial behaviour during adolescence.(8) But in this newly created game parents will feel safe to leave their children in front of it because the lessons he learns is for leading a fruitful life.

The game In the Sea There are Crocodiles is intended for children belonging to the age group of five to ten, because it is the formative years of the personality of a child. "The Early Childhood Curriculum Framework" by the National Council for Curriculum Assessment states that "The personality of a child between five to ten years involves the basic processes of movement, play, communication, self-esteem, and understanding of self and others, as well as the symbolic layering in development (leading to dances,

reading, writing, mathematical and musical notations, drawing and model making) support children's learning and development." Erikson observed that "children from birth to approximately five years negotiate three stages of social and emotional development: trust versus mistrust, autonomy versus shame and doubt, and initiative versus guilt." (10) Children's experiences with the real world in these new genre of games lead to a development of trust, autonomy and initiative as they develop lasting feelings of hope, acceptance, will power and purpose.

With the introduction of first-person shooter games in 1992, there was a turning point in the use of violence in video games in that the violence took on a more personalised form. McLean and Griffith argue that "The increases in processing power and in children's ability to use multimedia and increasingly sophisticated graphics and consoles have also allowed for, and resulted in, a desire for more realistic games". (13) Recent research has highlighted the continued importance of realism in terms of storylines and characters for male and female gamers. Video games are an accessible media that can be marketed to all age ranges, societal level, and gender. Therefore, "gaming is an activity that anybody can potentially become good at and achieve goals in. This may be a particularly important motive for young children, who value the accomplishment and pride in game playing" (Funk, Chan, Brouwer, and Curtiss 11). Other structural characteristics of the new game such as manipulation and control features, its layout graphics everything should be designed in such a way to create an immersion among the players by recreating the realities of life to them.

What needs to be improved through this research is that more initiatives should be taken in converting such survival stories as Enaiatollah's to reach the children. Children's

Literature is a broad genre which provides numerous possibilities of converting several such inspiring stories into games. For example, Malala Yousufzai's story can be converted into an adventure game. Her story of survival will inspire children across the world to value education. Another important fact to be taken into consideration is converting this text into a video game requires enormous technical support. It involves "Design phase , I/O Structure, Game Structure, Program Structure, Evaluation of the Design, Pre-programming phase, Programming phase, Play testing phase, Post-mortem." These are the various stages in the development of a video game according to computer designer Chris Crawford. (45). All these skills require enormous technical proficiency in transforming the game into an amusing video game. Gameplay is the most important pillar of the game design activity. A handful of good core mechanics and some carefully thought satellite mechanics allow creating games with simple but yet rich and entailing gameplay, capable of providing to players the challenge, mastery and reward that they seek, without unnecessary difficulties, thus sustaining and enhancing their motivation. "Game designers should be in first place skilled and sensitive toy-makers, capable of building a comprehensive but yet parsimonious set of core and satellite mechanics. And then, they should be architects capable of building apparently complex gameplay structures with as few toys as possible." (Tschahg 71). Another important factor is the cost of video games. Some online video games can be played only on payment, so it is essential to create a cost effective product where the end-user can easily access.

This case study is based on the possibilities of converting the book *In the Sea There are Crocodiles* which is a trauma narrative into an interesting and instructive videogame. Indeed, it is the survival story of Enaiat, a ten year boy which can become a

motivation for children across the world. This research reflects upon a creative contribution to develop a new genre of video game which subverts the notion of violent maniacal games. This game progresses by making the child know about the positives and negatives, or the merits and demerits that the life offers. This is a new venture in exploring the boundaries between humanities and video gaming.

WORKS CITED

- Aarseth, Espen J. *Cybertext: Perspectives on Ergodic Literature*, John Hopkins University P, 1997.
- Anderson C.A, and Bushman B J. “The Psychological Effects of Video Games on Young People: A Review.” Edited by Lavinia Mclean and Mark Griffith, *International Gaming Research Unit, Psychology Division*, Nottingham Trent University, 24 March. 2013. Accessed 13 June 2017.
- Ariès, Philippe. *Centuries of Childhood: A Social History of Family Life*. Translated by, Robert Baldick, New York University Press, 1962.
- Baggley, Sean Timareo. *Breaking the Cooking Glass*. Edited by Francois D Lamaree, Charles River Media Inc, 2002.
- Brams, Steven J. “Game Theory and Literature.” *Games and Economic Behaviour*, vol. 6, 4 Feb. 1992. pp. 56-73.
- Brison, Susan J. “Trauma Narratives and the Remaking of the Self.” *Acts of Memory Cultural Recall in the Present*, edited by Mieke Bal et al., University Press , New England, 1999.
- Brown, Kevin Leyton, and Yoav Soham. “Essentials of Game Theory: A Concise Multidisciplinary Introduction.” *Synthesis Lectures on Artificial Intelligence and Machine Learning*, Morgan and Claypool Publisher, 7 Nov. 2008,

www.morganclaypool.com/doi/abs/10.2200/S00108ED1V01Y200802AIM003.

Accessed 31 May 2017.

Castel, A. D., Pratt, J., & Drummond, E. "The Effects of Action Video Game Experience on the Time Course of Inhibition of Return and The Efficiency of Visual Search." *Acta Psychol*, vol. 1, no. 12, Dec. 2011, pp. 217-230. 2005.

Crawford, Chris. *Chris Crawford on Game Design*. New Riders, 2003.

Culbertson, Roberta. "Embodied Memory, Transcendence and Telling: Recounting Trauma, Re-establishing the Self." *New Literay History* vol. 26, no.7, Apr.2013 pp. 36-57.

De Ley, Herbert. "The Name of the Game: Applying Game Theory in Literature." *Substance*, vol.17, no.1, Jan.1988, pp.33-46. JSTOR, www.jstor.org/stable/3685212 www.jstor.org/stable/3685212.

Erikson, E.E. *Childhood and Society* (2nd ed.) Norton University Press, 1963.

Forster, E.M. *Aspects of the Novel*. Penguin Classics. 2005.

Funk, J. B., Chan, M., Brouwer, J., and Curtiss, K. "A Biopsychosocial Analysis of The Video Game-Playing Experience of Children and Adults in the United States. *SIMILE: Studies in Media and Information Literacy Education*", vol 56, pp.15. 2006.

Geda, Fabio. *In the Sea There Are Crocodiles*. Translated by Curtis Howard, Vintage Books, 2010.

Grenby, Matthew. *Children's Literature*. Edinburgh University Press, 2008.

- Hunt, Peter. "Narrative Theory and Children's Literature." *Children's Association Quarterly*. vol. 9, no. 4, Winter. 1985, pp. 191-194 Published by Johns Hopkins University Press <https://doi.org/10.1353/chq.0.0415>.
- Jenks, Chris. *Childhood*. 2nd Ed. Abingdon: Routledge, 2005.
- Kucklitch, Julian. "Literary Theory and Computer Games." *Literary Theory and Computer Games*, Jornalista, Editor Do Correspondents.org.
- Lerer, Seth. *Children's Literature: A Reader's History from Aesop to Harry Potter*. The University of Chicago Press, 2008.
- Majewski, Jakub. "Theorising Video Game Narrative." MFT Project submitted to Centre for Film, Television & Interactive Media School of Humanities & Social Sciences Bond University, 12 Oct. 2003. Accessed 27 May 2017.
- McAdams, Dan P. "Personal Narratives and the Life Story: Theory and Research." *In Handbook of Personality: Theory and Research*, 3rd ed., Guilford Press, 2008.
- McCulloch, Fiona. *Children's Literature in Context*. Continuum International Publishing Group London, 2011.
- Mcluhan, Marshall. *Understanding Media: The Extensions of Man*, Routledge, 1964.
- Mukherjee, Sampat. *Analytical Microeconomics Exchange Production and Welfare: From Alfred Marshall to John Nash*. New Central Book Agency, 2006.
- Murray, Janet H. "Toward a Cultural Theory of Gaming: Digital Games and the Co-Evolution of Media, Mind, and Culture." *Popular Communication*, vol.4, no.3, 2006, pp.185-202.

- Neiva, Edward, and Carlo Romano. "The Semiotic Immersion of Video Games, Gaming Technology and Interactive Strategies." *The Public Journal of Semiotics* , vol. 1, no. 2, July 2007, pp. 31–49.
- Osborne, Martin. J. *An Introduction to Game Theory*, Oxford University Press, 1987.
- Ostenson, Jonathan "Exploring the Boundaries of Narrative: Video Games in the English Classroom" *The English Journal*. vol. 102, no. 6, July 2008, pp.71 -78, JSTOR, www.jstor.org/stable/24484129
- Rockwell, Geoffrey. "Gore Galore: Literary Theory and Computer Games." *Computers and the Humanities*, vol. 36, no. 3, May. 2002, pp. 345–358. JSTOR, www.jstor.org/stable/30200532.
- Ross, Don. "Game Theory." *Stanford Encyclopedia of Philosophy*, Stanford University, 25 Jan. 1997, plato.stanford.edu/entries/game-theory/. Accessed 10 June 2017.
- Rousseau, Jean Jacques. *Emile or On Education*. Translated by Alan Bloom. Basic Books, 1979.
- Squire, Kurt. "From Content to Context: Video Games as Designed Experience." *Educational Researcher*, vol. 35, no. 8, 2006, pp. 19–29. JSTOR, www.jstor.org/stable/4124789.
- Susina, Jan. "Children's Literature" *Encyclopedia of Children and Childhood: In History and Society*. Ed. Paula S. Fass. Vol. 1. Macmillan Reference USA, 2004. 178-185.

Taylor, Laurie. "Journal of Film and Video." *Journal of Film and Video*, vol. 55, no. 4, Sept. 2003, pp. 58–60. JSTOR, www.jstor.org/stable/20688435.

Tekinbaş, Katie Salen, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. MIT Press, 24 Sept. 2003, mitpress.mit.edu/books/rules-play. Accessed 30 May 2017.

Tschang, Ted. "Balancing the Tensions Between Rationalization and Creativity in the Video Games Industry." *Informs, Organization Science*, 12 Mar. 2016, 12 Sept. 2001, ink.library.smu.edu.sg/lkcsb_research/647/. Accessed 10 July 2017.

Vijaykumar L. "Suicide and its Prevention: The Urgent Need in India," *Indian Journal of Psychiatry*, vol. 128, no. 1, Jan. 2007, pp. 199-200.

Von Neumann, J and Morgestern O. *Theory of Games and Economic Behaviour*. Princeton University Press. 1944.

White, Michael. "Children, Trauma and Subordinate Story Line Development." *The International Journal of Narrative Therapy and Community Work*, no.3&4, 2005, pp.1-12. Accessed 22 May 2017.

Wolf, Mark "An Introduction to Video Game Theory." *Formats*, University of Pompeufabra, 12 July 2003, www.iaa.upf.es/formats. Accessed 31 May 2017.

Yee, Nicholas. *The Norrathian Scrolls: a Study of Everquest*. 2008, *The Norrathian Scrolls: a Study of Everquest*, www.nickyee.com/eqt/report.html. Accessed 27 May 2017.