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Game Design for Values Education

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Abstract

This research project examines three major approaches for values education (VE) - i.e. character education, moral development, and values clarification, and their relevance to the design of games, which seek to teach values and build awareness on complex moral problems. The study aims to establish whether the traditional field of VE could provide helpful insights into the conscientious design of games for change (G4Cs) and the consistent moral education of players. The study begins with a thematic analysis of the three approaches of VE, which is attempted to be inclusive, considering the following key aspects of each approach: the philosophical ground, the recommended practices and the critiques. The results of this analysis are systematized into a theoretical model, which is named VEGA (Values Education for Games Analysis) model. This model is then used for three case studies, an in-depth game analysis of three contemporary G4Cs: *Power Explorer (Interactive Institute, 2008), The Movement (Basa e.V., 2009)* and *Urgent: Evoke (World Bank Institute, 2010).*

The empirical evidence indicates that the VEGA model is helpful for a deep analysis of games teaching values, as it discloses moral aspects that have not been considered before and otherwise would be hidden. The empirical studies demonstrate in this way the applicability of the VEGA model as an instrument of game analysis for G4Cs. Furthermore, the research question can be answered; the field of VE can be helpful in identifying and describing the moral educational aspects of the design of G4Cs, guiding towards a more conscientious design of G4Cs. Seeking to provide some more design-oriented moral guidance, this study proceeds to exemplarily create a pattern language and a small library of patterns for designing games for VE. These newly developed game design patterns are put into practice by guiding the design of a new G4C - *Epilogi In Crisis (Tramus et al., 2014)* - which can be considered as a proof of concept for their future utility.

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Table of Contents

List of Abbreviations

ARG	Alternate Reality Game
HCI	Human Computer Interaction
LARP	Live Action Role Playing
NPC	Non Player Character
VE	Values Education
VEGA	Values Education Game Analysis
VR	Virtual Reality

Introduction

Games are increasingly being investigated as effective for educational purposes[1], while the last decade shows a huge increase in empirical studies investigating the learning effectiveness and motivational appeal of serious games (see e.g. Aitkin, 2004; Clark, Tanner-smith, & Killingsworth, 2016; Egenfeldt-Nielsen, 2005; Rieber, 1996; Sitzmann, 2011; Squire, 2005). According to these studies, serious games are perceived as "de facto" effective learning environments (Mitchell & Savill-smith, 2004) as they motivate and support players to approach, explore and overcome problems. More precisely, serious games "can provide an excellent context not only to acquire and test knowledge and skills, but also to closely examine an environment without the barriers of time and space (and any other type of costs), thus can be gyms where new knowledge, practices and solutions can be developed" (Bellotti, Berta, & De Gloria, 2010, p. 22). Nonetheless, games may also help us better empathize, express, and connect (Isbister, 2016), reflect on ethical decisions and moral issues (Schrier & David, 2010; Schrier, 2014a, 2015b) and learn about real-world problems (Koo & Seider, 2010; Schrier, 2016; Swain, 2007). This study focuses on *games for change (G4C)*, namely games that enhance ethical awareness and promote change on players´ moral views and behaviors regarding real-life problems - political, social, or environmental. Such games have been labeled with different, often overlapping terms, such as "social impact games", "games for social awareness", "games for ethical thinking", or "games teaching values".

The design of G4C games involves very different challenges compared to the design of games just for fun. The designer must take *a series of ethical decisions with moral implications* that have not yet been adequately clarified and studied. Another challenge in the case of G4Cs is that there is a *lack of formal criteria to evaluate* whether the expected ethical awareness has been achieved, or to compare the design of this game for ethical thinking with others. Moreover, as G4Cs address very diverse issues, there are also multiple subjective interpretations for the ways that these issues are handled by the

[1] See e.g. Shaffer, 2005; Gee, 2003; Squire & Jenkins, 2003; Turkay, Hoffman, Kinzer, Chantes, & Vicari, 2014; Wouters, van Nimwegen, van Oostendorp, & van Der Spek, 2013

design. Considering that *the design of games – in general - has been recognised as a wicked problem*1 (Rittel & Webber, 1973), the case of designing G4Cs can deliberately fall into this category. Any study of the design of G4C must recognize the complexity that arises from their being a wicked problem. After taking into account all these special challenges of the design of G4Cs, the question is how it can be studied then. This study is an attempt to study the design of G4Cs by considering the difficulties.

To our knowledge, very few studies have so far addressed the particular moral challenges associated with designing digital games to convey values. Moreover, these studies have tended to presuppose certain values and thus, to limit themselves to a particular moral theory or a particular set of values without reflecting on this decision. In other words, researchers have failed to deal with the diverse approaches and goals of moral education, to provide to designers a systematic understanding of different moral directions when designing G4Cs, or to account for the ethical implications of their design decisions.

In this study, I put forward the claim that there must be some common concerns as well as some common practices when designing for moral education, both in the classroom and through digital games. Hence, *the idea* is to draw on the study of the traditional field of values education and to examine whether this knowledge can be of any assistance for the design or the analysis) of G4Cs. As well as to examine how the field of VE - so far applied only in the classroom - can be processed and transformed in order to support the design (or the analysis) of G4Cs. *Aim of this study* is to offer *moral and practical guidance to game designers in order to more consciously handle the moral challenges of G4Cs.*

Values education (VE) has a long history in addressing the moral education of people. It involves many interdisciplinary studies, diverse philosophical approaches, and a considerable practice in schools around the world. In an attempt to make this education as consistent as possible, the field of VE covers a substantial number of theoretical moral concerns, identifies the most common practical difficulties and suggests concrete pedagogical methods for handling them. What particularly interests me from this field, is the *diverse VE movements* that have been developed in the past several decades. Each of these movements has its own way to interpret morality, as well as its own objectives and its own educational practices, bringing up overall different moral experiences and

educational outcomes. Additionally, there is an ample and multidisciplinary critique, uncovering and discussing the benefits and drawbacks of each approach. The field of VE could offer useful resources on multiple approaches and concrete practices for teaching values and educating about sensitive moral issues. So far though, VE has been only addressed to a classroom context.

Research questions: This project is an exploratory research examining *whether and how the traditional field of VE can inform the design of G4Cs.*It consists of a systematic research into the VE approaches with the *major objective* to provide a better understanding of games teaching values and to facilitate game designers to become more conscientious about their moral decisions. Hence, the research questions addressed by this study are: *whether the traditional field of VE can a) provide a better understanding of the design of G4C, and b) provide helpful insights for the conscientious design of G4Cs and the consistent moral education of players.* More specifically, this project is focusing on the study of three major VE approaches – i.e. *character education, moral development, and values clarification*, considering the following key aspects of each approach; *the philosophical ground, the recommended practices and the critiques* (cf. paragraph 1.3).

To answer these research questions we need a model which is theoretically and empirically based, and can be used as an instrument for designers of G4C. In the first step the VE theories and practices need to be *integrated and systematized into an overarching theoretical concept*. This part of the study is exploratory and interpretative in nature. Data has been collected by the main VE theorists and critics, as well as by handbooks, online VE programs and school websites. What results is the VEGA (Values Education for Game Analysis) model. This theoretical model is applied then for an in-depth game analysis of G4Cs. Three contemporary and popular games are selected to be examined in this survey: *Power Explorer* (Interactive Institute, 2008), *The Movement* (Basa e.V., 2009), and *Urgent: Evoke* (World Bank Institute, 2010). The empirical findings indicate that indeed, the VEGA-analysis succeeds to shed light on subtle moral aspects of the games' design. This empirical study is essential for two reasons. First, the VEGA model is brought to the empirical ground of games teaching values and demonstrates its applicability as a tool for analyzing games teaching values. Second, based on the results of the case-studies, the research questions can be answered;

a) the traditional VE theories facilitate the understanding of moral education designed in games, and b) provide moral guidance for the conscientious design of G4Cs and towards the consistent moral education of players. This is done by identifying significant factors for designing moral education in games, as well as by mapping three distinct game design approaches for moral education, each with distinct moral objectives and strategies.

The expected result is a tool that would provide designers a deeper and more systematic understanding of their design options and the moral direction of their artifacts, the practices commonly used, as well as the moral implications of their decisions. By drawing on systematic research into three VE approaches and their connection to game design, this study is expected to map these approaches and practices for educating values through games, while considering as well in each case the most relevant ethical concerns (cf. paragraph 1.6).

What I did not expect as a result, but what emerged as a result during the process of model building is the possibility of creating a *pattern language for designing VE in games.* This is followed by the creation of a small library of *design patterns for G4Cs* documenting the different design VE approaches of the empirical studies, while also containing theoretical and practical guidelines for designing G4Cs. This pattern library has been put into design practice by guiding the design of a new G4C within the limits of this project. *Epilogi In Crisis* (Tramus et al., 2014) is a VR art-game[2] about the recent social and economical crisis in Greece. The application of the new design patterns for designing a game can be considered as a proof of concept. It confirms that the provided library of patterns can be directly applicable for designing games for teaching values.

Disclaimer: It is consequent that this study is unable to encompass the entire spectrum of VE possibilities and game design approaches by means of these three educational approaches studied. Admittedly, the movements of character education, moral development and values clarification have been significantly popular in the last century, providing a basic and relatively spherical insight into how formal moral education can be performed. Nevertheless, they are not the only possible approaches for moral

[2] The game is conceived and developed by the research group of the MSc of the Athens School of Fine Arts and the Paris-8 University.

education. This study, starting from these well-developed approaches, intends to illustrate that there is still much to be learned from the field of VE. Another limitation of the study is regarding the patterns developed; although the study achieves to set the fundamental questions in need of further investigation, considerably more empirical work is needed. The aim of this work would be to determine the efficacy and the contextualization of the developed patterns. Future research could also explore and identify alternative design patterns to be added in the library. Foremost, the reader should bear in mind that the aim of this study is not to set any moral standards, nor to create a comparative tool for the ethics of G4Cs. The objective generally is not to limit the creativity of the game design process, but to support it. This is well-suited to the concept of design patterns.

Expected contributions to Game Design and the field of Digital Media: The knowledge produced in this study is expected to *advance our understanding of the design of G4Cs* and to offer *moral and practical guidance to the designers of G4C*. Mapping diverse game design options for moral education could facilitate designers to take more informed design decisions and find ways to tackle common design problems. Moreover, exploring the most important ethical concerns when designing for moral awareness could help designers of G4Cs to clarify better their moral aims, anticipate possible ethical drawbacks and strive for a more conscientious game design. All the above can contribute to the field of game design, and more particularly to the emerging field of *values-conscious game design* (Flanagan, Howe, & Nissenbaum, 2005, Flanagan & Nissenbaum, 2014)[1] and the related field of *persuasive game design* (Bogost, 2007, Khaled, et. al. 2006).

Additionally, by creating a pattern library for the design of G4Cs, this study provides the first steps for building a *common language for the analysis and the design of G4Cs in terms of moral education.* This language can allow game designers, educators and any stakeholders involved in the design of G4Cs, to share, analyze and discuss their moral intentions, their concerns, their design techniques as well as their play experiences. A common vocabulary could facilitate the *criticism* of existing G4Cs, while it provides the exciting opportunity to add new data - deriving either from further research, or from other design and gameplay experiences. Finally, the investigation of the connection between the VE field and the design of games teaching values can be

inspiring for the *innovative design of G4Cs*. The design resources and the moral guidelines to be provided could bring about new design ideas and novel gameplay experiences, from a moral and educational perspective.

The current dissertation contains four parts. In the first introductory part, I intend to describe the area of concern, to clarify my research approach and to situate the study by providing a brief review on the relevant academic research. By defining the key terms used in the study, I state its particular focus and I provide a synopsis of the research design. The second part presents the main theoretical approaches for VE and describes the creation process of the theoretical model. In the third part, the theoretical model is empirically applied in three case studies and through this process demonstrates its applicability and relevance to games teaching values. The fourth part contains the conclusions from the research, which is followed by the creation of a pattern language for the conscientious design of G4Cs. This language is applied at last, for the design of the game *Epilogi In Crisis*.

1. Subject and Approach

1.1. Area of Concern and Problem Setting

This project is part of the research on the design of *games for change* (Ashton, 2007; Games for Change, 2019a), *games teaching values* (Schrier & David, 2010; Schrier & Gibson, 2010a), *activist games* (Flanagan & Nissenbaum, 2008) or *games for social change* (Flanagan, 2006; Swain, 2007), which as a field is gradually getting more attention from the academic community. It is also part of the research on the broader field of *values and ethics in games*, alternatively known as *values-conscious game design* (Flanagan, Howe, & Nissenbaum, 2005), *ethics of computer games* (Sicart, 2009), *ethics of game design* (Takahashi, 2004), *videogames ethics* (Zagal, 2011), *values at play,* or *conscientious design* (Flanagan & Nissenbaum, 2014).

As a substantial body of literature has reflected, all design products, from clothes to the late technological artifacts, contain values. Values in the design of games appear in its more variegated complexity. Digital games especially, with their interactive narratives and immersive game-worlds, undoubtedly reflect value systems. The current project focuses particularly in *games for change (G4Cs)*. Designers of G4Cs are expected to introduce "good" behaviors, to raise serious ethical issues and to convince players to proceed to political actions. It is discernible, thus, that *G4Cs not only convey values as any designed artifact, but intend to educate players in moral values.* This particularity signifies that the design of G4Cs in terms of values cannot be studied as in other games designed for fun. However, up to now, much of the research on game-ethics has treated G4Cs as any other games designed for fun. This fact hinders the general discussion around G4Cs' ethics, as well as the potential improvement of the G4Cs' design. Hence, apart from a scientific literature gap, is a practical design problem with serious ethical implications. The design of G4Cs needs special attention and moral guidance.

The lack of a scientific tool examining the values in G4Cs means as well the lack of any moral standards for the assessment, or just for the criticism of the design of G4Cs. To date, far too little progress has been made in the investigation and the evaluation of the *moral impact* of such games. This is because the scientific area is too difficult to be approached, as values and moral changes are too abstract and vague to be measured. It is difficult to estimate the "level of awareness" achieved, the magnitude of the so-called

"social impact", or the type of "change" brought forth in players´ real lives. Equally difficult is the question of whether we could talk about designing "better" or more "ethical" G4Cs. Towards which direction would "better" design move, or in other words what is the ultimate goal of designing "ethical" G4Cs? This study attempts to set some standards for the understanding and the assessment of players' moral education. This will be done from the perspective of *design*, using the process of design "as a type of formative assessment" (Schrier, 2014c, p. 151). While the project will also be concerned with the possible impact of particular design choices, as the VE theories refer also to linkages between learning practices and their moral effect.

Yet, it is important to remind the reader that the problem that this research is handling - related to ethics, design and moral education on serious societal problems - is considered a wicked problem. Which means – apart from everything else - that due to the politicization of the topics examined, the diverse interpretations of its basic concepts, and to the inevitable existence of a number of biases, the area on which this study is stepping is actually a "minefield". Apparently, there is a risk of serious missteps, which might put into doubt the neutrality of the researcher, and consequently the validity of the research outcome. This is a heavy burden carried often by researchers in fields related to ethics[3].

Finally, despite the theoretical guidance on designing moral education, what would be fundamentally useful is providing some practical guidance for the design of G4Cs, by transferring knowledge from previous design- and gameplay- experiences, or by documenting common design choices and techniques. The current study puts forward this aim, and attempts to map the ways that moral education can be performed in G4Cs, as well as to provide practical moral suggestions, and innovative design ideas.

1.2. Basic concepts of this study

In order to provide a better understanding of the subject of this study, I introduce the following fundamental concepts: games for change, values, values education, and define

[3] Nonetheless, for the study of ethics it is believed that "the benefits of the research outweigh the burdens" (Fugelsnes, 2016).

the connections between them. This chapter intends to prepare any reader - even non-specialist ones - to follow the conceptual flow of the current work.

1.2.1. Games for change; games for values education

G4C Association was formed in 2004, as a sub-group of the Serious Games Initiative. The aim is "to leverage entertainment and engagement for social good" and to facilitate "the creation and distribution of social impact games that serve as critical tools in humanitarian and educational efforts" (Games for Change, 2015). Today, the term is becoming more and more popular. A Google-search on "games for change" renders about 756 million hits [2015-05-05]. However, there is no current singleton definition of the concept. G4C contains political games, activism games, ecology games, healthcare games, news games, and games for personal and social learning & ethics, with the aim to raise awareness and promote change. Some recent examples of G4C include *This War of Mine* (11 bit studios, 2014) providing an experience of war from the civilians' perspective, *Phone Story* (Molleindustria, 2011) about the dark side of smartphone manufacturing, *Papers, please* (Pope & 3909, 2013) about immigration, or *Food Import Folly* (Persuasive Games, 2007) about the politics of U.S. food imports.

Thus, ***what is exactly the change that G4Cs are aiming at?*** Christopher Swain claims that games can be designed "to effect social change", meaning that they "want to raise awareness of their issue and they want to stimulate interest and activism" (Swain, 2007, p. 1). Ruggiero (2013) calls these games *social impact games* and what she believes that mainly characterizes them, is that they inform the players about authentic problems, in an interactive format, allowing them to experience the games' problem, and find ways to solve it.

Through G4Cs, players gain knowledge on local and global social problems, understand abstract concepts of civics, while also learn on a variety of disciplines. Moreover, since they have access to ethical and moral questions, they develop social/moral responsibility and "develop their own sense of right and wrong" (p.3). Hence, the change that G4Cs bring about is in fact a change of players´ moral views, which is an awakening of their feelings around sensitive social issues. Players sense a social problem, reflect on its causes, feel what is right to do about it, seek for answers to relevant moral questions, and discuss how it could be better resolved. This arousal of moral emotions and thoughts is likely to lead players to the reconsideration of their

individual beliefs, to the appraisal of their former attitudes, or/and to the undertaking of moral actions towards the resolution of the problem. It is a sort of moral awareness, which is then projected back on the society, either by means of political action, or just by spreading the new knowledge and sharing the concerns. Even the social or personal problems that G4Cs describe are related to ethics; promoting healthy nutrition e.g. is connected to the value of well-being, while fighting against discrimination derives from the values of equality and respect of human rights. *Thus,* what summarizes all of the above, and reveals the perspective of this project, is that G4Cs aim at *changing players' values in real life, which could reverberate throughout society as a whole.*

Subsequently, based on the aforementioned arguments and for the purposes of this research, I re-define G4Cs as following:

> *G4Cs attempt to educate players regarding moral problems - personal and/or social; this is usually an attempt to stimulate players' interest, to awake players' moral emotions, to make them acknowledge unfamiliar perspectives of the problem, reflect on their values and reconsider their beliefs, as also to motivate them to change their personal attitudes and to take political action for resolving the problem.*

For achieving their objective, *G4Cs use diverse ways, which carry their own ethics.* For example, some games strive to persuade players towards some particular behavior, while others provoke them to reflect on what they believe is morally right. As it is evident, the design of G4Cs is significantly bound to values and ethics, in many more aspects than the design of other games. *G4Cs deal exclusively with moral issues, have a moral objective, and use morally diverse means.* As a result, the design of G4Cs is entitled to a much more profound study of its values, examining not only which values are promoted, but also what moral change is expected by the players, and how this moral education is performed. This is exactly what the perspective of this project is.

Some further clarifications though are needed, for understanding better G4Cs. As already clarified, ***G4Cs are not identical to educational games***. Typically, educational games are games appropriate to be used in the formal setting of a classroom for teaching knowledge defined by curricula, such as mathematics, biology, or language. They are therefore designed according to the needs and characteristics of particular age groups and aim at learning outcomes that can be to some extent evaluated. G4Cs, on the other hand, are usually designed for being played in a more "informal" setting, and most

importantly, they *do not target at teaching specific content, rather than at stimulating the players' interest, reflection and action on a real moral issue.* Hence, while in game-based learning many models have been developed for evaluating the effectiveness of the products, it would not be easy to measure the learning outcomes of G4Cs. Moreover, G4Cs sometimes target players' groups with particular characteristics, but this is not determined by the learning capabilities and the age of the group, rather, by the social needs for influencing particular groups. Conclusively, the study of *G4Cs cannot share the same design frameworks and the evaluation methods developed for educational games.* The design and analysis of G4Cs needs different approaches, covering the broader learning goals of these games. This research aims to cover precisely this need, by introducing the distinct relation of G4Cs with values education.

G4Cs are meant to be played. Play has been an enjoyable activity since the beginning of humanity, and we can observe it in animals as well. It is voluntary, intrinsically motivated, and implies active participation, which makes the ones playing to escape for a while from reality. As Huizinga, a Dutch historian and cultural theorist defined it, it is "a free activity standing quite consciously outside "ordinary" life as being "not serious," but at the same time absorbing the player intensely and utterly" (Huizinga, 1949, p. 19). While, another interesting, inclusive, and succinct definition of play, is the following: "*Play is free movement within a more rigid structure*" (Salen & Zimmerman, 2004). This definition applies to all meanings of play, from playing a game with rules or with a ball against a wall, to being playful e.g. with words, or while walking into the streets. The rigid structures in each case are different but evidently present; they might be the structures of rules, the structures of physics while bouncing the ball, or social and anatomical structures. This means that "*play exists because of more rigid structures, but also exists somehow in opposition to them*" (Salen & Zimmerman, 2004, p. 304). Considering this last definition, the answer to whether we can conceive playing G4Cs as a free movement within rigid structures, would be yes. G4Cs confront social problems, which are usually not covered by mainstream education and the traditional media. As Ruggiero clearly asserts, social impact games "offer an out of the ordinary potential to allow game players to look beyond perspectives they are bombarded with through peer groups and traditional media" (Ruggiero, 2013, p. 5). Players are asked to open new ways to improve themselves and the society, to act more ethically and more consciously. What G4Cs aim to change then, is the prevailing current of thought and action around personal or social issues, which I interpret in this study as the *present*

socially predominant value structures. Subsequently, G4Cs exist because of - and against - the dominant value structures; they reveal different truths than them, they doubt them, they criticize them, and they invite players to reflect upon them. Hence, *G4C is actually about playing with values and ethics, both personal and/or societal*.

G4Cs are mainly digital games. Digital games share some tendencies that do not apply in other games, mainly due to the support of electronic-digital means. Digital games can manipulate large information spaces (e.g. 3d data), automated complex systems (e.g. graphics engine, opponent AI), and networked communication (e.g. online forums) (Salen & Zimmerman, 2004, p. 87-89). Moreover, it is the computer that handles the rules instead of the players, and the players have the chance to reach only temporary outcomes, log out from the game and continue later (Juul, 2005). In his book *The Art of Computer Game Design,* Chris Crawford adds that digital games are "*a safe way to experience reality*" (Crawford, 2000); although they provide conflict and the feeling of danger, there is no risk of harm. This quality is what provides the opportunity to players of G4Cs to experience and address real world problems without danger, and to the designers to represent a broad range of social and personal issues. What is mostly emphasized in digital games though is the characteristic of *interactivity;* as players interact with the designed system of a game, create actions and receive outcomes. *Interactivity*, thus, is a reciprocal and iterative process between the game system and the player, and occurs in many different levels in a game. In the book *Rules of Play* (Salen & Zimmerman, 2004, p. 59-60),the authors distinguish four modes of interactivity that a person might have with a system; *cognitive*, *functional*, *explicit* and *beyond-the-object*. G4Cs are interactive, as are any other games, in all these modes.

G4Cs are serious and fun at the same time. For many people the concept of serious games seems *oxymoron*: how can a game be designed for fun and at the same time be "serious" - can fun be combined with learning? The main argument of this view is that playing a game, according to the characteristics of Caillois (1961), is supposed to be a free and voluntary activity, with no connection to reality. Consequently, a game cannot be part of a required curriculum or be brought into work. Neither can it excite the fantasy of the player by using real facts and situations. The above questions have been brought into discussion through a plenary presentation at the Interacting with Immersive Worlds Conference in Canada (Rockwell & Kee, 2011). The main conclusion is that among *all* games (board games, card games, ball games, Olympic Games) there are many similarities, relationships and common characteristics, but not *all* of these features

are encountered in *all* games. In other words, what is claimed is that there can only be "family resemblances" between games (Wittgenstein, 2001, p.7). Thus, even if G4C, or serious games in general, do not fit exactly to the game definitions deployed, still hold a family resemblance to other games that do. The same researchers finally argued that a game can combine fun and learning; fun through the activity of playing, and education or any other serious tasks through its aims.

The relation of learning with fun has been broadly studied by the academic community; modern and classical authors from both fields of game studies and pedagogy support that there is coherence between these two notions. Vygotsky (1978) for example, emphasizes the significance of play for the cognitive, physical, social, and emotional development of children and youth; "*Play contains in a concentrated form all developmental tendencies*" (p. 74). Jean Piaget (1951) as well, spoke of play as a consolidation of newly learned behaviors and intellectual information into the existing cognitive structures of the players, claiming that this process leads to growth. That is to say, the educational potentials of play are inherent. Someone could argue then, that since *all games* promote some sort of learning and development, then *all games are serious*. However, there is a large difference between a game that is designed for fun, and a game designed from the beginning with specific learning objectives. This research project is not interested in fun games, even if through play they turn out to have some impact on players´ social or personal awareness. The focus is on *games designed as serious*, *bringing up social or personal ethical problems*. This distinction is important to be made.

1.2.2. Values

Defining values is not an easy task. Multiple endeavors to conceptualize the notion of values have emerged since the 1950s. However, they have not yet succeeded in coming to a common agreement. Here are some attempts to define values throughout the years:

- "A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of action." (Kluckhohn, 1951, p. 395)
- "The term 'value' is employed to refer to the tendencies or dispositions of living beings to prefer one kind of object rather than another. ('Object' in this connection signifies whatever can be preferred to something else; physical things, persons,

colors, emotions, images, thoughts, symbols, forms of physical activity, can all be objects in this sense.)" (Morris, 1956, p. 10)

- "Anything good or bad is a value. (…) the term 'values' may refer to interests, pleasures, likes, preferences, duties, moral obligations, desires, wants, needs, aversions and attractions, and many other modalities of selective orientation." (Pepper, 1958, p. 7)
- "A value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. A value system is an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance." (Rokeach, 1973, p. 5)
- "(…) desirable, trans-situational goals that vary in importance and serve as guiding principles in people's lives" (...) "values represent, in the form of conscious goals, responses to three universal requirements with which all individuals and societies must cope: needs of individuals as biological organisms, requisites of coordinated social interaction, and requirements for the smooth functioning and survival of groups." (Schwartz, 1994, p. 21)
- "(…) affectively laden beliefs concerning the rightness and wrongness of behaviors or end states which are intrinsically potentially harmful and are universal and unalterable in their prescriptivity." (Berkowitz, 1997, p. 18)

In literature, apart from the ambiguity in defining values, there are also some critical debates which are difficult to answer. For instance, some theorists believe that there are a few *universal values* that could even fit in a list, while others – which tend to be called *relativists*- claim that valuing is personal, and therefore, a matter of subjectivity. *What is certain is that values do exist in our lives.* As very accurately remarked by Oyserman (2015), we know that values exist due to individual testimony (when people say what values hold), due to our behavioral choices, and due to the socio-cultural structures and the social interchange (what is praised or punished, how conflict occurs, and generally what is socially valued)[4]. Every day we make decisions according to our values; what we eat, what books we read, what and where we buy from, to which school we choose

[4] More precisely, "cultural products can be seen as concrete residues of value-based choices", as well as the "expenditure of resources, time, energy and structuring of the natural environment". (Oyserman, 2015, p. 39).

for our kids, where we work, what we vote, which friends we have, and whether we forgive or not. Similarly, in an organized society, the rules, the law, the social activities and the interpersonal relations are all set, based on some values. *Values define what matters to our lives and to our societies, and become concreted through our daily activities and judgments; they are the principles guiding them.* Most importantly, ***values have common features***. Bilsky and Schwarz (1987), through a survey on the definitions of values by many theorists, conclude that all values have *five common features*, independent of their content. These features can be summarized here: "Values (a) are concepts or beliefs, (b) are about desirable end states or behaviors, (c) transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance" (p. 551).

In the following paragraphs, I attempt to approach the meaning of values by looking for these common denominators instead of a clear definition. Hence, I describe each of them, including some significant conclusions from relevant multidisciplinary research. Finally, besides these five common features of values, I describe *one additional feature of values* that accrued from my own research on the values literature.

Values are beliefs. But they are beliefs tied inextricably to emotion, not objective, cold ideas. These beliefs play a significant role in forming our personality and our self-concept. However, apart from cognition, valuing involves feeling as well (Berkowitz & Grych, 1998; Hoffman, 1982; Kohlberg, 1976; Piaget, 1981; Samay, 1986). This strong affective component of values is emphasized by the claim that in some cases people are ready even to sacrifice their lives for their values (Oyserman, 2015). The problem that arises though is that as feelings values can also be related to immoral behaviors. Thus, it is “the object of the belief not the emotional charge of the belief that gives it moral focus” (Pandey, 2005, p. 148).

Values are a motivational construct. They refer to the desirable goals people strive to attain. On these grounds, Schwartz (1992) attempted to categorize values based on the motivational goal that they express. To do this, he applied a bipolar structure with two basic dimensions: ‘openness to change versus conservation’ and ‘self-transcendence versus self-enhancement’ (p.42). The different motivational values are: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security (Bilsky, Munster, & Schwartz, 1994; Schwartz, 1996). By using Schwartz’s theory it is possible to classify virtually all values from

different cultures into one of these ten motivationally distinct categories (Schwartz, 2006). This study proves that values are definitely motivational constructs.

In a later work (2005) and through the instrument developed for measuring values (SVS), Schwartz confirms the linkage of one's values to one's desirable ends, as well as to the ways with which one can achieve these ends. More specifically, he conceptualizes values both as ultimate goals and as modes of conduct in order to attain these goals. These *two distinct forms of ends* are very often encountered in literature and can be traced back to the ancient writings of Aristotle [384–322 B.C.E.]. There are *instrumental ends* described as acts that are done as a means to an end, and *intrinsic (or terminal) ends* that are done for their own sake. Aristotle recognized that all action leads to some end. For him, the highest good of human beings, which is an end sufficient in itself and not as a means to another end, is happiness (Aristotle, Ross, & Brown, 2009). In line with the above distinction, Rokeach (1973) also refers to *two fundamental types of values*, namely 'preferable modes of conduct or end-states of existence' (Rokeach, 1973, p. 5). Values, however, *differ from goals*. As Oyserman explains (2015), 'values provide a general rationale for more specific goals and motivate attainment of goals through particular methods' (p. 38).

Values transcend specific actions and situations; they are abstract goals. While concepts like norms and attitudes usually refer directly to specific actions, objects and situations, values are more abstract in nature, relating more to the general aims and deeper meaning of the actions. From early on, researchers revealed that values are associated with the formation of attitudes and the evocation of actions in accordance with people's beliefs (Bardi & Schwartz, 2003; Eagly Alice & Shelly, 1995; Verplanken & Holland, 2002). This connection between values and behavior is vitally important. Berkowitz (1997) believed that the ultimate goal of moral education is behavioral. For this reason, most criticism on moral-educational models focuses on their inability to influence behavior. However, the association between values and behavior is not easy to study and, even nowadays, there is a lack of meaningful research upon which to base valid conclusions.

Values literature tends to focus on the conditions under which values can influence behavior and be 'seen' in action. According to Verplanken and Holland (2002), values are related to the attractiveness of the behavioral outcomes, and this is how they influence choice and behavior. However, only when values are activated, consciously or

not, and only when these values are central and part of one's self-identity, do they motivate one to act and influence behavior. Similar findings are supported by Schwartz (2006) as well.

An alternative research approach was developed by Rokeach and his colleagues (Rokeach & McLellan, 1972; Rokeach, 1971; Rokeach & Cochkane, 1972). Rokeach worked on building a functional relation between values and behavior by introducing a technique of value change called 'self-confrontation'. Self-confrontation may occur by presenting information that makes people aware of inconsistencies between stated values and their behaviors and can lead to a reconsideration of their values. This method has proven effective in changing a number of attitudes and behaviors, such as decreasing racist attitudes, losing weight, quitting smoking, and so on. It might also cause significant changes in the priorities of the values underlying people's behaviors.

Additional studies on the relationship between values, attitudes and behaviors (e.g. Eyal, Sagristano, Trope, Liberman, & Chaiken, 2009; Kristiansen & Hotte, 1996; Maio & Olson, 2011) hold that this relationship is often influenced by self-concept, moral development and moral orientation variables, as well as personal norms, preferences, culture, emotion and group pressure. There is also a substantial body of literature demonstrating a significant relationship between moral behavior and the capacity for moral reasoning (as e.g. Bandura, 2014; Blasi, 1980; Kohlberg & Candee, 1984; Rest, 1980).

Values guide the selection or evaluation of actions, policies, people and events. That is, values serve as standards or criteria. This view is advocated in the following statement: "Implicitly or explicitly we evaluate or assign value to everything—regarding things as good or bad, a truth or falsity, a virtue or a vice. How do we know? One important means is through values. Values can be thought of as priorities, internal compasses or spring-boards for action - moral imperatives. In this way, values or morals are implicit or explicit guides for action, general scripts framing what is sought after and what is to be avoided" (Oyserman, 2015, p. 37). Hence, values can serve as criteria for selecting, evaluating and taking a stance on various issues. Furthermore, there is the well studied reasoning based on values, which will be extensively analyzed in the theoretical part of this dissertation (Kohlberg, 1975; Piaget, 1932).

Values are ordered by importance relative to one another. People's values form an ordered system of value priorities, which plays a significant role in their choices.

This hierarchical feature of values also distinguishes values from norms and attitudes. Schwarz (2006) accurately states: "Each of us holds numerous values with varying degrees of importance. A particular value may be very important to one person, but unimportant to another" (p. 1). The priority of one's values is what makes their value system. The priorities might change, or create moral conflicts, especially when one has to choose one value over another. It is also noteworthy that the mode of organizing a system of values varies from one culture to another. This difference in cultural values explains the misunderstanding that prevails between peoples belonging to different cultures.

Values are socially and culturally enforced. This attribute is an addition by the author of this dissertation and is based on valid arguments found in recent relevant research. When something, a belief, an object or behavior is worthy, it is commonly termed a value. Yet, what is worthy to an individual is a result of both the individual's own valuing and additional social and cultural influences. Hence, values, apart from individual traits, are also social agreements defining what is right or wrong for the society. "At the individual level (...) values are an internalisation of sociocultural goals that provide a means of self-regulation of impulses that would otherwise bring individuals into conflict with the needs of the groups and structures within which they live. Thus, discussion of values is intimately tied to social life. At the group level, values are scripts or cultural ideals held in common by members of a group; the group's 'social mind'" (Oyserman, 2015, p. 39).

Notably values, as cultural moral ideals, are essential to characterize a social system, as well as reproduce it. For example, capitalism encourages certain social and personal values, which are continuously promoted by the system to prevail in time. Consequently, *systemic change basically means the change of its core values.*

The connection between values and social factors has been also noted by Schwartz and Bilsky (1987), contending that values represent *three universal requirements of human existence;* biological needs, interactional requirements for interpersonal coordination, and societal demands for group welfare and survival (Schwartz & Bilsky, 1987, p.1). Based on empirical findings, Schwartz made a distinction between *two generic kinds of values*; 'conformity values', which entail subordination to people from one's frequent and close circles –family, teachers, etc., and 'traditional values', which entail subordination to abstract ideas –religious and cultural customs (Schwartz, 1992, p. 9–10). Significantly related to this are also discussions of the so-called social-cognitive

theorists, who point out distinctions between *three domains of social knowledge and judgment*: moral, social-conventional and personal. The moral domain addresses 'issues of universal prescriptivity' due to the intrinsic nature of the issues. The social-conventions domain concerns issues that are considered moral because of social agreements. The personal domain includes individual preferences (Pandey, 2005, p. 236). Finally, cross-cultural aspects are increasingly central to values discussion. This is usually about documenting values and value changes in large multinational studies, as well as the process of socialization.

Considering all the above characteristics, it is evident that v*alues cut across many aspects of human thought, emotion and activity, while involving both the individual and the society.* This pervasiveness is perhaps what makes it difficult to identify, give an accurate definition and study values. However, it is clear that values exist, embodied in the actions of groups and individuals, revealing their thoughts, beliefs, priorities and goals.

1.2.3. Values in G4Cs

The current work is an attempt to study values in G4Cs, based on the assumption that *G4Cs have a closer connection to values than other games*. G4Cs are rooted in the social problems they address. They are connected with the moral objectives of the games and, finally, they are inherent in the educational process of the game teaching values. Below I explain this distinct connection of G4Cs with values more explicitly, while also referring to the increased moral challenges of G4Cs' designers.

The content of G4Cs is values-related. The societal problems addressed by G4Cs are directly connected to values. Environmental issues, social matters and political actions, as well as personal life choices and self-development, are based on facts and are grounded in personal and societal values. In fact, even perceiving a situation as problematic implies values. Designers of G4Cs thus, are inevitably confronted with these matters and are called to make design choices. For example, the designer has to select the values related to a particular social problem, and tries to predict how these values promoted in the game might be interpreted by the players. The current study intends to provide helpful insights for designing the moral content of the game, and for addressing these questions in a conscientious way.

The objectives of G4Cs are moral. G4Cs aim to make the players aware of a critical moral issue, to reflect and be critical, or to take action for a cause. Design decisions to

'change' a person's beliefs and attitudes, and improve their life or society as a whole, have apparently significant moral implications. Designers, therefore, need to be conscientious about their moral intentions, not only regarding the players' ethical experiences during play, but also regarding the moral influence on players in their real lives. Moreover, apart from the objectives set for players individually, the game's intended societal impact needs to be clarified. This research aims to facilitate designers in clarifying their moral aims, and attempts to reveal the moral implications of particular game design decisions.

The educational process of the game reflects values. Since cultivating awareness is presumed to be an educational process, as in any educational process, values are embedded in the process itself. It is essential, therefore, when studying the values in the design of G4Cs, to also take these values into consideration. For instance, a journalist aiming to increase awareness about a social conflict through social media can do so in different ways. For example, they could express their own personal viewpoint or present opposing views; be neutral or judgmental, elaborate on the reasoning behind their views or not, evoke empathy or anger, call for a particular action or not, call upon readers to express their own thoughts on the matter and start a discussion, or administer an online poll. Each approach embodies its own ethical values. Similarly, a game designer has diverse ways for building awareness, each of them with its own ethics, which provides different ethical experiences for the players. This aspect is missing from the previous relevant studies.

I present the following example to help the reader better understand the distinct relationship between G4Cs and values.

An example of values in the design of G4Cs: *Against All Odds*

Against All Odds (UNHCR, 2015) is an online G4C that aims at showing the plight of political refugees. The game starts with the avatar of the player being interrogated by the regime as a suspect for dissenting opinions. In this process, the player is confronted with 10 statements, to which the response can either be 'yes' or 'no'. For example, would the player give up his/her right to vote, to travel, or to speak and write in her own language? Or, would she state that homosexuality is a crime? In the event that the player's answers do not agree with the 'interests of the country', the player's avatar is brutally beaten by a police officer. Soon the player realizes that the only way to pass this stage of the game is by answering all the questions according to the regime's

values. This is not easy, as some values are central to one's life and cannot be negotiated. Finally, the player is asked to confirm their good treatment by the police. The player is called to a new interrogation in 48 hours. During this time, she has the choice to flee the country. If players decide to flee, then they need to pack before the secret police arrives. Selecting what to take as luggage within 2 minutes is a task also related to values. Should the player get the family photos or rather search for their passport in this little time? Later, the players will again need to prioritize their belongings due their excess weight and, in the end, get rid of the whole bag in order to carry food and water.

On the way to cross border new dilemmas arise for the player, such as whether to carry an injured friend on their back or not. Once again the player reflects on values and uses them as decision criteria for deciding. Further on in the neighboring country, the player is confronted with diverse the local's views on refugees; some of them want to help while others tell the player to go home, call the police or attack them. This point in the game helps one realize how values differ from person to person, and how values can be socially and culturally molded through prejudice. Furthermore, it is apparent how values as beliefs can directly guide the behavior of people and have real effects on other people' lives.

All the above demonstrate that values are present in every step of the game, and embedded both in the content and the mechanics of the game. Moreover, values in this game have all these features: they are concepts or beliefs; they are about desirable end states or behaviors; they transcend specific situations; they guide selection or evaluation of behavior and events; they are ordered by relative importance; they are socially and culturally enforced

In addition, the game has a moral aim. *Against All Odds* offers players the experience of being a refugee. Players experience the difficulties of staying in their own country, the multiple dangers of fleeing, as well as the refugee's effort to make a living, even temporarily, in a new place/country. The game not only attempts to increase awareness about the refugee problem and generate tolerance and understanding, but it also encourages players to think critically and act in real life, in ways that help refugees and reduce refugee crisis situations. These values, derived from the objectives of the game, are very similar to the objectives of values education.

1.2.4. Values Education

The field of values education has a long history. As argued by Althof and Berkowitz (2006), the field 'has existed as long as humans have thought about how to raise each subsequent generation' (Althof & Berkowitz, 2006, p. 469). Thus, t*he history of VE is as long as the history of education itself.* Both education and values education have evolved as a societal practice. Although originally the educational and moral setting was provided by the family and the society through cohabitation and the co-living, since the 19th century education has become a more elaborate practice, with schooling by professional educators[5].VE is now a promising and developing field of academic study and pedagogical practice, spanning a number of disciplines, most notably philosophy, psychology and sociology. The principal question to be addressed here concerns the objectives of values education: What are the reasons for teaching values? What is VE needed for?

According to Sternberg and his colleagues (Sternberg, 2001; Sternberg, Jarvin, & Reznitskaya, 2008), the goal of school education should not just be to impart knowledge, but in addition to help students use this knowledge wisely. Sternberg asserts that issues pertaining to what *can* be done are related to knowledge, while issues relating to what *should* be done are related to ethics and values, because knowledge can be used for both good and bad ends. This dual role of education – to help people become 'smart' as well as 'good' - is prominent in the educational literature: 'We must help children acquire the skills, the attitudes and the dispositions that will help them live well, and that will enable the common good to flourish. For schools and teachers to do only half the job puts the individual child and all the rest of us in danger.' (Ryan, 1986, p. 233)

A second noteworthy point of Sternberg and his colleagues (Sternberg, 2001; Sternberg et al., 2008) is that the teaching of 'wise thinking skills' has always been implicit in school curricula. For instance, teaching history is about learning from the past in order not to repeat the same mistakes. Teaching literature is about applying the lessons of the characters to our own life. In short, *education cannot be neutral and free of values; it is always subjected to some values.* The selection of what knowledge to teach, or the

[5] This does not mean that the moral dimension of the family and societal connections with other families, communities and peers are undermined; these are still the main foundation of moral development of the individual.

educational goals and the teaching methods, are all related to values. This view that teaching is an inherently moral endeavor is held by many authors (Hansen, 2001; Higgins, 1995; Momeyer, 1979). One more argument supporting this view is that education helps students to construct their identity and socialize, in order to function in society. Hence, the intention to develop values in students derives from the very 'pedagogical' task of education (Veugelers, 1996). Or, just from the fact that teaching is a 'moral activity', a 'human action undertaken in regards to other human beings' (Peters, 2003, p. 23). Therefore, ethical considerations of what is fair and virtuous are definitely present. This is a useful remark for this project.

The questions that arise though are the following: Since any kind of education embodies values, what does the field of VE actually stand for? Which are the particular objectives of VE? As illustrated above, education has moral implications; however most of them are unintentional. The difference is that VE refers to the: 'deliberate teaching of particular values, attitudes and dispositions to stimulate the prosocial and moral development of students' (Schuitema, Dam, & Veugelers, 2008, p. 2).Or, as stated by Kirschenbaum (1995), VE is: *'the conscious attempt to help others acquire the knowledge, skills, attitudes and values that contribute to more personally satisfying and socially constructive lives'* (Kirschenbaum, 1995, p. 14).

In conclusion, *VE refers only to educational endeavors with particular moral objectives.* Therefore, VE should not be confused with other educational attempts, which might still convey values, but unintentionally. This difference is similar to the difference between G4Cs and other games. G4Cs are designed to bring about moral change, whereas in other games values are always present unintentionally.

The particular objectives of VE can be summarized as follows: either the 'personal development and welfare', which means to stimulate the students' 'identity-development', or/and 'enhancing the prosocial and moral development of students', contributing in this way 'to the quality of society' (Schuitema et al., 2008, p.3). These two objectives are evident in almost all VE literature. Here is one more definition of VE that confirms this dual aim: 'Moral education is what the schools do to help the young become ethically mature adults, capable of moral thought and action. (...) They develop conceptions of what being a good person entails. They learn what their obligations are (if any) to the group and to the larger society. They acquire a sense of their rights as individuals' (Ryan, 1986, p. 228).

The very objectives of VE can be compared to the objectives of G4Cs. G4Cs aim to stimulate players' moral thinking and make them more conscious regarding their beliefs and moral actions in real life, as individuals and social beings. More specifically, players are expected to attain self-awareness, to reflect on their duties and rights as members of society, and to acquire skills for dealing better with personal, social or environmental problems. Concluding, t*he objectives of G4Cs seem to be identical to the objectives of VE*. Rightfully then one can claim that *G4Cs aim to morally educate players*.

Still, if one looks carefully at the above definitions of VE, some goals seem quite abstract; what do the terms 'good person', 'personal welfare' and 'socially constructive lives' mean exactly? The answers to these questions would indicate what consistent moral education means. *What are the criteria for the identification of a moral person, or an exemplary moral society?*

Throughout the years, different approaches have been developed for teaching values. Each of these VE approaches interprets the above terms differently and has different philosophical views on the criteria of a moral person and a moral society. That is to say, *the particular objectives of each VE approach differ*. For instance, a moral person could either be considered someone loyal to the law, or someone who always acts with legitimate moral reasoning, regardless of the legality of her actions. Similarly, an ideal moral society could consist of members obeying specific rigid moral rules, or a society that tolerates differences believing that everything is relative. In these aspects, the differences between the various VE approaches are crucial.

As the moral objectives differ among the diverse VE approaches, *the educational methods for achieving the desired outcome also differ.* To train students in recycling, the educator might use e.g. exemplary behaviors. This is very different from teaching them to think on complex moral issues, such as the refugee crisis. In this case, the educator might try to foster players' empathy, or develop their moral reasoning. Similarly, ordering students in a class to stop bullying because they will be punished is very different from putting them in the position of the victim who is bullied, or asking them to imagine a world based on difference and respect. Obviously, each of these practices has *its own ethics and values*. Ultimately, all these aspects are key aspects when talking about VE.

This project will examine three diverse VE approaches, with different objectives, practices and philosophical grounds; character education, moral development and values

clarification. The question is whether these VE approaches can provide useful insights for understanding how values can be taught through G4Cs, as well for designing G4Cs.

1.2.5. VE and G4Cs; towards the conscientious design of G4Cs and the consistent moral education of players

VE theories can be enlightening for understanding and even for designing G4Cs. The main question being: can we design "better" G4Cs and what would this mean? This research attempts to address this and states that: *the ultimate aim is twofold; a more conscientious design of G4Cs and a more consistent moral education of the players.* This is what drives and gives meaning to the analysis, the critique and the design of G4Cs. The above terms are briefly explained below.

The term 'conscientious designer' was first introduced by Mary Flanagan & Helen Nissenbaum in their book 'Values at Play' (2014): 'Conscientious designers consider values when they design and build systems. They often have a passion for learning, a deep curiosity about the world, and a fascination with human behavior. This passion is expressed in well-thought-through design. (...) If you are interested in taking values seriously in design, you are a conscientious designer.' (p.12). Evidently, this term is closely associated with my research topic and therefore has been forthrightly adopted, with the difference though, that it addresses the design of G4Cs. Conscientious designers of G4Cs apart from considering social and political values in their design, have an additional concern; they are also involved in designing the education of players with these values towards some moral end. *Thus, a* ***conscientious designer of G4Cs*** *is a designer who considers values seriously in her design and has ethical*[6] *intentions regarding the players' moral learning experience.*

That is to say, a conscientious G4Cs' designer is expected to be vigilant regarding the following aspects: a) the social and political values on the design agenda, b) the design techniques for teaching values to the players, and finally, c) the personal and societal moral change aimed at by the design. All these aspects reflect ethics and have moral implications that need to be considered in the design, the analysis and the assessment of G4Cs. This study attempts to help designers of G4Cs to get a deeper understanding of

[6] As emphasized above, by 'ethical' I do not refer to any established ethical standards to which the designer must adhere.

the above aspects and provides ways to coordinate them according to their moral intentions.

Providing G4Cs players with ***consistent moral education*** could also be phrased as an effort to provide them with 'consistent moral awareness', or 'consistent moral impact'. Interestingly, the meaning of all these terms is easy to grasp intuitively, but it is extremely difficult to provide a precise and complete definition of them. In the way that, for example, it is difficult to describe what a 'moral person' is, or an environmentally, or politically, 'aware' society looks. Thus, to define these terms for the purposes of my study, I appealed to the concept of ***the quality without a name***[7](Alexander, 1979).The quality without a name is a positive feeling that exists, but cannot be easily described. It can be experienced and is comprehensible to all. This quality actually consists of particularly significant elements that need to be combined to articulate the whole.

The VE theories studied here hold dissimilar assumptions about what constitutes moral education, or a moral person, and which are the best practices for achieving it. The behaviorist approach, for instance, claims that there are particular character traits that need to be adopted by people. While the cognitive approach argues for particular stages that people need to go through to develop their morality. Education can help people move through the stages, while the ultimate goal is universal democracy, care and justice. The constructivist approach, finally, supports that education needs to help people clarify their own values, in order to make them more purposeful and happy. The inquiry of this research is to investigate whether these diverse VE approaches are encountered as well in the design of games teaching values, and whether this knowledge can facilitate the understanding and/or the conscientious design of G4Cs.

1.3. Research Questions

This research is based on the premise that the actual aim of G4Cs is the moral education of the players. Thus, the main inquiry of this project is to explore *whether the traditional field of VE can provide a better understanding of G4Cs*. In the field of VE there have been different approaches for teaching values, each one with distinct objectives and sets of strategies, indicating different ways that VE can be designed and

[7] The term was firstly introduced by Alexander (1979) on architectural design.

practiced. The inquiry of this research is to investigate whether these traditional visions of moral education are encountered in the design of G4Cs and, how the field of game analysis and/or game design could profit from this knowledge. Therefore, the research questions are the following:

- *Can the traditional field of VE and the diverse approaches of character education, moral development and values clarification, provide a better understanding of the moral education in G4Cs?*
- *Can the traditional field of VE provide helpful insights for the conscientious design of G4Cs and the consistent moral education of players?*

This exploratory research seeks to provide moral counseling for designers, in order to help them address the increased moral challenges of G4Cs. This moral guidance, as described above, has a dual aim: *to contribute towards the consistent moral education of players, and to make the design of G4Cs more conscientious.* This means to help game designers clarify their moral-educational goals regarding the 'change' they want to bring about, as well as their design decisions to meet these goals. The acknowledgment of the inherent biases and the implications of the designers' choices are important for the conscientious design of G4Cs, as well as the role that should be assigned to the players in this process of moral education. Along with theoretical moral guidance, this project intends to provide *mainly practical guidance for the designers of G4Cs* and other stakeholders involved in the design of games teaching values.

All these design aspects of a moral nature have not been systematically and adequately studied so far. Yet, they are crucial for the ethics of G4Cs and, most importantly, for the moral impact of these games. This research is an attempt to gain insight into the above moral concerns by studying the different interpretations, philosophical grounds and practical solutions provided by each of the traditional VE approaches. The critique of each VE approach is expected to be an equally important resource.

As this is an exploratory research study, it does not aim to provide final and conclusive answers to all the above research inquiries. Rather it explores the topic in depth and forms the basis for more conclusive research. It also generates new ideas and assumptions with the possibility to develop provisional theories and hypotheses.

1.4. State of the Art of value-oriented design in digital media

This chapter intends to review previous work *on value-oriented design in digital media*, in order to establish the importance of the topic to the discipline, as well as for the society. After a brief review on the most significant research concerns throughout the years, I focus particularly on the recent studies on values and digital games. Referring to the state-of-the-art will help me acknowledge what is already known, identify inadequacies, and establish the context, the purpose and the significance of my study.

1.4.1. Value-oriented design in Technology and in Digital Media

> *'We are surrounded by the wondrous effects of machines and are encouraged to ignore the ideas embedded in them. Which means we become blind to the ideological meaning of our technologies.' (Postman, 1992, p. 94)*

Values are the abstract expression of our life practices, socially and individually. Each element of an activity-system; persons, their bodies, means and objects incorporate and stand for those values. A chair, for instance, is designed to provide comfort; it is ergonomic and some chairs can be even adjusted to the height of the person using them. A chair could also add aesthetic value by being beautiful and trendy, or it could swivel around and move with casters to facilitate movement in space. Extensive use of the chair, however, could be harmful to a wooden floor, which might appear to be a conflict in values. Hence, the context of use, as well as the users of the designed object, also gives value to it. As this shows, all technology designed, from tools and machines to digital media, is not value neutral. *Technologies have moral biases and implications for both our individual lives and societies.* This premise has been the starting point of all theoretical and conceptual foundations around values and technology design in the last decades.

Early interest in the biases of technology emerged in the work of Mumford (1934) and Wiener (1954), the founder of cybernetics. Those days, the criticism of technology had a tendency to be harsh and abstract, denouncing 'technology' itself and its impact on society and culture. For example, the concept of the 'one-dimensional man' (Marcuse, 1964), the 'mass-rule' (Jaspers, 1931) and the 'domination of nature' (Heidegger, 1977). Over time, however, reflection on technology has sought closer contact with technologies themselves, bringing new ethical issues into focus. In the 1970's, Joseph Weizenbaum, working on the program 'Eliza', drew significant conclusions about the

ethics of artificial intelligence. From this point, a significant body of work concerned with technology and social issues has emerged (Kling, 1980; Latour, 1992; Winner, 1986). Applied fields specializing in ethics have come into being, and the concern that technologies tend to promote certain values while obscuring others, has been extended into numerous questions, depending on the applied field. Meanwhile, the ethics of technology have started to reflect on the very design of technologies.

Media ecology, for example, has surfaced as an approach to explore the biases of technology, focusing on media technologies (Eisenstein, 1979; Ellul, 1964; Innis, 1951; McLuhan, 1962; along with Mumford, 1934; and Postman, 1992, mentioned above). The fundamental goal of media ecology is to understand how the forms and biases of communication media construct our environment and impact our everyday lives. In addition, to explore how these biases are implicated in the technologies, and which are their social, economic, political, epistemological and cultural consequences. More recent scholarships in media ecology focus on the ecological impact of new digital media technology (Levinson, 1997; Manovich, 2001; Turkle, 1995).

Moreover, there is an increasing interest of the *HCI community* in accounting for human values in the design of computer systems. Numerous researchers have focused, for example, on the value of privacy (Ackerman & Cranor, 1999; Agre, 1997; Fuchs, 1999; Jancke, Venolia, Grudin, Cadiz, & Gupta, n.d.; Nissenbaum, 1998; Tang, 1997), cooperation (Druin, 1999), ownership and property (Lipinski & Britz, 2000), physical welfare (Leveson, 1991), freedom from bias (Friedman & Nissenbaum, 1996), universal usability (Shneiderman, 2000; Thomas, 1997), autonomy (Friedman & Nissenbaum, 1997; Suchman, 1994; Winograd, 1994), informed consent (Friedman, Howe, & Felten, 2002; Millett, Friedman, & Felten, 2001), trust (Fogg & Tseng, 1999; Friedman, Kahn, & Howe, 2000; Nissenbaum, 2001; Palen & Grudin, 2002; Rocco, 1998; Zheng, Bos, Olson, & Olson, 2001), and democracy (Sclove, 1995). The problem, however, with the above efforts is that they tend to focus on a single value at a time. They also mainly address functional and instrumental values, rather than values of ethical import.

Along similar lines, Friedman's *Value Sensitive Design (VSD)*(Friedman, 1996, 1999; Friedman & Kahn, 2002) is a methodology that uses conceptual, empirical and technical investigation to identify and address moral values in software systems. However, VSD adopts a different perspective. The primary goal of this emerging discipline is 'to affect the design of technology to take account of *human values during the conception and design process, rather than merely retrofit them after completion'* (Zimmer, 2005, p. 8).

This is a difference with the approaches of media ecology, as the latter are mainly apt for assessing and evaluating historical and current media technologies. According to the VSD theory, as technology shapes society it is also shaped by social influences. Value biases, therefore, are perceived neither as solely embedded in technologies, nor as simply determined by society. Rather they depend on the actual use of the technology, which can also change with time. Friedman (1996) particularly argues that especially in the design of digital technology, neglecting moral values would be significantly harmful. Complex interactive systems connecting humans and technology should be designed with the proactive consideration of the values, and especially the possibility of users taking part in the formation of the system's values.

The main advocate of accounting for values in HCI is Cockton (2004, 2006), supporting that *HCI actually needs to be redefined with a focus on values*; to help designers understand technology design as a process of delivering value. Cockton (2004) suggested a framework named *Value-Centered Design;* 'Traditional disciplines have delivered truth. The goal of HCI is to deliver value. (…) Innovation, quality and fit are worthless if they do not deliver value. (…) HCI is at a unique point in its history. (...) HCI may not be forced to deal with radically new technologies for several years. It should take advantage of this and renew itself. To do so, it needs to look beyond computing, psychology and sociology to a design movement that seeks value above all else' (p. 149).According to Value-Centered Design, the existing HCI components of design guidance, i.e. 'quality in use' and 'fit to context', need to be reshaped for delivering intended values. In this approach, values are not considered only the profits and the sales, but any political, cultural, personal or organizational values defined by the system's stakeholders. It should be noted though, that although HCI should place value at the heart of its endeavors, it cannot deliver value as an objective applied science. Rather it needs to focus on subjective value[8], which can be delivered with the contribution of other related disciplines, such as computing, sociology and psychology.

Beyond HCI, social researchers have also worked on understanding how technologies emerge in society. *Social Shaping of Technology* (SST) asserts that "the design and implementation of technology are patterned by a range of 'social' and 'economic'

[8] As Cockton puts it: 'We need to embrace the paradox that we can only become effective, systematic and consistent by applying objectivity in the service of subjectivity'(2004, p. 158).

factors as well as narrowly 'technical considerations' (Williams & Edge, 1996, p. 865). Consequently, in this regard, SST is similar to VSD as they both emphasize the interplay between the development of a technology and the societal context that gives rise to and uses this technology. It is important at this point to also refer to the work of Sellen et al. on '*Reflecting Human Values in the Digital Age*' (Sellen, Rogers, Harper, & Rodden, 2009), propounding the view that the greatest present challenge in the design of technology is the explicit consideration of values. The argument is that, nowadays, we do not just use technology, but we literally live with it. While there is a broad set of factors that have changed the interaction between people and computers; from emotion, sociability and human values to issues of scalability, security and performance. As interactions have included new dimensions, thus, *technology cannot be addressed only as being task-oriented.* This conclusion is reinforced by several more recent studies. Bannon (2011), for example, claimed that: 'The area of concern (in HCI) is much broader than the simple 'fit' between people and technology to improve productivity (...); it encompasses a much more challenging territory that includes the goals and activities of people, their values, and the tools and environments that help shape their everyday lives' (p. 50).

Additionally, Knobel and Bowker (2011) focus on *accounting for values as a critical component in the design process*, asserting that especially regarding information technologies, it is needed 'as disasters needing management'. They also observe that the conversations and the analysis of the values in technologies usually occur after their design and launch. This makes them highly concerned that most users are faced with undecipherable decisions previously made on their behalf, often not to their benefit. Therefore, they introduce a new field called *Values in Design* (VID) in order to understand values and technology in the early stages of design.

Another recent work exploring the ethical dimensions of digital media is *Digital Media Ethics* (Ess, 2009)*,* which investigates many novel ethical challenges, apparent risks and dangers of digital media, e.g. issues of privacy, cross-cultural online communication and violence in games. The author introduces some ethical frameworks for analyzing and resolving ethical difficulties, such as utilitarianism, deontology, ethics of care, virtue ethics and Confucian and African frameworks. What is challenging in this work is that it also involves cultural matters through the concepts of ethical relativism, absolutism and pluralism. These matters constitute concerns of this current study too.

Apart from the above studies, many other branches like engineering ethics and ethics of design aim to provide designers with vocabularies, methods and theories to understand values in technology development and make responsible decisions in their design practice. Independent of the field, they all recognize that technologies should not be evaluated or designed solely by considering their functionality, or market demand. They are not only a means for realizing human ends. Technologies, and especially digital artifacts, actively help to shape culture and society, and have ethical and value biases. This view is in line with Winner's assertion that "artifacts have politics" (Winner, 1986). That is to say, the design of digital technologies cannot be done in a vacuum of values; *digital artifacts do have morality.*

1.4.2. Value-oriented design in Digital Games

> *'All games express and embody human values. From notions of fairness to deep-seated ideas about the human condition, games provide a compelling arena where humans play out their beliefs and ideas.'*
>
> *(Flanagan & Nissenbaum, 2014, p. 3)*

The aim of this paragraph is to present some prominent studies on values and ethics in digital games, in order to understand the current state of the art in this field, and how my own approach relates to these. These works create a solid fertile ground on which I build some basic premises and the prospect of this research. An early major work that I need to refer to is from Ian Bogost on *persuasive games* and *procedural rhetorics* (Bogost, 2007).Although this work does not clearly belong to the field of game ethics, it is much related to ethics and thus, also to my research. The claim that Bogost puts forward in his book is that computers use processes as means of representation and as an intrinsic language for expression and persuasion. Games, more specifically, express meaning through rules and interactions, in contrast with other types of media that use the interplay of text and/or images. *Procedural rhetoric* accordingly is 'the practice of using processes persuasively', of 'authoring arguments through processes', through the ways in which games are played (p. 29). *Persuasion* though (as also rhetoric), does not mean imposition of some idea or behavior through mechanical and rationalized computer processes. Rather it means the facilitation of an open discourse, in which interlocutors engage, reflect and raise objections, either via the same medium or a different one. *Persuasive games* then, are the '*videogames that mount procedural*

rhetorics effectively' (p. 46), that make arguments about how systems work in the real world to help players address this logic and make attempts to improve it, outside of the game.

One of the most significant works is also Miguel Sicart's '***The Ethics of Computer Games'*** (Sicart, 2009, p. 4); an exploration of ethical gameplay, of ethical game design, and of the moral nature of both computer games and their players. By connecting philosophical concepts and game studies, this book proposes a theoretical framework for understanding the ethics of computer games. One of the main baselines of his work is that computer games are ethical objects, with embedded values; 'they have rules guiding behavior, they create game worlds with values at play, and they relate to players who like to explore morals and actions forbidden in society' (p. 4). The most interesting concept of Sicart's work is that emplaces the player in the center; the player is recognized as an empowered ethical agent, capable of reflecting ethically about her actions in the game, about how to interpret and co-create the values of the game experience, and also about how her gameplay affects her values both inside the game and in the real world. The ***ludic hermeneutic circle*** (p. 122) is a model introduced for clarifying this process of players' interpretation of the game values and experience.

Recently, there are more studies suggesting that game design is perceived in close relationship to players, as a dynamic process determined both by the designer and the players. This study is conducted with this fundamental principle in mind. That is to say, there has been an effort that games are mainly perceived as activities, rather than as systems (Ermi & Mäyrä, 2005; Stenros & Waern, 2010). Or, according to the analysis of Grüter and colleagues (Grüter, Hajinejad, & Sheptykin, 2000), as game activities that have a double character, defined by the system and the context of play. Hence, games are firstly analyzed as systems, as "abstract rule systems with implied abstract meanings, which define possible actions" (p. 8); this analysis though has limited value. This is because when games are played, the player, by choosing actions out of the given space of possibilities, gives meaning to the abstract mechanics and "brings the system to life" (p. 8). What is therefore important is the consideration of games as play activities, in which the context matters. This research includes the players as active human actors whose freedom to practice, develop, or add their own values during gameplay matters. The view of players as ethical agents is vital when we talk about the ethics of games, and becomes even more essential in the case of G4Cs, aimed at players' moral learning.

Another state-of-the-art framework that emphasizes the ethical values as an integral part of the conception, design and development of technological artifacts, is the ***Values at Play - Integrating Social Factors into Design*** (Flanagan et al., 2005; Flanagan & Nissenbaum, 2014). This is a collaborative research project that started in 2005 and focuses exclusively on digital games. According to Flanagan and Nissenbaum, games are distinctive cultural artifacts that, like any other technologies and social practices, have values embedded in them. This work examines '*the ways that values may be enacted, denied, confronted, and manipulated – the ways that values are "at play" in games and design*' (Flanagan & Nissenbaum, 2014, p. 11). As acknowledged, these ways are complex, uncertain and diverse, involving many dimensions and interdependence. It is claimed of course that this should not discourage the study of values in game design, quite the opposite. More specifically, this work suggests a 'practical turn' in the field, motivating designers and producers, to take into account – 'alongside more typical engineering ideals' such as reliability, efficiency, performance, safety, and cost - ethical and political concerns, and values like fairness, equality and sustainability (p. 9). The project suggests the ***Values at Play (VAP) methodology***, a game methodology that helps designers incorporate social themes and values into a game design. Moreover, this work introduces the concept of the ***conscientious designer of G4Cs*;** the designer that strives to make a difference through his/her work by putting social and political values on the design agenda. Conscientious designers are expected to be 'ethical', 'truthful', 'factual' and 'alert' (p.12), while having the best intentions about the players' moral experience. For the needs of my research, the term conscientious designer has been adopted, and implies some additional concerns related to the *educational aspect of the design of G4Cs in terms of values.* Hence, *conscientious designers of G4Cs are designers who are factual and vigilant, have ethical intentions regarding the moral impact of the game, and take not only the agenda of values to be transmitted through the game seriously, but also the way these values are taught to the players.*

Additionally, the work of *Values at Play* is concerned with the ways that a game can generate meanings and values. It provides a framework, a ***game´s semantic architecture*** for helping designers to locate how games can access, represent, and foster particular values. This framework consists of 15 elements, some of which are: narrative premise

and goals, characters, actions, players' choices, rules for interaction with other players or with the environment etc. Values usually crop up not just directly from one of the above elements, but from the interactions among these elements. Based on this framework, the project also introduces a hands-on ***heuristic for values-conscious design***, in order to help the iterative process of designing; to locate the values relevant to a given project and define them within the context of the game (discovery), to translate these values into the game elements described above (implementation), and finally, to control whether the designer´s efforts to discover and implement values were successful (verification).

Another piece of work connected to my research is a collection of academic articles on game ethics, published recently in a series of books –'*Ethics and Game Design: Teaching Values through Play'* (Schrier & Gibson, 2010b)and '*Designing Games for Ethics: Models, Techniques and Frameworks'* (Schrier & Gibson, 2010a). These books include diverse works that approach the field of game ethics from various perspectives. Here, I will only refer to the articles related to the particular concerns of my research. In the chapter '*Video Games for Prosocial Learning'* (Koo & Seider, 2010), for instance, the authors attempt to merge the game design studies and three theories for prosocial learning[9]: character education, moral development[10] and care ethics. The first two theories, together with the third theory on values clarification, constitute the main tools of my study, and generally appear to have many features in common with my own research. There are other works worth considering in the above books. Hodhod and her colleagues (Hodhod, Cairns, & Kudenko, 2011) create an interactive story game to teach character education. While FitzGerald and Groff (2011), investigate, through play-testing, how the games *Diplomacy* and *Civilization IV: Colonization* teach ethics from a moral and cognitive development perspective. Also interesting is the framework developed by Freier and Saulnier (2011), in that it studies the skills of ethical thinking through the lens of the moral and social development of children and adolescents. This

[9] The authors prefer to use the umbrella term "prosocial learning" instead of values education.

[10] The theory of moral development is used in other chapters of this series as well as, e.g. in "Videogames and Moral Pedagogy: A Neo-Kohlbergian Approach" (Staines, 2010), in "Moral Development through Social Narratives and Game Design" (Vikaros & Degand, 2010), and in "Leveraging Digital Games for Moral Development in Education" (FitzGerald & Groff, 2011).

framework also aims to facilitate the classification and critique of ethics games, as well as help designers make games more "ethically engaging".

In her doctoral dissertation (2011), Schrier investigated *Fable III* (Lionhead Studios, 2010),a role-playing game (RPG), focusing on the thought processes players use when working through its ethical scenarios. The outcome of this research is a framework for conceptualizing and assessing ethical thinking in games. Schrier has also looked at large-scale RPGs and their potential to support ethical practice, focusing, however, on the ethical reasoning that emerges during gameplay. The research work of Schrier has been vastly enlightening regarding the processes of players' ethical thinking (Schrier, 2011; Schrier, Diamond, & Langendoen, 2010; Schrier, 2014a). More recently, a key framework related to ethics and games has been developed (Schrier, 2015). This framework is called ***Ethics Practice and Implementation Categorization (EPIC) Framework*** and aims to help educators choose games to use for teaching ethics, both in the classroom and in informal learning environments. The EPIC Framework is very closely related to my work, primarily because it involves the identification of distinct ethics education goals, as well as the selection of ethics education strategies to meet these goals. More precisely, this categorization framework consists of ***seven education goals*****:** -ethical awareness, emotional intelligence, care and empathy, moral reasoning, ethical reflection, character enhancement and facility with major ethics issues, and ***twelve educational strategies*** related to ethics education in games, e.g. emotion, role-playing, narrative, choices and consequences. EPIC accrues from a number of moral development, learning, and ethical decision-making models[11], including frameworks

[11] The major frameworks used, related to ethics and education, are: Kohlberg's Theory of Moral Development (see Gilligan, 1982, 1987; Kohlberg, 1969; Levitt & Aligo, 2013), Rest's Four Component Model, (see Meng, Othman, D'Silva, & Omar, 2014; Narvaez & Rest, 1995; Rest, 1986) and the Transformative Model (see Tello, Swanson, Floyd, & Caldwell, 2013) - which incorporates key elements from Bloom's Taxonomy of Learning (see Bloom, 1956; Krathwohl, 2002), Fink's Taxonomy of Significant Learning (see Fallahi, 2008; Floyd, Xu, Atkins, & Caldwell, 2013) and the Transformational Learning Model (see Merriam, 2004; Mezirow, 1991; Mezirow & Associates, 2000). The criteria used to decide which frameworks should be included are: (1) frequency of reference and citation, (2) relevance to ethics education and moral development, and (3) whether it critiques and/or incorporates one or more other relevant frameworks. Thus, the following databases were searched using search terms 'moral development framework' and 'ethics education framework': EBSCO Host (all databases) and Science Direct. Then, the two most frequently- cited frameworks were culled from the top 25

and theories associated with games and ethics[12]. Moreover, among the theories examined, EPIC explores Kohlberg's moral development theory, which is one of the three VE approaches also studied in my project.

Closely linked to my research is also the work of Zagal and his colleagues (Murphy & Zagal, 2011; Zagal, 2009; 2010; 2011). Zagal (2009, 2011) introduces the concept of *ethically notable games*, referring to the games that "provide opportunities for encouraging ethical reasoning and reflection" (Zagal, 2011, p.19) and, through case studies, develops a framework for identifying them. A further considerable contribution is the attempt to utilize and highlight the ethics of care (Murphy & Zagal, 2011) as an alternative lens for understanding ethics in games.

Finally, as my study is specifically interested in G4C, I present here some relatively early studies on this particular domain. The work of Swain (2007), based on his own experience as a designer and researcher, outlines some practices for designing games to affect social change. While Ashton (2007) investigates whether social impact games offer a form for exploring and doing cultural studies, and the opposite, how cultural studies discussions about design and user practices may be useful for understanding game design. Another relevant work (Pereira et al., 2012) attempts to present the current trends and gaps in the development of serious games for personal development, social learning and ethics (PSLE), while also creating a more detailed taxonomy in order to survey this field.

As one can conclude from the above, some recent studies have already attempted to link theories of VE to games for diverse purposes. The endeavor of this study, though, is

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most relevant (as defined according to that particular database's search engine) published journal article results as determined on June 18, 2015 (Schrier, 2015, p.398).

[12] As for the frameworks related to ethics and game, Schrier includes Sicart's theory of games (Sicart, 2009), Zagal's concept of 'Ethically Notable' games (Jose P Zagal, 2011; José P Zagal, 2009), Stevenson's classification framework for ethical games (Stevenson, 2011), and finally, the model derived from her own empirical research on ethical decision-making in games (Schrier, 2014a). The method for selecting the above approaches is described here: 'The following databases were searched using search terms "ethics education and games": EBSCO Host (all databases), ProQuest and Science Direct on June 18, 2015. Because of the newness of the field and limited amount of relevant journal article and book search results, any relevant publication's references were also searched further for related books and articles. From these relevant articles and books, a number of frameworks were culled and the following criteria were used to determine which frameworks should be included in this review: (1) relevance to ethics education, and (2) relevancy to how games and ethics intersect' (Schrier, 2015, p.400).

expected to be more thorough, while *accounting for more ethical factors related to games, exactly as G4Cs address a wide variety of real-world problems.* More precisely, this endeavor is required to be *open to a wide set of ethical values*, while also to acknowledge and include the most significant and *critical philosophical debates* (such as the question of absolutism versus ethical relativism).

Finally, what is missing from the current game design literature is *a more critical view of G4Cs*. This view seems to be encountered so far only in the fields of art, philosophy and political science. A particularly interesting example is the recent paper "*Games Against Health*" (Linehan, Harrer, Kirman, Lawson, & Carter, 2015). This work attempts to dismantle the myth around any interactive software designed to change users´ behaviors, and to convince us that this is all about an intentional neoliberal trend against users´ preferences and autonomy. Given the diversity of games addressing social and individual change, as well as their recent growth, I believe that creating a critical discourse around them would be helpful as much for the design of such games, as well as for achieving a more consistent moral awareness. My approach intends to provide this critical view, by exploring and bringing together the critique of each VE approach applied in the study.

1.5. Research design and methodology

My research is an example of basic research and - in contrast to applied research - is driven by my interest to converge two fields – values education (VE) and game design. The idea is that the diverse VE approaches can be useful for the analysis and design of games aiming to teach values. The design of the research is mainly exploratory. The phases of the research, as it has evolved, are the following;

a) *Theoretical study: Building the VEGA model;* the research starts with a *thematic analysis* of the three distinct approaches for VE. The aim is to discover the themes that give a rich description of each of the three approaches and systematize this knowledge in the form of a model. This model is a *theoretical model* that views moral education as addressed to any learners. It is developed with the analytic interest of being applied to games. However, it does not pertain yet to games. This theoretical model becomes associated with games only through the empirical study that follows.

b) *Empirical study: Using the theoretical model for game analysis;* the theoretical model is applied for an in-depth game analysis of three distinct G4Cs. Through this empirical study, the VEGA model demonstrates its applicability as a tool for game analysis focusing on players' moral education, and depending on the empirical results, it can be recognised as a meaningful tool for game analysis, or not. Accordingly, the research questions regarding the connection of VE to games teaching values can be answered.

c) *Creation of a pattern language and a preliminary library of design patterns*; after the empirical study, the project manages to generate ideas for the design of G4Cs. These ideas result in the creation of a pattern language for the conscientious design of games teaching values. A library of preliminary patterns is developed.

d) *Proof of concept*; some of the created patterns are put into practice for the redesign of the game *Epilogi In Crisis (Tramus et al., 2014)*. This is the first use of the design patterns created in this project and indicates the applicability of the patterns for the design of G4Cs. .

In the following paragraphs, I explain the research methods used for each of the above phases. As a general remark, for the structure of the argumentative thread I consulted several sources (Creswell, 2014; Ladyman, 2002), giving more attention to the methods related to game research (Lankoski & Björk, 2015). Data have been collected, reported, analyzed and interpreted, following the established standards of my discipline (Shamoo, 2009). Finally, in the setting of my study, there was no risk of harm, and participant anonymity was maintained.

1.5.1. Theoretical Study: Building the theoretical dimension of the model

The aim of this section is to build a theoretical model for the purposes of my research. This model needs to describe in a representative way the three distinct approaches for VE that I selected to focus on, i.e. character education, moral development, and values clarification. These three approaches had a significant impact on the minds of educators throughout the history of education and - comparing to the other two approaches

included in the typology developed by Superka and Johnson (1975) [13] - have influenced a series of experimental programs in schools to the point of establishing the whole schools' culture (e.g. the Just Community schools). This explains the vast volume of existing literature as well as educational material supporting each of these VE approaches.

Thus, for building the theoretical model I choose the method of thematic analysis on the VE approaches. This process of thematic analysis has 2 steps: a) identifying and analyzing the themes of each VE approach, b) analyzing the three VE approaches at a comparative level and preparing the model as an instrument for analysis in application fields, such as in digital games. These two steps of thematic analysis are done in parallel, guiding and supplementing one another.

1.5.1.1. Thematic Analysis of the VE Approaches

Thematic analysis is a foundational and widely-used method for qualitative analysis (see Boyatzis, 1998; Roulston, 2001, Holloway & Todres, 2003, Clarke & Braun, 2017); "Thematic analysis is a *method for identifying, analyzing, and reporting patterns (themes) within data* [emphasis added]. It minimally organizes and describes your data set in (rich) detail. However, it also often goes further than this, and interprets various aspects of the research topic" (Braun & Clarke, 2006, p.6). In my thematic analysis, the "*data corpus*[14] [emphasis added]" is all the literature referring to these particular VE approaches. This literature is substantial, spanning a number of disciplines and

[13] These three approaches are included in the five in total approaches to VE that compose the typology, or classification scheme (Superka D. & Johnson P, 1975). The other two approaches are: analysis and action learning.

[14] Here, I need to define a few of the terms used for this method. Data corpus refers to all data collected for my particular research project, meaning all the literature referring to the three VE approaches. While data set refers to all the data from the corpus that is being used for my particular analysis. More specifically, my data set can be identified by my particular analytic interest in some topic in the data, and my data set then becomes all instances in the corpus where that topic is referred to. Finally, as Braun & Clarke (2006) argue, "data extract refers to an individual coded chunk of data, which has been identified within, and extracted from, a data item. There will be many of these, taken from throughout the entire data set, and only a selection of these extracts will feature in the final analysis" (p. 6). Finally, data item is used to refer to each individual piece of data collected, which together make up the data set or corpus.

including opposing views from multiple disciplines. From all this vast volume of literature, my analytic interest is focused on the following topics, which identify also the *data sets* of my analysis:

- *Philosophy and principles of each approach*; main beliefs of its advocates, usually denoting the problem setting and the aims of each VE approach.
- *Educational practices*; the educational strategies recommended by each VE approach to be directly (or already) applied by educators in schools.
- *Criticism received*; vulnerabilities, controversies, risks and limits of each VE approach, derived from both advocates and opponents.

Driven by particular analytic interests that derive from the research questions, my analysis thus is focused on the above data sets. What I need to do, therefore, is to work on *each data set separately,* and provide *for each approach, a detailed account of themes responding to the following analytic questions*: a) which are the principles of each approach, b) which are the moral-educational practices of each approach, and c) which are the issues raised by the critiques of each approach? Furthermore, what I should keep in mind during the whole process of thematic analysis, is my parallel interest on *how each of these VE approaches can contribute to the consistent moral education of learners*.

What needs to be emphasized here is the significance of my role as a researcher in identifying patterns/themes, selecting which are of interest, noting them and reporting them. As it is argued by Taylor and Ussher (2001, as cited in Braun and Clarke, 2006, p.7) , "an account of themes 'emerging' or being 'discovered' is a passive account of the process of analysis, and it denies the active role the researcher always plays in identifying patterns/themes, selecting which are of interest, and reporting them to the readers".

1.5.1.2. Clear demarcation of the method

In order to ensure that the process of thematic analysis is theoretically and methodologically sound, a clear demarcation of this method is vital. Following the suggestions of Braun and Clarke (2006, p.10-13), some decisions need to be taken by the researcher before starting the analysis - or even the collection of data. In the following paragraphs, I attempt to clarify these methodological issues regarding my own approach to thematic analysis.

a) Prevalence and keyness of a theme; what counts as a theme? A theme represents some level of patterned meaning within the data set. An important question to address in terms of coding, is what counts as a pattern/theme, or what should be the 'size' of a theme, both within each data item and across the entire data set. As Braun and Clarke (2006) note, the 'keyness' of a theme "is not necessarily dependent on quantifiable measures – but in terms of whether it (the theme) captures something important in relation to the overall research question" (p. 10). In this particular analysis, I tried to be as inclusive as possible and pay attention to any remark that could be useful for representing the VE approaches and any theoretical aspect that could be potentially connected to the design and analysis of G4Cs. Furthermore, I tried to be as impartial as possible when searching for different perspectives, especially on controversial matters. This process required analysis of the authors' arguments, assessment of whether they are convincing, and a search for counter-arguments by other authors. Especially regarding the *critique* of each VE movement, many moral issues arose and needed to be tackled. In most of the cases, further investigation and critical reading has proved helpful; bringing together, comparing and evaluating the often contradictory claims of various authors resolved many difficulties. In a few cases, however, the situation was extremely complex and I needed to set limits, e.g. I decided not to include the long discussion around gender differences encountered in the study of moral development.

b) Type of analysis in relation to the data set; a rich description of the data set, or a detailed account of one particular aspect? In the case of my analysis, I am interested in a rich thematic description of my data sets and not a nuanced account of a particular aspect. Therefore, I need to provide - as much as possible - an accurate reflection of the overall content of the VE approaches, by working on the entire data sets mentioned above and examining all the relevant aspects. However, I need to mention that my thematic analysis is also related to a specific interest within the data, which is *the consistent moral education of learners.* This can be recognized as a particular 'latent' theme across the data sets, which definitely prevails in all the data sets.

c) Inductive or deductive thematic analysis? The thematic analysis of this project follows an inductive approach. This means that the themes identified are strongly linked to the data themselves (Patton, 1990) and the process of coding occurs without any pre-existing coding frame, or any analytic preconceptions that the themes need to fit to. As mentioned above, the idea is to provide an overall description of the VE approaches

d) Level at which themes are to be identified; semantic or latent level? The themes of my analysis are identified at a latent (or interpretative level) and not just at semantic (or explicit) level (Boyatzis, 1998). This means that me, as an analyst, I make an attempt to look beyond what has been just written. I examine the underlying ideas of the themes, theorize their broader meanings, assumptions and implications, and summarize them accordingly (Patton, 1990). This latent thematic analysis, in other words, involves interpretative work for the development of the themes, and "the analysis that is produced is not just description, but is already theorised" (Braun and Clarke, 2006, p.13). Based on the above decisions, I started my thematic analysis. In the next paragraphs, I outline the five phases of this methodological process.

1.5.1.3. Collection of data

The sources providing my data corpus have been front-line literature (Wallace & Wray, 2006) consisting of journal articles, books and reports of original research. Policy statements of schools, and other institutions worldwide, have also been influential. To gather information specifically about the educational VE practices, I needed to look up additional sources, like handbooks, school websites and various online education programs. My focus was on direct instructions and accounts of current educational practice. Especially, the process of collecting and going through the critique of each VE movement has been a difficult enterprise, as it was spanning a number of disciplines. Moreover, as complex moral issues arose, the interpretative work was very intense. However, the motivation was strong: to make the survey broader and more complete and the conclusions more solid.

1.5.1.4. Familiarizing with the data

After collecting the data, I immersed myself in it to the extent that I am familiar with the depth and breadth of the content. This involved a repeated reading of the data in an active and critical way - searching for meanings and identifying patterns that would be useful for the purposes of this research. I started taking notes and marking ideas for coding. Once I had done this, I began the more formal coding process.

1.5.1.5. Generating initial codes of data

In this phase, I started working separately on each data set, in order to create accounts of a) the *principles of each approach*, b) the e*ducational practices suggested by each*

approach, c) the *vulnerabilities, controversies, risks and limits of each VE approach*, derived from its criticism. Hence, I started generating some initial codes of data.

1.5.1.6. Searching for themes

In order to search for themes, I needed to go through all the collected data, while the amount of collected data was growing as the analysis progressed. Especially regarding the criticism of each VE approach, I came across many controversial moral matters as a researcher. In these cases, I had to search and go through different perspectives in the literature, which resulted in collection of new data to be coded. This process required analysis of the authors' arguments, assessment of whether they are convincing, and a search for counter-arguments by other authors.

1.5.1.7. Reviewing the themes and producing the final theoretical model

Throughout the analytic process, I was involved as an analyst to an ongoing reflexive dialogue with regards to all the above issues. Furthermore, analysis involved a constant moving back and forward between the entire data set, the coded extracts of data that I was analyzing, and the analysis of the data that I was producing.

The process of noting, reviewing and defining the themes has been an integral part of the analysis and not something that took place at the end. The purpose of this process was to build a theoretical model which then would be applied in the analysis of games. Thus, it was required to define and organize the themes in order to articulate this knowledge **within a more concrete and coherent structure** (Polit & Tatano, 2004). As it has been argued (Fulton & Krainovich-Miller, 2010), **a theoretical model can serve as a map of the study**, providing the rationale for forming further research questions and hypotheses. In addition, the research question, the purpose of the study, the literature review and the theoretical framework should all complement each other (LoBiondo-Wood, 2010). The conceptual framework of this study therefore, should be inclusive, **comprising all the fundamental elements that constitute each approach.** Yet, it should also be concise and clear, so that the knowledge can be easily accessible and comprehended when analyzing games.

Reviewing the themes was critical for the process of building the theoretical model. For instance, regarding the first data set (related to the basic moral principles of each approach), it would be more helpful for the purposes of the project to provide themes

that could describe **the three VE approaches not only in terms of the basic characteristics, but also at a comparative level, emphasizing their differential characteristics.** Thus, instead of providing different accounts for each VE approach - independent one to the others, what I discovered was that I could identify the differential characteristics of the VE approaches as basic themes. This made me discover some interesting accounts of themes.

The first step for building this model was the account of the different datasets, which are: (i) the principles, (ii) the educational practices, and (iii) the critical ethical issues raised by the assessment of each approach. Since these domains contain different types of information, they can play a different role in game analysis. Therefore I decided to work on them separately, and I divided the theoretical model into three components (VEGA-I-II-III)

After repeating the process of building the model several times, the final model has been created. The final theoretical model has been finally included in the dissertation, in the Chapter 7: Theoretical Study.

The model created by this project is used as a means to probe deeper into the research and function as a template for analyzing existing G4Cs. This is why, after building the model, I also described how the VEGA model should be applied to empirical research.

1.5.2. Empirical Study: Using the theoretical model for game analysis

1.5.2.1. Selection of games

To ensure the research is well-grounded and up-to-date, the chosen games should be *well-known, and well recognized by players, designers, and/or institutions*. G4Cs that have acquired some attention and reputation are usually those representing the most successful, popular and contemporary trends of players, designers, educators and game scholars. An added benefit of selecting popular games is that information can be easily found, from diverse sources. Indeed my selection fulfills this criterion. *Power Explorer* (Interactive Institute, 2008) has been created for the purposes of a recent research

project[15] in Sweden. The outcome of this research has been presented in the most prestigious academic conferences and has been published in peer-reviewed journals (Bang, Gustafsson, & Katzeff, 2007; Bang, Svahn, & Gustafsson, 2009; Gustafsson, Bång, & Svahn, 2009). Admittedly, when my research started, *Power Explorer* was considered one of the newest and most successful persuasive games for learning. A second game, *The Movement* (Basa e.V., 2009) has been crafted as part of a state-initiated and state-funded educational project of Germany (Project Prometheus)[16], for political education through experiential learning. The game has been awarded by the German LARP Association with the 1st prize of "Advanced RPG development" (FRED), and has also won the state-competition on learning games about right-extremism. Since then, it is continuously organized as an educational event at many sites all over Germany, with variant learning groups (high school students, university students, etc). Finally, *Urgent: Evoke* (World Bank Institute, 2010) has been created by one of the most popular G4Cs designers, Jane McGonigal, under the auspices of the World Bank Institute (WBI) with game development reaching a cost of $622.000. Web-traffic data shows high levels of international participation. *Urgent: Evoke* received 286,219 visits during its ten-week gameplay. Worldwide 19,386 people registered to play *Urgent: Evoke* and of those, 6,618 people (34%) completed at least one mission or quest. Participants included residents of 150 different countries. The country with the most players was in South Africa (1,010 people), as intended by the game producers, who organized a focused marketing campaign and arranged for South African universities to play *Urgent: Evoke* as part of their coursework. Moreover, *Urgent: Evoke* won the 2nd Annual Games for Change Awards in 2011, for its recognized excellence and direct impact.

As a second criterion, the games should ideally *address a variety of pressing moral issues, and deal with diverse challenges and moral values*. This will provide ample input to the research, ensuring richer analysis and results. Indeed, all the selected games address serious, urgent, current problems, spanning from socio-political to

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[15] In this project Interactive Institute cooperated with Smedjebackens Energi, Handelshögskolan, Svenska Energigruppen and Mobile Interaction. The project was funded by Energimyndigheten and other partners.

[16] This project has been awarded with the 3rd Prize of 'Innovative Continuing Education' (2008).

environmental issues, including hunger, poverty, water pollution, household energy consumption, right-wing extremism, economical crisis etc.

Finally, a third criterion was the use of *diverse technologies***,** to ensure that the research results will address games designed in any digital platform. For example, *Power Explorer* is a mobile game with a special sensing approach that provides real-time feedback on real energy actions at home. While *The Movement* is an adventure alternate reality game (ARG), assisted by live-action role-players (LARPers). Finally, *Urgent: Evoke* is a massively multiplayer ARG and social networking game, web- and mobile-web-based.

1.5.2.2. Data collection

The three games selected for the empirical study are distinct objects of analysis and, as such, require specific strategies of data collection.

Power Explorer was no longer available for playing[17]. Nonetheless, detailed information about the design and the gameplay of *Power Explorer* has been provided in already published academic articles based on research conducted by the designers of the game. These academic publications contain interviews of the players, important statistical data and interesting insights on both players' gameplay experiences and learning impact. Hence, I used data that had already been collected and analyzed by the game developers. Another source for retrieving data was the game's official website. All this information has proven sufficient for distinguishing the primitives of the game, how gameplay developed and its effects. Analyzing the game with the VEGA model will provide another reading of these data.

The case of *The Movement* was very different. There was limited access to the story, or the objectives of the game, due to the very nature of an ARG game[18]. Thus, in order to

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[17] Acknowledging that playing a game is the most efficient way for forming an understanding of it (Aarseth, 2001; Lankoski & Björk, 2015). I contacted the developers of the game to organize a test play. However, this was not made possible.

[18] ARGs typically avoid providing information beforehand (spoilers) about the players' stories, in order to let them play and develop naturally, without constraints. As noted in the book 'This Is Not A Game: A Guide to Alternate Reality Gaming': "In a well-designed and produced ARG, the interactions and in-game events mimic real life and don't announce themselves as elements of a game at all" (Szulborski, 2005). The first academic examination of ARG was done by Jane McGonigal(2003), who also coined the term 'This is not a game'. The Movement is still played frequently in various locations of Germany and the only relevant online sources are the

retrieve data and to make sense of the game design as an object of analysis, I needed to play the game. Hence, the data collected for the game analysis and presented here, derive from a shadowing[19] observation method on playing groups as well as on the designers' group. I took part in two different plays of *The Movement*. Firstly, I participated as a player (Laatzen-Hannover - July 2012). The data to be analyzed are mainly retrieved from this first play experience[20], as well as from discussions with the designers and the co-players. Significant data was also collected on the "reflection-day"[21] which aimed at sharing players' experiences, clarifying the learning objectives, evaluating some aspects of the game and further discussing the game topic. Later, I participated in the game as a NPC (Non-Player-Character) in order to get a deeper understanding of the design and the gameplay (Hamburg - March 2013) as well as a deeper insight of the designers' aims. This helped me to finally organize the retrieved data for the subsequent application of the VEGA model.

The data collection strategy needed to cover the gameplay in terms also of how the players developed in this context. Hence it needed a deep reading of the game. The shadowing method (Czarniawska, 2014; Mintzberg, 1970) gave me the tools to systematically extract data in relation to the environment while observing the gameplay. Each event and verbal contact must be categorized by the researcher in several ways (e.g., duration, participant, purpose). Following this method, I kept notes each time after playing the game, about the sequence of events and also about particular game instances. Since the story is very dynamic in ARGs, the two times I played were very

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game trailer (basa e.V. & Waldritter e.V., 2012), and the official web-pages of 'Waldritter e.V.' and 'Basa e.V.' containing a very short description.

[19] Shadowing is a qualitative research method (McDonald, 2005; Laurel, 2003; Cross, 2006) which involves a researcher closely following a person doing a course of action, over an extended period of time. During the shadowing, the researcher will record participants in conversations, will note each activity as it occured, as well as the body language and moods of the persons being shadowed and will write an almost continuous set of field notes. The researcher will also ask questions and will write down the answers to these questions and as much of the running commentary as is possible. "At the end of the shadowing period the researcher will have a rich, dense and comprehensive data set which gives a detailed, first hand and multidimensional picture of the role, approach, philosophy and tasks of the person being studied. These data can then be analyzed in the same way as any other qualitative data." (McDonald, 2005, p.4)

[20] It is noteworthy that in ARGs, players' actions can differ significantly from one game event to another. Although game-masters and NCPs try to follow the script, the gameplay and even the story, turn out to be different every time.

[21] The 'reflection-day' took place on the following day, after the game was over.

different. I even tried different actions each time, in order to explore what would happen. The narrative structure of the game demonstrated a smooth and meaningful continuity, which led me to the decision to describe and analyze the game as a whole. Photos were taken, and videos recorded for the purpose of situating the information. Recruitment of participants was random[22].

Lastly, in the case of *Urgent: Evoke,* I was faced with a massive multiplayer ARG that had run only once in 2009, lasting for 10 weeks. This web-based social networking game generates a huge amount of information, which is still available to the public through the game's official website, and is systematically organized into pools of data. Therefore, and in contrast to *The Movement,* I had full access to a pool of raw but organized data. The information was in the form of web-blogs from the official game's website, a discussion forum, game reports and the final evaluation report written by the World Bank Institute. This data provided a comprehensive view of the whole game and the gameplay. All in all, it showed the players' experiences, game actions and moral reflections as well as the designers' intentions for real-life changes.

1.5.2.3. Formal Game analysis

Once the data was collected, I needed a solid foundation for further analysis. Thus, I performed a ***formal game analysis*** (Munsterberg, 2009).The method of formal analysis, regardless of the field, focuses on describing the different elements that constitute every work, and the role of these elements in the whole composition. In the case of my research, the formal analysis would help me "read" the game, and then use these results to apply the theoretical VEGA model created for this purpose.

To conduct a formal analysis I needed to create a ***vocabulary***. This vocabulary had to be sufficiently expressive in order to be used for the purposes of my research, while, at the same time, limited enough to avoid the collection of superfluous data. I customize my own vocabulary by relying on the anatomy of games described by Lankoski and Björk (2015). Lankoski and Björk talk about 'primitives', as 'the basic types of building blocks of games', and provide a vocabulary containing three types of primitives: the components, the actions and the goals. This served as a basis to create the vocabulary for the purposes of my own research. The focus of my research is essentially relevant to

[22] The vents and the participants were fully organized by the designers´ team and I only chose to participate in the events scheduled near my location.

the game actions, as well as to the game goals, but not the game components. As game ***actions*** are considered all players' actions, components' actions and system actions, any of these actions designed in the game could have intended, or unintended, moral implications. ***Goals,*** on the other hand, are what players should pursue while playing the game[23], and therefore could also provide meaningful data for analyzing moral education. My study, though, is not interested in interpreting the ethical values reflected by individual components of the games, e.g. the pieces in *Tetris* (Pajitnov & Pokhilko, 1984),or the crops in *Farmville* (Zynga, 2009). I believe that this could be the subject of another study, e.g. in the field of semiotics. I thereby excluded the game components from my vocabulary.

Still, my analysis needed a broader perspective. Especially, considering the crucial role of ***narration*** in the history of teaching values, I needed to include this element. Lankoski and Björk (Pertri Lankoski & Björk, 2015) provide the possibility to extend the formal analysis and include David Bordwell's (1985) theory on narration. Drawing on this method, I augmented the vocabulary of my analysis by looking at formal game elements via concepts of filmic narrative theory. Narrative appears to be 'a contingent universal of human experience' that can be presented in many different forms, media and activities, carrying arguments and rhetoric for convincing the audience (David Bordwell, 2003, p. 3). Bordwell treats narration as the process of guiding the viewers' comprehension of the story, by shaping the most likely construal. He proposes an 'inferential model of narration': 'Instead of treating the narrative as a message to be decoded, I take it to be a representation that offers the occasion for inferential elaboration. (...) The assumption here is that regularities we find across the whole artifact allow us to make inferences about the purposes of its makers and the activities coaxed from its viewers (p. 9-10). (...) As a process, narration burrows all the way down into the material, shaping it for our uptake (p.12). (...) It controls how we build an inferential elaboration of any event. (...) all that the narration cares about is cueing us to make the right inferences' (p.16).

Narratologists have long distinguished between what constitutes the action (the state of affairs and events) in the narrative, and how this is arranged in the story in order to be

[23] Goals can be short and long term, as well as obligatory and non-obligatory (Lankoski & Björk, 2015, p. 26)

presumed (inferred, extrapolated) by the audience. Thus, although one might imagine different scenarios and interpretations, narration prompts the viewer to construct certain inferences by describing the context and calling up the appropriate schemas. Following this concept, my study aims to discover the most evident game stories' inferences in order to include them in the formal analysis of the games. However, this does not mean that stories aim at full disclosure, nor that I might not make different interpretations as a researcher.

After creating a vocabulary, the next step was to conduct the formal analysis in order to identify the most meaningful data from these specific games. I spent prolonged time with the games that are analyzed, reflecting on their stories, design and gameplay.

1.5.2.4. Empirical analysis of the games – Applying the model

Having completed this process and conducting the formal analysis of the games, I proceed to the *VEGA analysis - which is an application of the VEGA Model*. This analysis is conducted by advancing through the three stages of the theoretical model for each of the three games.

- The first step is to answer the questions in the sub-model VEGA-I, in order to identify whether the game follows any of the three VE approaches. These questions relate to the values promoted by the game, the moral freedom provided to players during gameplay, and the designers' intentions regarding the game's moral impact.
- The sub-model VEGA-II aims at detecting whether the selected games use any of the educational practices suggested by the game's VE approach.
- Through the sub-model VEGA-III I investigate whether the ethical issues derived from the criticism of the VE approach followed by the game have any relevance to the design and the objectives of the game, or to the players' experiences and learning impact.

For the VEGA analysis, I consulted several sources and tried to ensure the validity and the reliability of my method (Creswell, 2014; Maxwell, 1992; Morse, Barrett, Mayan, Olson, & Spiers, 2002; Scotti, Morris, & Cohen, 2003). Based on these suggestions, I developed my conclusions. Discussions with my colleagues and supervisors helped me to confirm or extend my thoughts and verify my conclusions. Finally, I constantly tested my understanding of the games for potential biases, as well as the fit of my data and the consistency of the concepts I used throughout the analysis.

1.5.2.5. Remarks on the results of applying the theoretical model

Once the VEGA analysis is conducted, drawing conclusions to answer my research questions is the next step. One of the most significant findings will be whether the traditional VE theories and practices are encountered in the design of the selected games, and whether the VEGA analysis provides helpful insights regarding the values embedded in the games, towards the consistent education of the players and the conscientious design of G4Cs. The results from the empirical analysis will be described and discussed.

Another significant outcome emerges from the process of applying the theoretical model itself. Using the VEGA model for the analysis of three G4Cs from the perspective of VE, is actually a prototyping process, through which an empirical prototype of the model as an analytical instrument for games has been developed. The VEGA model introduced after the empirical study addresses the moral learning of players, which is a theoretical advance for the research in the field of game studies.

Furthermore, the empirical results provide grounds for the creation of a more comprehensive and design-oriented tool; *game design patterns for teaching values*.

1.5.3. Creation of a Pattern Language and a preliminary Library of design patterns

Based on the empirical results, the research continues with the development of a new tool for the analysis and design of G4Cs. This tool is a pattern language and a preliminary pattern library.

The concept of design patterns is based primarily on Alexander's work (Alexander, 1964, 1979; Alexander, Ishikawa, & Silverstein, 1977). This prolific work shed light on how the pattern method works and justified my initiative to choose this approach, in contrast, for example, to a focus on game mechanics (Järvinen, 2008; M. Sicart, 2008). To build the pattern language and the patterns of this study, I examined many relevant, up-to-date projects of pattern creation, spanning from the fields of software engineering and programming, to human-computer interaction and, of course, game design. I examined projects and well-known pattern collections from the field of game design. Further, I focused on the game design patterns created for learning purposes, i.e. for educational and serious games. All of these projects, some to a higher degree than others, have been helpful to gain insight into how a pattern language is conceived, what the different pattern levels represent and which elements could make up the pattern format. These works were influential for my own pattern creation process.

The pattern language for the design of G4C is developed by integrating the theoretical and empirical findings of this research. More specifically, the patterns are developed using the VEGA model as a frame of reference. The *two different levels of the pattern language* correspond to the different types of knowledge described by VEGA-I and VEGA-II sub-models, respectively. As for the empirical results of the VEGA-III analysis, they are used for gathering essential information to apply the patterns appropriately[24]. This information is a type of moral counseling, emphasizing the most critical issues that need to be considered when using a pattern.

For the creation of the *pattern format*, I selected a set of elements to describe each pattern. These elements have been selected from the elements studied for building the VEGA model, as well as from the results of the empirical analysis of games using the VEGA model. For describing each pattern, I also considered the multiple examples of pattern creation provided by the literature. The literature on pattern creation showed that designers (or stakeholders from multiple fields) have created their own versions of pattern formats according to their particular design needs and priorities[25]. In all cases, it is significant to note that 'ultimately, the details of the format chosen do not matter as much as the fact that one format has been elected and is used consistently' (Kreimeier, 2002, p. 3). With this in mind, I selected the format of the patterns according to the particular purposes of the project.

Based on this language, I then initiate the creation of a pattern collection. The knowledge described in the patterns results from the empirical study, as well as some elements of the VEGA model that have not been empirically documented within the limits of this project. Following the example of Alexander and his colleagues (1977, p. xiv), the extra parts included are marked with an asterisk.

1.5.4. Redesigning *Epilogi In Crisis* based on the created patterns

After the process of pattern creation, I attempted to demonstrate the feasibility of the developed patterns for the design of G4Cs.To this end, I redesigned a game using the pattern library created. *Epilogi In Crisis* (Tramus et al., 2014) is an educational art-game

[24] This information is summarized into the pattern element of ethical lenses, as shown below.

[25] For instance, in some pattern formats the term objective is preferred, rather than problem. Some include the theoretical foundation on which the pattern is based, or others, evidence from the players' gameplay experiences (Plass & Homer, 2009).

in VR, conceived and developed by the research group of the Greek-French MSc[26] of the Athens School of Fine Arts and the Paris-8 University. Collaboration on the first level with the group started at the international conference *Digital Storytelling in Times of Crisis* (DST, May 8-10, 2014) in Athens, at which the first version of *Epilogi In Crisis* was presented[27]. The students had difficulties in designing the game in a meaningful way[28]. Thus, the idea was to design and create a second version of the game based on the results of my research. Both the aim and the subject of *Epilogi in Crisis* fitted the concerns of my research, highlighting the moral dilemmas that arise in times of a social crisis.

The use of the patterns for the design of the game *Epilogi In Crisis* can be considered proof of the concept for the current research. It confirms that the library of patterns provided is potentially practical and directly applicable to design games for moral education. The final product is available for playing, as well as available to be presented along with this dissertation.

1.6. Expected contribution

As illustrated, the exploration of moral values in the design of digital artifacts is a well-established field. The study of values becomes essential when the aim of the design is producing ethical digital practices, and building people's awareness. G4Cs is a representative example of such attempts, dealing with the most polarizing ethical issues of our times, while aiming at influencing players' minds regarding these issues. It is evident that the analysis of values in games designed to educate players in values, needs a different and more advanced approach than in games designed just for fun. The models developed so far for understanding values in games do not meet this need. This research is expected to focus on G4Cs, and to examine how games, apart from

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[26] The Master program has the title "Art, virtual reality and multiuser systems of artistic expression".

[27] Short presentation of the first version can be found here: https://www.youtube.com/watch?v=ZtL_K8IF4bo

[28] Previously, the research group attempted to find answers by looking to the field of law. This is the reason that the paper presented at the conference (Santorineos et al., 2014) contains a paragraph called 'Law and Rules'. My approach though, as introduced at the same conference, has been found more appropriate for the needs of the project.

embodying values, can also teach values to the players, and create gameplay experiences that would affect players' moral thought and action in real life.

With this in mind, this project is expected to advise the traditional field of VE, with its history of diverse educational approaches, different philosophical grounds, different sets of practices, and different values inherent in each approach. The intention is to identify whether the traditional approaches for VE are also applicable in the design of G4Cs for teaching values. The expected contribution has as much to do with philosophical aspects of the design of G4Cs, as with particular game design techniques for moral education. By disclosing a wide variety of values and pedagogical concerns, and by touching upon historical critical debates in the fields of ethics and moral education, this attempt is expected to *advance our understanding of the design of G4Cs, as well as the understanding of ethical game design overall*, and the analysis of values in all digital artifacts.

Most importantly, this study will identify game design elements that play a critical role in the moral education of the players and will introduce them to game studies. This would serve for the *analysis of values in G4Cs*, *bringing into discussion many moral aspects that have not yet been considered* when talking about ethics in games and generally values in design.

Moreover, by including a thorough study on the criticism that each VE approach has received, this project is expected to *provide a resourceful critical view on game ethics*. By establishing a solid ground for discussion and for the development of valid argumentation, it can substantially advance the *critique of G4Cs*. Nonetheless, as already explained, creating a comparative tool for the ethics of G4Cs is not in the scope of this study. It would not be easy, nor ethically licit to start measuring the ethics of G4Cs, or denounce game design efforts for awareness. Yet, the findings of this study could potentially help improve the design of existing G4Cs, providing new ideas for handling ethical design problems and alternative views on the players' moral education, or on the societal change they intend to bring.

Although the results will be grounded in the theory of the VE field, they are expected to be essentially practical, translating all this knowledge on ethics and moral education to *practical moral guidelines for conscientious designers of G4Cs*. This study is expected to facilitate the designers of G4Cs to address the particular ethical challenges involved in the design of these games, first by identifying them, and then by suggesting feasible and ethical design solutions. They could finally then be supported by some moral

guidance, revealing the moral implications of their design decisions, as well as the possible moral impact on the players' moral and learning experience. Furthermore, this research is expected to initiate a set of game design techniques for moral education identified in G4Cs. Based on this set of design concepts, the designers could, thereafter, add new design ideas or other commonly used techniques, reflect on the existing ones, or share their experiences, forming a resourceful database for designers of G4Cs.

In addition, the conclusions of this process might be useful as inspirational guides for *experimenting with innovative design approaches* that have not been applied so far, provoking new ethical play experiences. The findings could also inspire further research on the topic, providing new insights on teaching values through games, as well as on the compliance of games with the three VE approaches.

A more complete analysis of game values and a more conscientious design of G4Cs enable and ultimately contribute to a more consistent moral education of players, and subsequently, an increase of their ethical and personal moral development, as well as that of society. This is generally missing from the studies on ethics and design so far. As accurately stated, 'what such case studies fail to take into account are the impacts of such technologies on our moral decisions and actions, and on the quality of our lives' (Verbeek, 2008, p. 92). Accountable for directing this moral change though, are not only the game designers, but, as argued by Sicart (2009), the whole network of people involved in the design and production of games. Especially in the case of G4Cs, the design is usually undertaken by interdisciplinary teams, composed of educators, political and environmental scientists, and game designers. This study is expected to provide these teams with *a common language for communicating and sharing their concerns and their intentions*, from the phase of conceptualization and development, to the phase of assessment and improvement. By providing moral guidance on critical matters that arise when designing G4Cs, and by enhancing mutual understanding among the designers, G4Cs are likely to be more efficient and satisfy the designers' moral intentions.

2. Theoretical Study - Building the theoretical dimension of the model

In this chapter I present the results of the theoretical study of the research, which consists of a thematic analysis on the three VE approaches. The thematic analysis provided a rich and concise description of each of the three VE approaches, in a systematic and interpretative way. While also, it sets the ground for studying the diverse VE approaches at a comparative level. These two steps were guiding and supplementing each other in parallel during the study. The purpose of this thematic analysis is to build the theoretical model.

In this section, I present first, in chapter 7, the identified themes for each VE approach - Character Education, Moral Development, Values Clarification, followed by the themes that I discovered by analyzing these three VE approaches at a comparative level. While in Chapter 8, I present the theoretical model as developed through thematic analysis. This is done for the ease of the reader and as a way to organize in my text this vast theoretical knowledge.

2.1. Thematic Analysis of the VE Approaches

As already explained, the education of values can be performed in very different ways. Each way aims at different objectives, representing a different philosophy and suggesting different practices. This chapter presents the outcome of the **thematic analysis of each of the three VE approaches** - character education, moral development and values clarification - as well as the outcome of the thematic analysis of the **differential characteristics of these VE approaches**.

In the first paragraphs (7.1, 7.2, 7.3) I refer to each approach separately, presenting and justifying the themes that concluded from the study. The content for each VE approach is organized according to the three different data sets of the thematic analysis: a) the philosophical principles of the approach, including the problem setting, the moral aim and the beliefs of its advocates, b) the recommended *educational practices to be applied,* and c) the *criticism received* either by advocates or opponents of the approach. In the last paragraph (7.4), I refer to the themes I discovered while working with the

three VE theories at a more comparative level. All these results are represented in the VEGA model, which I illustrate in Chapter 8.

2.1.1. Character Education

> *'..mostly a traditional approach, focusing on the inculcation of desirable habits.'*
>
> *(Althof & Berkowitz, 2006a, p. 497)*

The oldest and predominant method of moral education is character education. As a term, it is sometimes mistakenly used as a synonym of VE. As McClellan (1999) states, there was a large interest in character education starting at the end of the nineteenth century, continuing through the first four decades of the twentieth century, and significantly interrupted by World War II (McClellan, 1999). In the early 1990s however, the field of character education changed, and more methods have been integrated, although inculcation remained the most dominant. According to Thomas Lickona, a central advocate of the Movement,[29] after this decline, a new era has begun for character education that 'restores "good character to its historical place as the central desirable outcome of the school's moral enterprise' (Lickona, 1993, p. 7).

Lickona finds that the rise of the "new character education movement" is significant for the current period, granted that our society is in "deep moral trouble" (Lickona, 1993, p.1). According to him, the main social problems that need to be dealt with via character education are the decline of the family, the troubling trends in youth character[30] and a

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[29] Thomas Lickona is a developmental psychologist, professor of education at the State University of New York at Cortland in New York, director of the Center for the Fourth and Fifth Rs, and a member of the advisory councils of the Character Education Partnership and Character Counts Coalition.

[30] In modern writings Linkona (1996) refers more explicitly to ten troubling youth trends: 'rising youth violence; increasing dishonesty (lying, cheating, and stealing); greater disrespect for parents, teachers, and other legitimate authority figures; increasing peer cruelty; a rise in bigotry and hate crime; the deterioration of language; a decline in the work ethic; increasing self-centredness, accompanied by declining personal and civic responsibility; a surge of self-destructive behaviors such as premature sexual activity, substance abuse and suicide; growing ethical illiteracy…' etc. (1996, p. 94). Some additional 'moral danger signs' for Lickona (1993) are: 'the deterioration of civility in everyday life; rampant greed at a time when one in five

recovery of shared, objectively important ethical values. Josephson (2002) also believes that ethical decision-making is essential in many situations in peoples' lives. This "requires a framework of principles that are reliable (…) and a procedure for applying them to problems" (p. 3). "Building character refers to the process of instilling within a person positive, ethical traits based on [these] principles (…)" (p. 32).

2.1.1.1. Principles

Character education is an educational endeavor 'to shape directly and systematically the behavior of young people by influencing explicitly the nonrelativistic values believed to bring about that behaviour.'

(Lockwood, 1997, pp. 5–6)

Proponents of this educational approach argue that "children need clear directions and good role models" and, more implicitly, that "schools should shape character when families are deficient in this task" (Joseph & Efron, 2005, p. 525). They view values education from the perspective of inculcation and see values as socially and culturally accepted standards or rules of behavior. Extreme advocates believe that the needs and goals of society should transcend and even define the needs and goals of the individuals (Huitt, 2004a). Thus, education in this case is considered a process through which the student accepts the standards or norms of individuals and institutions within the society. The student "incorporates" these values into his or her own value system.

There are many institutions worldwide, who have sought to direct schools wishing to undertake character education[31]. These efforts are based on particular principles and methods, crystallized in the following publications. Based on these texts – considered 'the Bible' of New Character Education – I can draw reliable conclusions related to the philosophy and the objectives of the movement. These fundamental texts of guidance and inspiration for character education are presented below.

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children is poor; an omnipresent sexual culture that fills our television and movie screens with sleaze, beckoning the young toward sexual activity at ever earlier ages; the enormous betrayal of children through sexual abuse' (Lickona, 1993).

[31] In the US for example, these are the Josephson Institute of Ethics, and the Character Counts Coalition, the Character Education Partnership, in which Thomas Lickona serves as a member of the board of directors, and the Communitarian Network.

- ***The Aspen Declaration*** published by a convention organized by the 'Josephson Institute of Ethics'[32] (1992):

> "The next generation will be the stewards of our communities, nation and planet in extraordinarily critical times. The present and future well-being of our society requires an involved, caring citizenry with good moral character. People do not automatically develop good moral character; therefore, conscientious efforts must be made to instruct young people in the values and abilities necessary for moral decision making and conduct. Effective character education is based on core ethical values rooted in democratic society, in particular, respect, responsibility, trustworthiness, caring, justice and fairness, and civic virtue and citizenship. These core ethical values transcend cultural, religious and socio-economic differences. Character education is, first and foremost, an obligation of families and faith communities, but schools and youth-service organizations also have responsibility to help develop the character of young people.
> These responsibilities are best achieved when these groups work in concert.
> The character and conduct of our youth reflect the character and conduct of society; therefore, every adult has the responsibility to teach and model the core ethical values and every social institution has the responsibility to promote the development of good character."

- ***The Six Pillars of Character*** (Character Counts, 1992), which constitute the 'ground rules of ethics' (Josephson, 2002, p.7) is a set of values that should guide our choices, as well as any moral and educational endeavor. These values, as it is claimed, 'are not political, religious, or culturally biased', but values that 'everyone can agree upon' (Character Counts, 1992):

> "Trustworthiness: Think 'true blue'; Be honest; Don't deceive, cheat, or steal; Be reliable - do what you say you'll do; Have the courage to do the right thing; Build a good reputation; Be loyal - stand by your family, friends, and country.

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[32] At a convention that took place in Aspen, Colorado, a diverse group of ethicists and educators (educational leaders representing state school boards, teachers' unions, universities, ethics centers, youth organizations, and religious groups) attempted to work together and boost their character education efforts.

Respect: Treat others with respect - follow the Golden Rule; Be tolerant and accepting of differences; Use good manners, not bad language; Be considerate of the feelings of others; Do not threaten, hit or hurt anyone; Deal peacefully with anger, insults, and disagreements.

Responsibility: Do what you are supposed to do; Plan ahead; Be diligent; Persevere; Do your best; Use self-control; Be self-disciplined; Think before you act; Be accountable for your words, actions, and attitudes; Set a good example for others.

Fairness: Play by the rules; Take turns and share; Be open-minded; Listen to others; Do not take advantage of others; Do not blame others carelessly; Treat all people fairly.

Caring: Be kind; Be compassionate and show you care; Express gratitude; Forgive others; Help people in need; Be charitable and altruistic.

Citizenship: Do your share to make your school and community better; Cooperate; Get involved in community affairs; Stay informed – vote; Be a good neighbor; Obey laws and rules; Respect authority; Protect the environment; Volunteer."

Often, the 'Six Pillars' are coloured in different colors in order to be memorized easily. There are more memorizing techniques suggested by the movement.

 The eleven principles of effective Character Education, published by Lickona (1996). These principles should guide the field, 'as criteria that schools and other groups can use to plan a character education effort and to evaluate existing character education programmes and materials' (Lickona, Schaps, & Lewis, 2002, p.1). Here are the principles:

1. "Character Education Promotes Core Ethical Values as the Basis of Good Character.
2. 'Character' must be Comprehensively Defined to Include Thinking, Feeling and Behavior.
3. Effective Character Education Requires an Intentional, Proactive and Comprhen-sive Approach that Promotes the Core Values in All Phases of School Life.
4. The School Must Be a Caring Community.
5. To Develop Character, Students need Opportunities for Moral Action.

6. Effective Character Education Includes a Meaningful and Challenging Academic Curriculum that Respects all Learners and Helps Them Succeed.
7. Character Education Should Strive to Develop Students' Intrinsic Motivation.
8. The School Staff Must Become a Learning and Moral Community in which All Share Responsibility for Character Education and Attempt to Adhere to the Same Core Values that Guide the Education of Students.
9. Character Education Requires Moral Leadership from Both Staff and Students.
10. The School Must Recruit Parents and Community Members as Full Partners in the Character-building Effort.
11. Evaluation of Character Education Should Assess the Character of the School, the School Staff's Functioning as Character Educators and Extent to which Students Manifest Good Character."

 The Content of our Character: Ten Essential Virtues (Lickona, 2003).A list of the most important virtues of character 'recognized and taught by nearly all philosophical, religious, and cultural traditions' (p.1):

"Wisdom:Wisdom is good judgment.

Justice: Justice means respecting the rights of all persons.

Fortitude: Fortitude enables us to do what is right in the face of difficulty.

Self-Control: Self-control is the ability to govern ourselves.

Love:Love goes beyond justice; it gives more than fairness requires.

Positive Attitude: If you have a negative attitude in life, you're a burden to yourself and others.

Hard Work: There is no substitute in life for hard work.

Integrity: Integrity is adhering to moral principle, being faithful to moral conscience, keeping our word, and standing up for what we believe.

Gratitude: Gratitude is often described as the secret of a happy life.

Humility: Humility can be considered the foundation of the whole moral life."

As it appears, the purpose of character education is the promotion of fundamental values, which are the foundation of good character. What I need to examine is how 'character' is perceived by the character education movement, as well as which are these fundamental values. According to a recent model (Davidson, Lickona, & Khmelkov, 2008), character consists of two key parts: performance character and moral character. '[Performance character] consists of those qualities (...) needed to realize

one's potential for excellence in any performance environment (...) and throughout life. (...) [Moral character] consists of those qualities (...) needed for successful interpersonal relationships and ethical conduct' (Davidson, Lickona, & Khmelkov, 2007, p. 373-374). Both parts are equal in status and interdependent (Davidson & Lickona, 2007), meaning that each one needs the other. Therefore, both need to be equivalent goals of character education. [33]

An additional issue to be addressed here is the universality of values as conceived and expressed in the writings of character advocates. Character educators claim the promotion of 'universal' or 'core' ethical values, accepted by all ideologies, cultures and religions. While some also use terms such as 'virtues', 'pillars', or 'expectations' to refer to the character qualities they wish to enforce. The CEP (Character Education Partnership) summarizes the general view on this, as follows (Character.org, 2016, p.2): 'Whatever the terminology, the core values promoted by quality character education are ones which affirm human dignity, promote the development and welfare of the individual, serve the common good, define our rights and responsibilities in a democratic society, and meet the classical tests of universality (i.e., Would you want all persons to act this way in a similar situation?) and reversibility (i.e., Would you want to be treated this way?).'

2.1.1.2. Common and Recommended Practices

In this paragraph I focus on implementation strategies that prevail in character education, as applied in schools and in programs for character formation. The data I worked on has been gathered, apart from the literature of Character Education, mainly from a personal investigation of various online character education programs. Through this survey, my interest was on the objectives of the programs, their missions and the activities provided online. The strategies employed by these online programs usually match the strategies suggested by the proponents of the character education movement.
In the next paragraphs, I identify the most common character education practices, followed by some examples and practical recommendations for their implementation.

i. Behavior Missions

[33] This dual character development is also supported by Berkowitz (1997).

Evidently, one of the primary aims of character education is to instill certain values in students. In the statements illustrated above, these values are mostly expressed in an imperative way and usually refer to the behavior of the learners (what to do and what not to). Lickona (2003) emphasizes the need for 'a common set of character expectations that all grade levels work on year round, with individual teachers choosing which virtues to emphasize at any given time through a book, activity or curriculum unit.' (p.3) Berkowitz has also referred to mission-driven initiatives: 'School leaders need to articulate clearly the character mission, need to keep it alive by invoking it as a central criterion for policy and practice, and need to give it top priority in school functioning and resource allocation' (Berkowitz, 2005, p. 4).

These expectations should be clearly defined and strongly held by the whole school community. All decisions should be taken according to these missions, as 'components of what together should comprise a comprehensive and integrated school improvement plan', and 'not a smorgasbord of individual options that each alone can be expected to be effective' (Berkowitz, 2005, p. 4).

A representative example of using this approach is the Montclair Kimberley Academy (Montclair Kimberley Academy, n.d.), an award-winning, pre-K-12 co-educational independent school, for both intellectual and character development. During the 2003-2004 school year, a group primarily made up of students developed a 'Code of Honor' that incorporates an 'Honor Constitution' and an 'Honor Council'. According to the leaflet provided by the school (Montclair Kimberley Academy, 2004) the 'Honor Constitution' is reviewed each year, and students and/or faculty can make proposed changes, with justification. The 'Honor Council' evaluates the proposals and puts changes forth to the student body that votes on each proposed change separately. As for the renewal of the 'Code of Honor' and 'Honor Constitution', it is accompanied by a signing ceremony. The 'Honor Council' is also responsible for discussing and deciding on a consequence, in case the 'Code' has been violated by individuals.

Another remarkable example comes from the *National Association for Self-Esteem* (Maryland Center for Character Education, n.d.), which prompts students to identify and develop good character traits. The steps of the process are the following: 'Start by listing the characteristics you have and are most proud of. Be sure that your daily behavior expresses these characteristics. Then list the characteristics that you want to develop to be more successful in achieving your goals and becoming the person you want to be. Determine the specific behaviors that represent the desired characteristic.

Now write the characteristic and specific behaviors on a Focus-reminder card. Each morning, read the card and picture yourself acting that way during the day.' There are many more examples of school attempts to clarify the character traits that should be the focus of character education efforts.

To identify which virtues should be taught, Lickona (2003) provides a 3-step methodology to be used by members of school communities. 'The first step is brainstorming, while having in mind the following questions (p.1): What qualities do we want our graduates to possess? What moral and intellectual strengths will best equip them to lead purposeful, productive, and fulfilling lives and to build a better world?' After the group has listed these qualities on sheets and posted them around the room, the next step is to compare these values with pre-existing schemes defining good character, e.g. the ten essential virtues described above. The question, at this stage, is whether there are some common elements, and which virtues would be the best match for the culture and the developmental stage of the learners.

ii. Behavior Control

Character educators expect their students to adopt the values that have been taught, and to put them to use in their daily life in and out of school; '(...) you have to hold students accountable in some way so that when they violate the value, there is some kind of a correction, that they're held responsible for their behavior, and there's accountability in the system' (Lickona, as quoted in Cohen, 1995). How can learners' behavior be controlled though? In the literature of character education, there are no clear suggestions on how control and accountability can be achieved, or on criteria of judgment. Yet, I have found some evidence of behavior control in character education practices.

A strategy for behavioral control is used at the *Madison Traditional Academy* (n.d.). Each month students learn about a different character trait. A character chart that should be filled out daily is used and brought home. As a teacher of the school states: 'Parents see the chart every night. (...) It makes them more accountable if they know mom's going to know when they misbehave' (Smokey, 2009a). Apart from infractions, positive behaviors are also recorded on the student's cards. An additional example for behavior control is the sheet called 'Can Be a Wise Student!' (Wise Skills, 2011), designed to make students reflect on their negative behaviors.

iii. Direct Moralization through lesson plans and values-advertising

Direct lessons on a values-related topic are commonly encountered in character education programs. Multiple sequenced lessons are offered online by a great number of organizations to use in school curriculums, to address specific problems, e.g. drugs use, bullying, conflict, child abuse, or facilitate the learning process. These lessons usually provide detailed advice to the parents as well as to the school community, while requiring the cooperation of both. *Positive Action* (2012), for example, is a program that teaches positive actions for the physical, intellectual, social, and emotional aspects of oneself. *Committee for Children* (Comittee For Children, n.d.) offers lesson plans for social and academic success, for preventing substance abuse, violence and bullying, and even the prevention of sexual abuse. Some lesson plans support families in discussing sensitive but critical issues with children. Finally, the *Medal of Honor* (Medal of Honor Foundation, n.d.) encourages students to explore the important concepts of 'courage, commitment, sacrifice, patriotism, integrity and citizenship', through a collection of lesson plans, called 'Lessons of Personal Bravery and Self-Sacrifice', drawn from the personal accounts of living Medal of Honor recipients[34].

Another practice used in character education programs is advertising values, although this has only scarcely been found in recommendations by theorists. The following statement is from an activity workbook, authored by the Head of the Passkeys Jefferson Center for Character Education (Brooks, 1996, p.12): 'There's a new product on the market! It's Considerate Cereal. Eating it can make a person more considerate. Design a label for the box. Tell why someone should buy and eat this cereal. Then list the ingredients.' The program *WiseSkills* (2011) implements this strategy by selling products as values-posters and values-cards in order to reinforce the character formation of students. Character-posters are also on the market featuring historical role-models. Both lessons and advertising values are considered practices to directly moralize students.

iv. Involvement of family, peers, local and broader community

The community, as it is presumed, not only consists of the school, but includes all the aspects of the social, religious, and political life of the moral agents. 'Children are most

[34] As stated on the website it 'does not glorify or glamorize war. On the contrary, these dramatic "living histories" and the accompanying instructional activities encourage students to consider courage from their own perspectives.'

likely to become persons of character when they grow up in communities of character, where there is an effort on the part of families, schools, churches, temples, mosques, the media, the government, sports leagues, the chamber of commerce - everyone who has the opportunity to influence the values of young people - to both model and teach these character qualities.' (ECT, 2000). In this section, I attempt to examine some of the ways that these different stakeholders can influence the formation of children's characters. I consider most important to be the parents, school, peers and local community.

The parents

Both in theory and practice the role of parents is emphasized in building the character of their children (Pala, 2011, p. 28); 'Parents are the primary and most important moral educators of their children. Thus, public schools should develop character education programs in close partnership with parents and the community." This is also one of the *Eleven Principles* described above. *Characterplus* (n.d.) is an initiative providing parents, along with schools, quality training, resources, and leadership. Berkowitz defines different types of parents' involvement in the VE process of children: a) parents being informed about the school's character education initiatives (by newsletters, email, online announcements or through messages sent home with students), b) involvement of parents 'as clients' (schools provide training and information to parents to help them with issues such as effective discipline, how to help with homework and understanding child development), c) involvement of parents 'as partners' (schools truly collaborating with parents to design, deliver and/or evaluate their character education initiatives)' (Berkowitz, 2005, p. 7). There are many examples of programs that incorporate parents either as an audience, or as clients, or as partners in the school values education process. Some of them also emphase parents as role models themselves.

The school community

The significance of the positive moral culture created in school is emphasized by many advocates of character education. 'Schools have a profound and extensive influence on youth as they spend a large percentage of their child and adolescent years in schools' (Berkowitz, n.d.). In this community, teachers play the most important role, as they are directly connected to the students and create the classroom environment. 'Teachers act as caregivers, models and mentors, treating students with love and respect, setting a good example, supporting pro-social behavior and correcting hurtful actions. The

teacher creates a moral community, helping students respect and care about each other and feel valued within the group, and a democratic classroom environment, where students are involved in decision-making' (Pala, 2011, p. 28). *Project Wisdom* (2011) offers professional support for teachers by sending weekly emails (title 'Just For You message') with best practices and easy to implement materials, as well as uplifting stories shared by other educators. At the core of this program is 'the Online Library of Broadcast Messages', a series of short inspirational messages to encourage students and staff members.

As found in the survey, apart from training teachers, most of the educational programs examined also provide leadership training, because school leaders have the greatest influence on school climate (Berkowitz, n.d.). These opportunities are usually offered in the form of interactive training, on-site workshops, consultation meetings and remote coaching. *PeaceBuilders* (n.d.) is a program for violence prevention, which offers training for the entire school staff by professional trainers (Support Coaches) in order to create a safe and positive environment for the children.

Peers

Character education places a strong emphasis on peer relations; 'the influence of peers begins in the preschool years, especially for children who attend preschools, but this influence clearly increases throughout childhood and peaks in adolescence. Peers have a strong effect on self-concept, social skills (e.g., conflict resolution, making and maintaining friendships), moral reasoning development, involvement in risky behaviors, and so on' (Berkowitz, 2002). The common strategies for achieving a friendly classroom environment are class meetings, where teachers facilitate by engaging the entire class in discussions of curricula content, classroom management, extracurricular activities and current events. Students in such meetings are empowered to make decisions, solve problems, debate issues and plan activities.

The *Common Core State Standards Initiative* (n.d.) offers programs for parents and teachers to help students with word spelling, reading, and text comprehension, while simultaneously supporting their ethical development and empowering their discursive skills. Additionally, the *Caring School Community* (Center for the Collaborative Classroom, n.d.) aims at strengthening students' connection to school, which is considered crucial for increased academic motivation and particularly 'for reducing drug use, violence, and delinquency'. Further, *Responsive Classroom* (n.d.) attempts to

improve social skills and foster group cohesion by implementing Morning Meetings. These are daily morning gatherings of teachers and students in a circle, following suggested rituals, e.g. greeting, sharing important personal information, reading poems, dancing and other group activities.

Cooperative learning is another interactive peer method that can be encountered in the programs of the *Cooperative Learning Institute* (University of Minnesota, n.d.). It aims to promote social interdependence, constructive conflict resolution, and cooperative learning rather than competitive, or individualistic efforts; 'Cooperation is working together to accomplish shared goals. Within cooperative situations, individuals seek outcomes that are beneficial to themselves and beneficial to all other group members.' Thus, students are given opportunities to work together in small groups to achieve their own and each other's learning. Berkowitz (2012) also proposes various strategies for peer interaction (p.3), i.e. 'elementary school cross-grade "buddying", peer mentoring, peer tutoring, peer conflict mediation/resolution programs, middle and high school advisory/homeroom programs, student government, etc.'

The local and broader community

The proponents of character education place great emphasis on individual character formation by instilling values decided and accepted by the community. However, in practice, I have not encountered any initiative involving the local community in making moral decisions. What is common and highly considered though is: national leadership–in terms of decisions on educational matters, national standards of excellence–in terms of academic achievement goals, and national or local support–in terms of state-funds and professional aid.

Another way to interact with society is by addressing and confirming the positive impact of character education efforts, or observing society's moral deficiencies and 'bad' behaviors to be addressed by character education programs. As Lickona (2000) has stated in an interview, 'We've seen, for at least three decades, a decline in the quality of everyday moral life, in things as simple as civility, people's manners in public places, and courtesy on the road. It requires a society-wide effort to restore the moral fabric.' (ECT, 2000)

In closing, significant interaction with the local or wider community takes place through services, consistent with the core values of character education. Students participate actively in supporting members of the community or resolving community problems,

according to the values that have been taught. More specifically: 'Students are given opportunities to engage in many kinds of service to others in and outside school:in the classroom (peer tutoring, assigned chores etc.), across the school (gardening, cross-age mentoring, traffic crossing guard etc.), or in the community (helping at a senior citizen residence, cleaning a local park etc.)' (Berkowitz, 2005, p. 7). *Maryland State Department of Education* (n.d.) engages students of all ages in service learning, and includes guidelines for best practice in school-based service learning programs, and self-assessment tools for teachers to evaluate the effectiveness of their programs. Throughout my survey, many other programs connect teaching with service to the community and volunteering for the common good.

v. Exemplars

As character education proponents support, all adults in the school community interacting with students on a daily basis should demonstrate positive character traits, not only at school, but also at home and in the local community. As stated, 'Schools can only promote character development if all stakeholders (administrators, teachers, support staff, etc.) manifest those same attributes' (Berkowitz, 2005, p. 6). This is based on the belief that people always convey values through their own actions; 'It's in the way you talk, the behaviors you model, the conduct you tolerate, the deeds you encourage, the expectations you transmit' (Elkind & Sweety, 2004, p.1). Exemplars can also be incorporated into literature and social studies. A common practice for example, is 'through the study of heroes and heroines' (Otten, 2000). Yet, the character models could also be fictional, taken from books or films. Berkowitz distinguishes two categories of role models: 'The first are those we learn about. They may be fictional characters (...), historical figures (...) or contemporary local heroes. The second are those we interact with. These are the adults in students' lives. In the school they are administrators, teachers and support staff' (Berkowitz, 2005, p. 5).

The *Giraffe Heroes Project* (n.d.) is one of the most representative cases of exemplars from the first category. It provides examples of 'real heroes' of all ages, races and locations, who have shown great courage and taken great risks for the common good. Moreover, it challenges students to explore the difference between a 'hero' and a 'celebrity' (Otten, 2000), to spot a hero in their environment, and share their story. An

additional resource is the book[35]byJohn Graham (2005), drawing on his own extensive experience as an activist and negotiator, as well as the experiences of many others who have brought about positive change, tackling problems like poverty, racism, gang violence, environmental pollution, and many others. The *Medal of HonorFoundation* (n.d.) presents exemplars through the lives of the Medal of Honor recipients, while it also clarifies the expectations of young citizens to serve the values they are taught[36]. The students are asked about the historical events that occur in the stories, as well as to connect and apply what they have learned to their own lives. The program additionally provides opportunities for Video Conferencing with Medal of Honor Recipients. One last example of highlighting role-models comes from the *WiseSkillscurricula* (n.d.), which prompts educators to put posters up in the classroom or around the school featuring world-famous figures[37]. Another category of exemplars is the role model of teachers and parents. The idea that teachers should model what they want their students to do, is presented in the videos of *Peacebuilders* ('Peacebuilders Videos', 2011).

As for the other category of exemplars, it comprises the teachers and the parents as role models. This idea that teachers should model what they want their students to do, is represented in the videos of *Peacebuilders* ("Peacebuilders Videos", 2011).

vi. Rewards

Offering rewards is a method that has been both criticized and promoted by character advocates. The educational programs I have examined are also ambivalent and often contradictory on this matter. Berkowitz is against rewards and 'extrinsic incentives', referring to their use as 'a very common pitfall' to be avoided (Berkowitz, 2005, p. 6);

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[35] The author covers topics such as choosing an issue, mapping out a plan, creating a vision of success, organizing a team, building trust, resolving conflicts, working with the media, moving through bureaucracies, devising legal strategies and more.

[36] More precisely, as stated on the website: '"the Medal of Honor Curriculum Development Project demonstrates with crystal clarity that our young citizens, those who will carry our democracy into the future, can be taught the importance of service to the community and the values that made this nation great.'"

[37] Aristotle, Confucius, Chief Joseph, Mother Teresa, Eleanor Roosevelt, Dr. Martin Luther King, Jr., Mohandas Gandhi, Jesse Jackson, Marie Curie, Albert Einstein, William Shakespeare, Stephen Hawking, Jacques Cousteau, Rosa Parks, Albert Einstein, Jane Goodall, Andrei Sakharov, Nelson Mandela, Billy Graham, Buffy Sainte-Marie, Wilma Mankiller, Joan Baez and the Dalai Lama.

‘Too often teachers fall prey to inducing desirable (including virtuous) behavior by rewarding students. (...) character is only truly developed if it is valued intrinsically.’ He offers an example of a class rejecting an offered reward (for good cafeteria behavior) because students felt they did not need a reward to do the right thing.

On the other hand, as presented in the online article ‘Schools reward good character’ (Smokey, 2009b), Mike Scantlin who worked for 23 years in character education programs rewarding students, has a positive opinion about rewards as ‘a strong motivator’. Even when the reward was an extra 90 minutes of playing sports or listening to music, Scatlin noticed that students made more of an effort to raise their hands, or turn in their homework, ‘because they want to go play soccer.’ In this way, teachers can also focus more on curriculum instead of worrying about discipline. A school psychologist and counselor writing in a character education journal, emphasizes praise and social recognition for motivating good behavior, rather than extrinsic material rewards; ‘(…) when a student holds a door, an adult might say, “Thank you for holding the door. That was a very thoughtful thing to do.” We constantly try to help students see how their behavior affects others’ (Babin, 2002, p.6).

Social praise is encountered also in the *Celebration Assemblies* organized by some schools which recognize students’ talents to perform music recitals, theater plays, poetry readings or story narration. Moreover, praise is used within the circle of character education schools through the designation of *National Schools of Character* by CEP each year; school-‘winners’ have a positive impact on academic achievement, student behavior and school climate (Character Education Partnership, n.d.). Furthermore, recognition is overtly encountered in the character education programs, usually in the form of ‘Certificates of Recognition’, title-awards signed by the school for distinctive performances of behavior or academic achievement. Other products, which can also be for sale, are reward cards, bookmarks, balloons and pencils with quotations on good character or other relevant messages (Wise Skills, 2011).

vii. Values of the Day/Week

One of the most important practices for promoting particular virtues to learners is setting values for the day, week, or month. Or, as Lickona (2003) refers to it: ‘assigning a developmentally appropriate virtue to each grade level for study over the entire school year (...) affording the opportunity for in-depth study, repeated practice and habit formation’ (Lickona, 2004, p. 18). Alternatively, a character education program could

work with three or four values rotating over some years, or a theme per year (e.g., the year of courage, the year of peace), often in combination with a quarterly focus (e.g. promoting peace in our classrooms, in our school, in our families, in our world).
According to my research, this method is one of the most broadly used by character education programs in schools. The curriculum of the *Core Essential Values* (2019) for example, is based on this concept. For example, the values promoted for each month of the school year 2019-20, were: trust, courage, honor, joy, knowledge, creativity, forgiveness, humility, and determination. Each of the above values is represented by an animal. In addition, a set of three goals (BIG3) rotates over a three-year plan, e.g. treat others right; make smart decisions; maximize your potential. The same practice is used by the *Ashbrook Independent School* (2017).

2.1.1.3. Criticism of Character Education

Character education raises a number of ethical concerns, as well as some critical questions that its advocates have not been able to satisfactorily answer. A major area of criticism surrounding character education involves the fact that it is an indoctrinative approach. Indoctrination is commonly associated with such terms as inculcating, moralizing, preaching and instilling. What this actually means is that the educator sets particular values and behaviors to the students, which in our case are players, without allowing them 'to subject the idea to objective reasoning' (Huss & Patterson, 1993, p.239). Or, as written in the introduction of 'The Book of Virtues' (1993), 'planting the ideas of virtue, of good traits in the young, comes first' (Bennett, 1993, p. 12–13). According to Joseph and Efron (2005), the questions that character education fails to answer are the following (p.526): 'are behavioral traits in fact the same as moral character? Do displays of virtues or desired traits truly encourage moral behavior? Does the posting of character traits on banners and bulletin boards result in a "marquee mentality" and therefore not reach the hearts and minds of young people? Is character education merely indoctrination of dominant cultural standards that may not represent the values of diverse communities? And finally, do the values chosen by character educators reflect the status quo and encourage compliance with it?'

Furthermore, Alfie Kohn (1997) - one of the most important adversaries of Character Education - addresses many of the deficiencies of this approach in his article 'How Not to Teach Values' (Kohn, 1997, p.3): 'At what level are problems addressed? What is the underlying theory of human nature? What is the ultimate goal? Which values are

promoted? And finally, how is learning thought to take place?' It is important, in this section, to demonstrate the vulnerabilities of character education through the arguments of its opponents, as well as provide alternative ideas and suggestions, derived from the same critics.

i. Hindering moral reasoning and critical thinking

The moral agents learn the 'right' behavior, without appealing to the reasons for internalizing this behavior; they are committed to the 'what', but without understanding the 'why' (Raywid, 1980). In other words, people might end up 'doing the right thing for the wrong reason, or for no reason at all' (Pritchard, 1988, p.475). In general, character education has received much criticism for hindering moral reasoning and critical thinking, as 'a model that sees children as objects to be manipulated rather than as learners to be engaged' (Kohn, 1997, p.4).

ii. Limiting moral autonomy and imagination

Another problem with indoctrination is that it hinders the development of moral autonomy. The reason is that: 'The goal is not to support or facilitate children's social and moral growth, but simply (...) to get compliance, to *make* children act the way we want them to' (Kohn, 1997, p.4). Constraining the learners to think in a prescribed way, limits their moral autonomy, their imagination and their ability to think of alternatives (Charlene, 1990). It is generally associated with a future disability of the moral agents to adjust and find new solutions to potentially problematic situations in the future (Paske, 1986).

iii. Risk of conveying ill values

As character education promotes certain values selected by the educators, it is very important to take a close look at these values. Indeed, character education could end up being dangerous if the promoted values support an ill system. It is a fact that the character education tradition has actually 'characterized the German school system during much of his history prior to the Nazi takeover, and certainly during the Nazi era itself' (Primack, 1986, p. 12).

iv. Contradiction with democracy

The argument here is that imposing a 'bag of rules' on the moral agents, 'that he or she may not understand or accept and may very likely resist', undermines the very democratic process itself; 'The most deadly pedagogical sin is moral imperialism' (Beach, 1992, p. 31). This uncritical acceptance of behaviors and values as 'dogmas' has also been considered dangerous for the continuation of democracy, which needs active critical thinkers rather than 'blindfolded adherents' (Kilpatrick, 1972, p. 52). In order to make this point clear, many authors attempt to give potential alternative goals to character education. As Kohn (1997) writes (p.4):

> 'Character education, or any kind of education, would look very different if we began with other objectives - if, for example, we were principally concerned with helping children become active participants in a democratic society (or agents for transforming a society into one that is authentically democratic). It would look different if our top priority were to help students develop into principled and caring members of a community or advocates for social justice. To be sure, these objectives are not inconsistent with the desire to preserve certain traditions, but the point would then be to help children decide which traditions are worth preserving and why, based on these other considerations. That is not at all the same as endorsing anything that is traditional or making the preservation of tradition our primary concern. In short, we want to ask character education proponents what goals they emphasize - and ponder whether their broad vision is compatible with our own.'

Other critics (Joseph & Efron, 2005) also argue (p.532): 'We question why the dominant approach to moral education consists of the practice of giving rewards to students just for following rules and for occasional acts of kindness. Instead, should we not help students to engage in profound ethical deliberation, revere peace, be cared for and be caring, and develop as moral agents who can repair the world? Why are these not among the endorsed goals of moral education?' Additionally, the same authors state that compared to character education, other approaches for VE "hold more humane, imaginative, and profound visions of morality and moral education" (p.532).

v. Negative View of Human Nature

Character Education philosophy has also been charged with a negative view of human nature, treating individuals as 'reactors rather than as initiators' (Huitt, 2004b, p.1), and

assuming that without being taught and controlled, humans would normally behave 'wrong'. This is what Kohn (1997) calls 'fix-the-kids' orientation, following the belief that people in general need to be corrected (p.431). The main argument for casting doubt on the negative view of human nature is that there is no scientific evidence for it. As stated by Kohn (1997) 'it is as "natural" for children to help as to hurt' (p.431). In fact, several disciplines have shown that violence and aggression are not inherent in human nature (de Waal, 2012; Adams et al., 1990). Kohn suggests that 'the promotion of pro-social values consists to some extent of supporting (rather than restraining or controlling) many facets of the self' (Kohn, 1997, p.431). Moreover, a major concern of these critics is the common use of 'self-control', or 'self-discipline'[38], in the campaigns of character education. As criticized by Kohn (1997), self-discipline means in fact a limitation of our own selves, a control over our desires, which consequently means that our desires are conflicting either to our reasons or to the social norms, so they are evil and sinful.

vi. Narrow View of the Problem

Additional criticism refers to the social problems that character educators consider most significant to our society. Kohn (1997) accuses this movement of having a deficient and conservative view of social problems, as its advocates usually ignore the political and economic realities: 'Never mind staggering levels of unemployment in the inner cities or a system in which more and more of the nation's wealth is concentrated in fewer and fewer hands; just place the blame on individuals whose characters are deficient' (p. 430). Along the same lines, Glanzer (1998) talks about 'structural injustices' that should be considered when pursuing values education, as well as about the position of the people within those structures (p. 435). Indeed, character education focuses merely on

[38] An example of promoting self-discipline: "like animals, people experience a variety of temptations (lusts, needs, desires); people of character differ from animals and from their less civilized neighbors in that they are able to review and judge their temptations before responding. (...) We humans are not so saintly. However, people of character are not enslaved by temptation. For such individuals, life is a continuous struggle between their conception of what is right and what they are tempted to do. (...) As character becomes stronger, as one's ability for self-discipline grows, so does an individual's capacity to choose the right course to follow" (Etzioni, 1998, p.447).

behavioral problems of individuals, ignoring the global issues of poverty, climate change, wars and oppression.

A second argument of Kohn (1997) is based upon the evidence of social psychology, and on the so-called "fundamental attribution error"[39] (p.4). The problem is that assigning specific social roles to persons can lead them to actually become their roles. Kohn uses as an example the attempt of character educators to persuade students that lying is wrong: 'But why do people lie? Usually because they don't feel safe enough to tell the truth. (...) It means the problem has to be dissected and solved from the inside out. It means behaviors occur in a context that teachers have helped to establish; therefore, teachers have to examine (and consider modifying) that context even at the risk of some discomfort to themselves' (p.5). Thus, as Kohn concludes, our emphasis as educators should not be on shaping the characters of individuals, but on changing and adjusting the educational methods.

vii. No lasting commitment

Considering that values are imposed on the learners, often without relating the expected behaviors to any reasons for adopting them, learners might not internalize these values and return to the wrong behaviors soon after the educational process. As stated, 'This seriatim approach is unlikely to result in a lasting commitment to any of these values, much less a feeling for how they may be related' (Kohn, 1997, p.430).

The long commitment of people to the values learned is a significant concern of almost all the approaches of VE. To tackle this problem of character education, Kevin Ryan (1993) suggested an educational practice; character education has to help learners to '*know the good, love the good and do the good*' (p.16). As he explains, 'knowing the good' in this approach can be achieved through explanation and exemplars. 'Doing the good' can be achieved through opportunities for moral action and control. 'Loving the good' is what actually connects the other two, what motivates the individual while knowing the right, to act according to the right and to continue doing that. This is what he calls moral 'emotion' (Ryan, 2002), which serves as a bridge between judgment and action. Apart from this attempt though, which is merely supported by Ryan, I have not

[39] This is a common tendency of attributing someone´s characteristics to internal factors (e.g. character) while underestimating the social or situational influences.

encountered any other developed thoughts for improving the people's commitment to the values taught.

viii. Universal Values versus Relativism

Character education strives for the promotion of 'universally accepted' values. Etzioni (1998), for example, challenges the educators to start 'with the myriad values we all share', and clarifies that 'Nobody considers it moral to abuse children, to steal, to commit rape or murder, to be disrespectful to others, to discriminate, and so on' (p. 447). However, this view contradicts the theory of ethical relativism. Ethical Relativism is a philosophical theory, claiming that 'there is not a single objectively true morality but only many different moralities' (Harman, 2012, p.1). The relativists hold that values differ from society to society, and therefore we are not justified in making cross-cultural judgments. As this theory has been generalized to persons, this means that each person's values have to be respected, and that there are no ethical standards for judging them. Consequently, any universally accepted value is trivial, as there are no absolute truths. Moral relativism is also associated with the idea of tolerance (Benedict, 1934, p. 37) towards moral practices that are different to one's own.

In the context of education though, it is highly doubtful whether there can be a 'values-free' education. As already discussed in the introductory section, any educational endeavor implies values. The question, therefore, regarding character education, is whether individuals learn about other moral views, or, whether tolerance towards these other views is taught as one of these values.

What is also related to this, is the significant influence of our social and cultural environment in forming the ground of our morality. The ethical traditions provided by our peers and the family and society we are raised in, determine, for the most part, the way we understand ethical issues, as well as our moral development and behavior. Hence, regarding relativism and character education, the problem might arise when students are deprived of a critical examination of the values inherent in their cultural tradition and the consideration of different moral standards.

ix. Reproduction of systemic values

As it appears, character education aims to promote certain traditional values chosen by adults, without giving students any space to revise them. As Kohn (1977) notes:

'students are taught - indeed, compelled - to follow the rules regardless of whether the rules are reasonable, and to respect authority regardless of whether that respect has been earned' (p.433). Consequently, he concludes, the question is whether we want to consolidate the conservative values already taught in character education schools. For example, regarding the reinforcement of 'hard work', which can be found in many character education curricula.[40]Kohn believes that it is a common 'protestant ethic'. This value raises the question: 'que on Cui bono?' that makes us think who benefits from this. Who benefits when people are trained not to question the values they have been instructed in?

Answering this, Alfie Kohn quotes Kevin Walsh, a proponent of character education who declared that 'the development of character is the backbone of the economic system now in place' (NY Times, 1992). The tendency of character education to preserve traditional values has been criticized by other writers as well. Joseph and Efron (2005) remark that 'character education has the most limited vision of morality and moral education - despite its advocates' good intentions' (p.532). Additionally, David Purpel (1991) notes: 'The orientation of this movement resonates with neo-conservative concerns for social stability, the preservation of conventional canons of schooling, and the restoration of the primacy of the old-fashioned bag of virtues - hard work, perseverance, respect for authority, delay of gratification, obedience, endurance, and courage' (p.311).

In an effort to break this tradition, several critics of this VE approach (Etzioni, 1998; Kohn, 1997) proposed that alternative values could be promoted by character education, such as empathy, skepticism[41], moral autonomy and self-determination. Could character education programs teach these values instead of the traditional ones? This question remains.

x. Inconsistency between 'means' and 'ends'

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[40] Children should learn to 'work hard and complete their tasks well and promptly, even when they do not want to' says Kevin Ryan (K. Ryan, 1993, p. 16). The values of diligence, obedience and patriotism (Edward A. Wynne, 1985) are other examples of conservative traits that cannot be qualified as objectively moral.

[41] Skepticism is perceived as "the tendency to wonder about the validity of what we encountered" (Kohn, 1997, p. 432).

Although we might have an ultimate goal to achieve in our lives, sometimes we find ourselves using means which are conflicting to this end-state goal. As explained in the introduction of the current dissertation, values are distinguished based on their purpose into two fundamental types, *terminal* and *instrumental*. The problem that Kohn (1997) points out is that the instrumental values and behaviors supported by character education might be 'potentially controversial' to the desirable terminal values. Or, that there is 'a superficial consensus' that might dissolve when we take a closer look (Kohn, 1997, p. 433). For example, the practice of setting individual players or groups opposing each other in a quest for triumph cannot be claimed to promote cooperation. Even if the groups work together and cooperation can be considered as means, the end state goal is still victory.

2.1.2. Moral Development

From the perspective of moral development, people progress in their thinking about moral issues developmentally. Lawrence Kohlberg (1969, 1984) found that the structure of moral thought goes through a predictable sequence of developmental stages. People can comprehend one stage above their current primary stage, and exposure to this next higher level is essential for enhancing moral development. The role of educators thus, is to stimulate the development of more complex moral reasoning through the stages. This can be achieved through the development of cognitive skills, such as critical thinking, decision-making, and moral reasoning. In this section, I provide a deeper understanding of the moral development theory, through the conclusions of its most influential researchers, its practical guidelines, and its weaknesses.

2.1.2.1. Research

> *'What evaluative criteria do people use in making judgments about the rightness or wrongness of an action? What criteria do they use in evaluating the relative legitimacy of two or more conflicting moral claims?'*
>
> *(Hoffman, 1982, p. 83)*

The theory of moral development is based on the pioneering efforts of Jean Piaget (1932). Piaget studied many aspects of moral judgment, but most of his findings fit into a two-stage theory; children younger than 10 or 11 years think about moral dilemmas one way; older children consider them differently. More precisely, younger children regard rules as fixed and absolute; they believe that rules are handed down by adults, or

by God, and cannot change. The older children's view is more relativistic; they understand that rules are not sacred and absolute, but are devices which humans use to get along cooperatively. Thus, it is permissible to change rules if everyone agrees. Moreover, younger children base their moral judgments mostly on consequences, whereas older children on intentions.

The theory of Piaget has been further developed by the significant work of Lawrence Kohlberg (1973). Kohlberg did a longitudinal and cross-cultural study using hypothetical moral dilemmas. By analyzing the responses of the subjects, Kohlberg came to the same conclusion: that moral thinking develops over time and goes through a predictable sequence of developmental stages. He discovered **six stages of moral development** (Kohlberg, 1973; Kohlberg & Hersh, 1977), indicating how one's moral reasoning is structured and how moral judgment is justified. Of these stages, only the first three share features with Piaget's stages. These stages are hierarchical, which means it is impossible to skip a level, and the movement is always forward, to a higher and more mature stage.

The **stages of moral development** identified by Kohlberg (1973) are the following, grouped by three levels of morality (p. 499):

"**Pre-conventional Level**

At this level, the child is responsive to cultural rules and labels of good and bad, right or wrong, but he interprets the labels in terms of either the physical or hedonistic consequences of action (punishment, reward, exchange of favors) or the physical power of those who enunciate the rules and labels. The level is divided into the following two stages:

Stage 1: The punishment and obedience orientation. The physical consequences of action determine its goodness or badness regardless of the human meaning or value of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority (the latter being stage 4).

Stage 2: The instrumental relativist orientation. Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human

relations are viewed in terms like those of the marketplace. Elements of fairness, of reciprocity, and of equal sharing are present, but they are always interpreted in a physical pragmatic way. Reciprocity is a matter of "you scratch my back and I'll scratch yours," not of loyalty, gratitude, or justice.

Conventional Level

At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order, and of identifying with the persons or group involved in it. At this level, there are the following two stages:

Stage 3: The interpersonal concordance, or "good boy-nice girl" orientation. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or "natural" behavior. Behavior is frequently judged by intention—"he means well" becomes important for the first time. One earns approval by being "nice."

Stage 4: The "law and order" orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority, and maintaining the given social order for its own sake.

Post-Conventional, Autonomous, or Principled Level

At this level, there is a clear effort to define moral values and principles which have validity and application apart from the authority of the groups or persons holding these principles, and apart from the individual's own identification with these groups. This level again has two stages:

Stage 5: The social-contract legalistic orientation, generally with utilitarian overtones. Right action tends to be defined in terms of general individual rights, and

standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a corresponding emphasis upon procedural rules for reaching consensus. Aside from what is constitutionally and democratically agreed upon, the right is a matter of personal "values" and "opinion." The result is an emphasis upon the "legal point of view," but with an emphasis upon the possibility of changing law in terms of rational considerations of social utility (rather than freezing it in terms of stage 4 "law and order"). Outside the legal realm, free agreement and contract is the binding element of obligation. This is the "official" morality of the American government and constitution.

Stage 6: The universal ethical-principle orientation. Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency. These principles are abstract and ethical (the Golden Rule, the categorical imperative); they are not concrete moral rules like the Ten Commandments. At heart, these are universal principles of justice, of the reciprocity and equality of human rights, and of respect for the dignity of human beings as individual persons."

In this cognitive developmental process, the **advance to higher stages** is considered significantly valuable. This is better illustrated in the following statement (Kohlberg, Kauffman, Scharf, & Hickey, 1975):

> 'Higher stages are more logically adequate. Each of them reflects a more inclusive and more mature conception of the complexities of problems and relationships than the previous ones. (...) Movement to higher stages is natural. (...) individuals naturally tend to develop increasingly more mature ways of solving moral or intellectual problems (...) Furthermore, individuals show a preference for reasoning one stage above their own when they are exposed to it. (...) The stages are universal. Progression through the stages is a pattern of growth common to every group of humans (...) in a direction which is positive for all human beings. (...) Movement to higher stages leads to more consistent and responsible behavior (...) Moral growth is rehabilitative. (...) once a person has reached a given higher stage he will always be able to see the world and his decisions in those terms'

In this approach, two aspects can be distinguished as educational priorities. The first is the aspect of the personal development of the individual, in the pursuit of dealing autonomously with moral issues, and the second is the aspect of society, enhancing prosocial feelings and guiding towards the notion of universal justice (Schuitema, Dam, & Veugelers, 2008a). These two objectives require further clarification. **Moral autonomy** is described as acting according to moral principles constructed independently by the individual for him/herself, and not according to external rules, laws or any determinations of nature. This authority for one's moral feelings, thoughts and actions is better described as follows (Tappan, 1991, p. 7): 'To claim such authority means, for one thing, to clearly express and acknowledge one's own moral perspective. It also means to honor, and thus authorize, what one thinks, feels, and does in response to a moral problem or dilemma, even in the face of conflict and disagreement. And, it means to assume responsibility and accountability for one's moral actions, and for acting on behalf of one's moral perspective.' Evidence suggests that individuals who experience little or no moral authority, and do not assume responsibility for their actions, are likely to act in harmful ways when in crisis situations (Noddings & Witherell, 1991). As for the societal goal, the main argument of Kohlberg (1971) is that education for moral development is in fact, education for justice in a culturally universal sense. Kohlberg's concept of **justice** follows the philosophical approaches of Kant and Rawls, the principles of Gandhi and Martin Luther King, as well as the educational claims of Dewey and Plato; treating the claims of all parties in an impartial manner and respecting the basic dignity of all people as individuals. Moral Developments' justice is thus considered a 'universal' value. However, this argument together with other elements of the theory has been criticized.

Gilligan (1977, 1982) criticized Kohlberg's work for his exclusive use of males in his original theoretical study. Based on her own study of girls and women, she proposed that females make moral decisions based on the development of the principle of care rather than justice. More precisely, her research (1982) focused on analyzing structured interviews of adolescent subjects discussing moral conflicts, with the aim to 'investigate the relationship between conceptions of self and morality and to test their association with gender and age' (Gilligan, 1988, p. 8). Gilligan distinguished between **two different moral voices; the ethics of rights and the ethics of care**, for males and females respectively (Gilligan, 1987); 'One voice speaks of connection, not hurting, care, and response; and one speaks of equality, reciprocity, justice, and rights' (Gilligan,

1988b, p.8). These two different voices are complementary rather than opposed, and most subjects can analyze a situation from either perspective (Gilligan & Attanucci, 1988), as a preferred, more accessible and better understood voice (Gilligan, 1988). Moreover, whereas both genders are able to use both perspectives, men rarely rely on the care perspective for taking and justifying decisions. This different perception of morality also changes the stages of moral development. Gilligan's moral reasoning model (1982) parallels Kohlberg's model, but includes three levels of moral development (see e.g. Reiter, 1996, p. 37).

Following the principles of the approach, the educator's assignment is to enhance students' development from lower to higher stages of moral reasoning. To achieve this, the educator must play a deliberate and relatively neutral role that will allow her to explain, suggest, criticize and evaluate, but not directly impose a viewpoint or value. This is similar to the method of Socrates, as asserted by some authors (Hersh, Paolitto, & Reimer, 1979; Wilcox, 1988). This is better understood in the following statement: 'The method is also the dialectic process of Socratic teaching. The students give a view, the teacher asks questions which get them to see the inadequacies of their views, and they are then motivated to formulate better positions' (Sharma, 2005, p.52). What makes Kohlberg an opponent of indoctrination is the possibility that the teacher imposes her own personal beliefs which might be inadequate, based on the principles of moral development. However, as illustrated, justice is proposed by the theory as an absolute value, claiming that moral education for justice is legitimate. Kohlberg, recognising this contradiction, defined his approach as 'partly indoctrinative', in the direction of justice, democracy and care (Kohlberg, 1978).

Furthermore, in his 'Revisions in the theory and practice of moral development', Kohlberg (1978) recognized that, even though his moral stages were valuable for research purposes, they could not serve as a sufficient guide for moral educators. He claims that the moral stages are missing the connection with moral action, and moral content, whereas school educators deal with concrete moral problems, related to direct action and value content. For example, if children are engaged in stealing, cheating, or being aggressive, the educators cannot wait till they reach a higher stage of development. As for the role of the teacher, he notes that 'the educator must be a socialiser, teaching value content and behavior, not merely a Socratic facilitator of development. In becoming a socialiser and advocate, the teacher moves into "indoctrination," a step that I originally believed to be invalid both philosophically and

psychologically' (Kohlberg, 1978). Yet, moral development advocates do not support the behaviorist approach for individual moral conduct. Instead, Kohlberg became engaged with a more group approach, moving in a sociological rather than psychological direction. Indeed, he examined the *moral atmosphere* of a group or community, and the concept of *socialization* (Higgins, Power, & Kohlberg, 1984; Jennings & Kohlberg, 1983). To this end, Kohlberg and his colleagues set up a special democratic high school group and actively encouraged the students to think of themselves as a community. This project, called *The Just Community*, is a radical experiment in democratizing schools based on the approach of moral development: 'Democratic governance stands at the heart of the just-community approach. For students and teachers to overcome their reliance on traditional authority patterns, they have to learn to democratically share the responsibility for decision making.' (Hersh et al., 1979, p. 235)

The Just Community Model mostly addresses adolescent students to enhance their development from lower to higher stages of moral reasoning. Advocates for the Just Community assert that, through democratic social interactions and lived moral dilemmas, students can clarify and develop their moral thinking, listen, and respond to other points of view. The keystone of these schools is the regular community meetings, in which students discuss and take decisions about essential school policies. In Just Community schools, students and teachers have the same basic rights and a social contract defines everyone's rights and responsibilities. Other social features include fairness committees–to resolve conflicts among students, or students and teachers, and advisories–to discuss students' own problems. There are many examples of Just Community high schools[42], as well as Just Community programs in prisons. They all emphasize students' deliberation on moral dilemmas within real-world situations, as well as issues like freedom combined with responsibility, cooperation over competition, and the balance between individual needs and those of the community.

[42] The first just community school was founded in 1974, in the city of Cambridge, Massachusetts; its principles can be traced in (Nucci, Krettenauer, & Narvaez, 2014, p. 78).

2.1.2.2. Common and Recommended Practices

> *'Moral growth cannot be directly taught by preaching and reward. Instead, the moral development programme tries to provide inmates with the elements of experience they have missed and which have led to moral stagnation.'*
>
> *(Kohlberg, 1986, p. 257)*

Since all people have the capacity to progress through the sequential moral stages, the aim is the exposure of the learners to higher levels of moral thinking. Thus, the recommended practices aim to stimulate critical thinking and complex moral reasoning patterns. Originally, to promote moral reasoning, Kohlberg focused on peer-group discussions. His research was based on moral dilemmas, e.g. the Heinz dilemma, entailing open-ended moral problem stories. Apart from dilemmas, cognitive conflict resolution has also been used for moral growth. Gilligan's study was based on the analysis of moral conflicts by the interviewers, through narrations of their experiences, thoughts and actions. Great importance has been given, moreover, to role taking to facilitate the moral agents to feel as in the position of others. In the second generation of Kohlberg's educational interventions (Kohlberg & Hersh, 1977), the social environment started playing a more significant role, expanding the focus from the development of moral reasoning to the incorporation of moral behavior and socialization. This attempt resulted in the implementation of Just Communities; discussions and responsible decision-making became essential tools for creating a fair and democratic community.

A substantial number of studies confirm that moral development interventions do successfully lead to development (Berkowitz, Gibbs, & Broughton, 1980; J. C. Gibbs., Arnold, Ahlborn, & Cheesman, 1984; Maitland & Goldman, 1974; Perret-Clermont, 1980), fairly consistently, and more effectively than alternative strategies such as direct reinforcement (McCann & Prentice, 1981). In the next paragraphs I analyze each of the above practices.

xi. Moral dilemmas

Kohlberg's research is based on moral dilemmas, entailing open-ended moral problem stories. Moral dilemmas are a fundamental strategy for the development of moral reasoning. Dilemmas are selected in accordance with the developmental stage of the learners, and learners can be exposed to the next stage up. Moral dilemmas are usually embedded in stories (Biskin & Hoskisson, 1977; Upright, 2002). Kohlberg in his

studies, used the well-known Heinz dilemma, which I present here as an example (Gibbs, Basinger, Grime, & Snarey, 2007, p.449):

> "In Europe, a woman was near death from cancer. There was one drug the doctors thought might save her. A druggist in the same town had discovered it, but he was charging ten times what the drug cost him to make. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get half of what it cost. The druggist refused to sell it cheaper or let Heinz pay later. So Heinz got desperate and broke into the man's store to steal the drug for his wife. Should Heinz have done that? Why or why not?"

This story generates many ethical questions, for the moral agents to reflect upon (Kohlberg, 1984, as cited in Pressley and McCormick, 2007, p. 75-76): "Should Heinz steal the drug? Why or why not? (…) If Heinz doesn't love his wife, should he steal the drug for her? (…) Suppose the person dying is not his wife but a stranger. Should Heinz steal the drug for the stranger? (…) Is it important for people to do everything they can to save another's life? (5) It is against the law for Heinz to steal. Does that make it morally wrong? (…) In general, should people try to do everything they can to obey the law? (…)" The role of the educator is to support the process of moral reasoning by presenting arguments of the higher-stage reasoning; yet, these can also be presented by other participants during the discussion.

Finally, a substantial number of studies concerning the conditions that allow moral developmental growth, conclude that the best influence is achieved when people are actively confronted with meaningful real-life dilemmas rather than with artificial hypothetical situations (Walker, de Vries, & Trevethan, 1987). It is, moreover, noteworthy that intervention programmes work best with adults (over 24 years old) and when people are continuously confronted with dilemmas for at least three months (Schlaefli, Rest, & Thoma, 1985).

xii. Conflict Resolution

Moral reasoning in this approach is perceived as a cognitive change, which is generated by moral conflicts and the resolution of these conflicts. The idea is to stimulate experiences that create moral conflicts in the learners, and then help them to resolve the conflicts by reasoning at a higher stage. This positive view of conflict is also evident in

the following statements (Berkowitz & Gibbs, 1985): 'Somewhat akin to weightlifters and bodybuilders who claim that there is "no gain without pain," many developmentalists argue that there is "no growth without conflict". (...) This conflict functions as the potential fuel or impetus for growth. Conflict therefore is viewed as a developmental stimulus, rather than as a psychological breakdown.' (p. 71-72) Moral development emerges as the individual discovers inadequacies in her present stage of moral reasoning, when applied to particular moral problems she might face. Hence, given that the person is ready for this development, they construct a more adequate reasoning in order to, first, solve the current complex problem, and second, alleviate the imbalance.

Moral conflicts can be derived from two possible sources: a) from recognizing some self-inadequacy in difficult moral situations – when some unexpected factor from the physical environment violates 'the structurally generated expectations of the individual' (Berkowitz & Gibbs, 1985, p.72) and causes a re-evaluation of the existing mode of thinking (Turiel, 1974), or b) from the confrontation of alternative points of view during e.g. a discussion (Berkowitz & Gibbs, 1985). This position actually has its origins in Piaget and his theory of *equilibration*[43] (1960). This practice is applied in the *Just Community* schools; the typical mechanism is exposing individuals to other viewpoints in order to question and rethink their own positions, while encouraging discussions on personal dilemmas in small groups, or, on policies in community meetings (1975).

xiii. Role-taking

One of Kohlberg's suggested strategies to foster empathy and compassion is role-taking, which should involve 't & Kohlberg, 1983). This is "taking the attitude of others, becoming aware of the thoughts and feelings of those others, and putting oneself in their place' (Day, 1991, p.306). It is believed that role-taking is crucial for restructuring and advancing moral thought, as well as reaching fair decisions. Here is an example (Sharma, 2005, p.36):

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[43] The Piagetian notion of 'disequilibrium' refers to the experience of tension when new information and experiences cannot fit into the individual's present cognitive structure, or in other words, when the individual cannot make sense of a new experience.

> ‘In the Heinz dilemma, this would mean that all parties - the druggist, Heinz, and his wife – take the roles of the others. To do this in an impartial manner, people can assume a “veil of ignorance”, acting as if they do not know which role they will eventually occupy. If the druggist did this, even he would recognize that life must take priority over property; for he wouldn't want to risk finding himself in the wife’s shoes with property valued over life. Thus, they would all agree that the wife must be saved - this would be the fair solution.’

Switching perspectives impartially and taking the position of all parties in a moral conflict, reveals how we order our moral priorities (Bandura, 1991). However, apart from impartiality, finding a just solution also requires equality and full respect to all; e.g. ‘if the wife were considered of less value than the others, a just solution could not be reached’ (Sharma, 2005, p. 36). In real life, social experiences and relations create biases that do not allow much impartiality and reversibility of roles. However, asking people from our surroundings to take another person’s position is commonly used as a means of strengthening empathy and making an argument (Upright, 2002). The concept of role-taking emphasizes both the cognitive and the affective sides of social interaction. Hume (1957) was one of the first to examine how role-playing could produce empathic effect, which is inherent in human nature. According to Hume, the tendency to empathize is based on the imagination of role-taking: ‘Owing to the similarity among people, when one imagines oneself in another’s place, one converts the other’s feelings into mental images that then evoke the feeling in oneself’ (Hoffman, 1982, p. 86).

Role-taking also helps to organize and improve the structural relationship between self and others (Day, 1991). This is because all social interactions involve understanding of the societal roles of which one is a part. Role-taking progresses this understanding to more accurate representations, which in turn make the transition to moral change and action easier[44]. The cognitive aspect of role-taking also results in social-interpersonal development, as highlighted by Robert Selman (1971, p.80): ‘Development of

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[44] As stated, “The cognitive-developmental approach assumes that development consists in moves from less to more accurate representations of reality, which in turn results in moves from less to more adequate operations in it. (...) The concept and activity of role-taking is crucial to development because it describes the circumstances through which accuracy of representation is achieved, and relationship of representation to behavior made explicit. From such interactions come sustained changes in principles that in turn change behavior in relationships” (Day, 1991, p. 308).

reciprocal role-taking ability implies an increasingly accurate perception of what another will do in a given situation, and specifically of how one's own actions will affect the attitude of another toward oneself.'

In general, Kohlberg and his colleagues view role taking as an essential experience for stimulating moral growth. In *Just Communities*, role-taking opportunities are provided through discussions of moral and personal issues in which each participant is encouraged to present their point of view and understand other points of view (Kohlberg et al., 1975). Participation in a group is also considered important as the individual not only interacts with the other members in order to make decisions, but also feels responsible for these decisions and for the group (Day, 1991).

However, simple perspective shifting does not guarantee consensus on what moral aspects of a situation are relevant, or which principles should take precedence, unless there is already prior agreement on this (Bloom, 1986). An example given by Bandura (2014, p. 4), refers to the abortion issue; even if the people holding pro-abortion views and anti-abortion views shift their roles, there will be no consensus, as the first give priority to the freedom of women and the second to the personalisation of fetuses.

xiv. Discussions

A substantial amount of literature on moral discussion interventions has been generated (Berkowitz, 1981; Berkowitz & Gibbs, 1983; Blatt & Kohlberg, 1975; Niles, 1986; Schuitema, Dam, & Veugelers, 2008). A powerful educational asset of discussions is that they can potentially combine many other strategies, e.g. analysis of moral dilemmas, understanding another person's viewpoint, cognitive conflicts, exposure to higher stages of reasoning, resolution of moral, and even social, conflicts.

In moral education it is important for the discussions to be held in a democratic environment, in which the participants can express their viewpoints and share their arguments freely (Blatt & Kohlberg, 1975). For the practice of discussions in the *Just Community*[45] setting, a number of considerations have been also made (Oser, 1996, p.620); ' (…) all participants must practice positive interactive communication. (...) not to repeat what others already have said, not to hurt others, to listen to the opponents, to

[45] Oser (1996) refers to the Just Community school as a 'round table' situation, in a symbolic sense, meaning that it is a democratic decision-making institution following a culture of discussion.

be open to arguments that contradict one's own position, to learn how to convince teachers and peers and how to resist pressure to subscribe to a certain opinion.'

Moreover, there is the right for veto, which states that the procedures can be interrupted at any moment if a participant senses that the dignity e.g. of other members is jeopardized. Generally, when conflict arises it is recommended to gather the members involved and make a common effort to resolve the conflict. In this case, the educator must facilitate the dialogue in a way that all claims, needs, and vulnerabilities can be discussed, openly and with trust. The aim is to find the best solution in moral terms, with the moral criteria of justice, care and truthfulness.

What has also been found through studies is that, to stimulate cognitive disequilibrium through discussion, it is best when the discussion about a moral dilemma is between two people of adjacent stages (Berkowitz et al., 1980; Rest, Turiel, & Kohlberg, 1969), or when there are different forms of controversial discussion (e.g. all pros on one side and all cons on the other side of the classroom; group work; partner discussion; panel discussion, etc. (Oser, 1996b)). It is furthermore suggested that discussing moral issues should be linked to moral action, as a way to foster responsibility in students.

xv. Decision-making

Decision-making seems to be a cornerstone for democracy and justice (Kohlberg et al., 1975, p.247):

> 'We can see that democracy is central to moral development if we see that the heart of morality is a sense of fairness and justice. Morality means a decision of what is right where there is a conflict between the interests and claims of two or more people. Justice means fairness in deciding the conflict, giving each person his due and being impartial to all. Democracy is a form of government designed so that the decision-making process will be considered fair by all. Only in a democratic setting can [people] have any sense of living in a community which is fair.'

As Kohlberg further analyses, (1975) moral decisions involve considering other people's rights as well as the obligations to them. Thus, a fair decision can only be taken through an impartial evaluation of all people's rights. This is also why in democratic environments the ability of each individual to make decisions is essential.

Additionally, the practice of decision-making should be strongly connected to moral action and the competence of moral judgment (Althof, 2003; Blasi, 1983; Crawford, 2001; F.Oser, 1996; Power, Higgins, & Kohlberg, 1989). More specifically, Oser (1996) argues that although moral judgment might affect the way actions are interpreted and justified, what actually counts and remains is moral action itself. Another positive aspect of decision-making is that it provides the individual with the actual responsibility for the decisions as well as for his/her commitment to them. It has been observed for example, that children who belong to families (or other groups) in which they had some responsibility for decisions, advanced furthest in moral character (Kohlberg et al., 1975). Yet, decision-making also requires the responsibility of being informed and using this knowledge. This aspect is extremely significant[46].

The decision-making process is obviously emphasized in the *Just Community* setting, as the claim of these schools is to offer an 'actual experience of participatory democratic decision-making' (Jennings & Kohlberg, 1983, p.34). The focus thus, is not just on the individual ability to make decisions, but principally on structuring a democratic environment and an open classroom climate, stressing care and justice in all the participants' relations (Enright, Lapsley, Harris, & Shawver, 2010). This is further demonstrated in the following example: 'Democratic governance stands at the heart of the Just Community approach. For students and teachers to overcome their reliance on traditional authority patterns, they have to learn to democratically share the responsibility for decision making' (Hersh et al., 1979, p. 235).

In essence, in this democratic context, students can make their own choices about the curriculum (through a problem-based approach), as well as about the overall programme development, their maintenance and change (Jennings & Kohlberg, 1983; Schuitema, Dam, & Veugelers, 2008). This is done with the equal participation of the administrators and the staff. Finally, it is noteworthy that once community decisions are taken, they should be supported by all community members (Kohlberg et al., 1975).

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[46] The following statements clearly emphasize this aspect: 'The core of immorality is not wanting to know, blinding oneself, acting against one's knowledge.' (Blasi 1983, p.206); "Citizens need disciplinary knowledge just as much as they need deliberative experience and skill" and "making decisions without knowledge - whether immediate knowledge of the alternatives under consideration or background knowledge - is no cause for celebration. Action without understanding is not wise action except by accidents." (Parker, 2005, p. 350, found in Althof & Berkowitz, 2006, p.502).

xvi. Analysis of narratives

Storytelling in moral education has a long and universal tradition. As argued, narrative is central to the study as well as to the teaching of morality (Tappan & Brown, 1996). Appropriate stories must be of interest to the students and must have 'an obvious problem in which the main characters have to choose between two or more justifiable positions with the ultimate solution in mind' (Upright, 2002, p.17). Similarly, other authors (Galbraith & Jones, 1975) support that stories for cognitive moral development must include a real conflict for the main character, and must generate differences of opinion among students about the appropriate resolution.

As for the role of the educator, it is suggested that when she feels that the story does not create the necessary conflict, additional aspects of the story can be introduced, either by continuing the story or by altering certain parts of it (Upright, 2002). The focus is on changing the view of some students and on leading them to a discussion. Moreover, to make the story more 'memorable and personal' (Upright, p. 19), students can be asked to complete the original story, modify the original dilemma,; write a new one involving the same characters (Haven, 1999), draw pictures of the story, explain what they learned in their own words, or be encouraged to share the dilemma with others.

Apart from the published stories available for analysis, moral stories can also be created by the students narrating personal experiences. Starting from the fact that people frame all their experiences and thoughts in the form of stories, the influential study of Day and Tappan (1996) points out the utility of the narrative approach in psychology. Narrative helps us to understand and interpret human behavior[47], both our own and others, by expressing our natural impulses, setting them in a context─including the context of time, and demonstrating what appeals more to us. '"Narrative thinking' (Vitz, 1990) is also recognised as a major form of cognition, helpful for moral development. Narrative thinking is the way somebody thinks to build a narrative; 'It is a description of reality, and it is a way of seeing that aims at verisimilitude' (p. 710). Subsequently, the author or storyteller always imposes their particular moral perspective, giving the plot, the

[47] What is remarked is that apart from the power of narrative for representing and giving meaning to the human experience, 'human action has an intrinsic narrative structure in and of itself', as human actions are in fact 'enacted narratives' (Tappan, 1991, p. 9).

meaning and the formal coherence of the story events (White, 1981 as cited in Tappan, 1968).

xvii. Living in a Moral Community

Following the basic principle of the moral development theory, everyone – young or old, educator or student, in stage 1 or 6 - can grow morally, and this growth can best be achieved in a group (Kohlberg et al., 1975). Living in a moral community gives individuals the opportunity to experience the values of justice and democracy in real life, with all difficulties and gains implied. As asserted, "democracy can only be taught in a democratic environment" (Battistoni, 1997; as cited in Schuitema, Dam, & Veugelers, 2008, p. 6). This climate is also believed to enhance students' self-confidence.

For creating a community 'perceived as fair and concerned', Kohlberg provides a list of conditions (Kohlberg et al., 1975, p.257). The most significant of these conditions are: fairness of the rules, democratic quality of the group processes and equal treatment of all members[48] individual and collective responsibility, actual authority over many aspects of its life in order to confront moral dilemmas of real significance, and a climate of trust. Most importantly, participants are encouraged to actively express their opinions, and create the broad principles and rules of their community by themselves. In group discussions, the members can point out to one another actions which have not been consistent with their own moral judgment and values. This is an attempt to directly stimulate moral behavior and moral judgment, and to create a community in which people care about living up to the moral expectations of one another. Moreover, anyone should feel they have the right to criticize and correct the moral behavior of others. As for breaking the rules of the community, this can only be seen as an 'affront to the entire group' (Kohlberg et al., 1975, p. 258).

Furthermore, the members of the community are expected to understand the moral development theory, as a common frame of reference for all members of the

[48] Although in cases of conflict educators have 'a different kind of authority', helping to resolve conflicts in a fair manner, supportive of the community.

community. Subsequently, the group will naturally raise its moral level as a whole, by supporting and listening to the reasoning of higher stages (Oser et al., 2008, p. 409).

xviii. Cooperative learning

In many of the curricula promoting moral development, students have to work in small groups. In a study addressing ethical dilemmas in biology (Murray, 1999), for example, groups of four students choose an issue and work together on a presentation; two members of the group consider a stance in favor of the issue and the other two against it. The principal benefits of cooperative learning are the stimulation of students' critical-thinking, the development of their communication skills, and the enhancement of perspective-taking. Furthermore, working together stimulates students to think in a more active way about moral issues as they consider the views of the others (Tredway, 1995), as well as attempt to resolve differences and tolerate disagreement (e.g. Hicks 2001, McQuaide et al. 1999 as cited in Schuitema et al., 2008). Upright (2002), using this practice in elementary students, distinguishes two types of groups; homogenous–in which all members agree on the solution of the dilemma, and heterogenous–in which members disagree. In the first case, opinions can be strengthened, whereas in the second case, students develop skills to personally defend their position.

Co-operative learning is undoubtedly connected to discussion, while it also creates many role-playing opportunities, which should be encouraged. It is suggested that co-learning sessions be followed by reflection on the collaborative process and the quality of the group work done.

2.1.2.3. Criticism of Moral Development

The cognitive developmental approach has advantages both for education and psychology. What is particularly influential is that knowledge is constructed through stimulating cognitive experience (as already introduced by Piaget), and that reasoning is essential for making moral decisions. The advocates of this theory generally believe that moral education is not possible without a critical appraisal of moral norms and rules. Thus, the educator's intervention is closely and interdependently associated with the students' moral development, while both of them remain critical (DeVries & Zan, 1999); the one is continuously giving meaning and stimulating the other. The educational process consequently, is transformed into a ground for discussion and

reason-based dialogue that respects the positions of all parts equally and inevitably leads to learning.

This VE approach, as already shown, rests on a considerable body of research, and has been studied in practice[49]. Indeed, Kohlberg was always eager to see his theory tested and critiqued, and he personally spent many years practicing moral development in schools and prisons. The criticism that his theory received led him to new findings and revisions.

That said, Lawrence Kohlberg, in his 'Revisions in the theory and practice of moral development' (1978), withdrew his charges on indoctrination, and claimed his theory to be partly-indoctrinative, with some conditions: 'I thought indoctrination invalid philosophically because the value content taught was culturally and personally relative and because teaching value content was a violation of the child's rights. I thought indoctrination invalid psychologically because it could not lead to meaningful structural change. I no longer hold these negative views of indoctrinative moral education, and I now believe that the concepts guiding moral education must be partly "indoctrinative". (...) I now believe that moral education can be in the form of advocacy or "indoctrination" without violating the child's rights, as long as teacher advocacy is democratic (or subject to the constraints of recognising student participation in the rule-making and value-upholding process), recognising the shared rights of teachers and students' (p.84-85). However, the Kohlbergian theory received criticism for giving too much power to the moral learners. What is asserted for example, is that some rules should be non-negotiable, and that students should not be allowed 'adult prerogatives' (Wynne, 1991). Below, I explicitly present the most significant claims regarding the deficiencies of this democratic and partly-indoctrinative approach.

i. Challenges of democracy

The most important chance that the developmental approach offers to students, is the chance to participate in a democratic community. However, this has also often been criticized, as democratic processes entail difficulties that might not be well-addressed by communities of moral development. To begin with, all members should have equal

[49] Blasi, 1980; J. Day, 1989; J. Gibbs et al., 2007; Hersh et al., 1979; Loxley & Whiteley, 1986; J. Rest, 1979, 1986; James R Rest, Narvaez, Thoma, & Bebeau, 2000

democratic means to defend their views, but they should also have the ability to live with the decision of the majority and its consequences; 'There are instances when differences in standpoints persist and a decision has to be made by majority vote. Campaigning for competing positions is justified and students should learn the participatory skills necessary to influence policies and decisions (public speaking, petitioning, lobbying, building coalitions). Democracy does not mean absence of power but should be open to the question of how power is used; majorities are not necessarily right. Democratic procedures, however, have to be based on some fundamental rules concerning the duties and the inalienable rights of all persons concerned' (Muller, 1995, p. 127, as cited in F. K. Oser et al., 2008).

However, while democracy entails the full participation of members to arrive at a consensus, great difficulties arise when making decisions based on the majority (Murray, n.d.). Indeed, in Just Community practice there have been cases of decision-making in which reasonable claims of the minority (victims of theft to be recompensed by all members of the school community) have been oppressed by interests of the majority. This is similar to what is called the '*tyrannie de la majorite*' (see Berlin, 1959; Constant, 1806; De Tocqueville, 1835; Hayek, 1960; Mill, 1859; Spencer, 1850); 'A majority, which does not at least partly include the will of the minority, tends to become a tyranny' (Oser et al., 2008, p.403).

In an attempt to confront and solve this problem of democracy, some authors (Lickona & Davidson, 2005) have suggested that 'voting works best when conflicting parties agree to vote and to live with the outcome. When there are deep divisions of conscience about an issue, striving for consensus, or at least compromise, is a much better decision-making process than voting, because it honors differences by seeking a resolution that incorporates conflicting perspectives to the greatest extent possible' (p. 189).

ii. Indoctrination towards justice and reasoning - Western values

Although Kohlberg's approach has been criticized for not being indoctrinative, other critical reviews dispute it for the opposite reason; for pressing for justice and forcing reasoning and rationality as the 'natural' way to move through the stages. Some authors (Reimer, Paolitto, & Hersh, 1983) for example, question whether the explicit encouragement of students to think of themselves as a community is not a form of indoctrination. There are many objections also to rational reasoning, as many theories of

morality do not accept reasoning as the core basis of moral judgment. For example, the theory of social intuition believes that truth is self-evident and that people know what is wrong by intuition and emotion, even if they do not know why. Moral reasoning then, instead of an a priori rational process to grasp truths, is considered 'an ex-post facto process used to influence the intuitions (and hence judgments) of other people' (Haidt, 2001, p.816). As it is illustrated, the conflict between reason and emotion has also been frequent in scientific literature.

What is further doubted is the cultural universality of the Kohlbergian theory. Although the research has been applied to variant cultures, it is claimed that Kohlberg's stages are not culturally neutral. They imply a preference for moral adequacy and reason, which are typical Western views (Bloom, 1986; Shweder, 1982). Or, in other words, 'Societies that are less inclined toward ethical abstractions and idealization of autonomy come out looking morally underdeveloped even though in their moral conduct they may exhibit fewer inhumanities than Western societies that are ranked as morally superior' (Bandura, 1991, p. 4).

In addition to the above, it is believed that the emphasis on the development of critical skills and the rejection of obedience and conformity, does not promote the internalization of the values inherent in the tradition and the culture of every society.

iii. Moral judgment is not sufficient for moral action

One of the core criticisms of Kohlberg's theory is that it neglects moral behavioral content while focusing on moral reasoning skills (Doyle 1997, Lickona 1999, Ryan 1996, as cited in Schuitema, Dam, & Veugelers, 2008) and generally, that the moral stages do not account for moral action. This weakness is admitted also by Kohlberg himself (Kohlberg, 1971). However, his initial position is that as the higher-up stages employ increasingly more stable moral standards (e.g. from stage three that is based on interpersonal feelings, to stage four which is about law and rules), moral behavior is expected to also be more consistent and responsible as people move up the sequence (Kohlberg et al., 1975). Research supporting this initial hypothesis however, does not provide clear evidence either[50].

[50] I present here though, as an exception, a study that took place in a prison situation (Lawrence Kohlberg et al., 1975) and had the following results: "(...) higher-stage persons are

Thus, as Blasi (1980, 1983) sets forth, there is an empirical gap between moral judgment and action. What he observed is that often individuals do not act in accordance with their reasoning, therefore moral judgment alone might not be sufficient for moral action. The factor then, that plays the most significant role in this relation, is the extent to which individuals themselves feel the need to be consistent and bring their moral thoughts and actions into line (Blasi, 1980; L. Kohlberg & Candee, 1984). Bandura (1991) also disagrees with the above hypothesis of Kohlberg that higher-stage reasoning is functionally superior. He argues that although developmental stages determine the reasons given for taking actions, they do not explicitly define what actions should be taken. Therefore, as he continues, 'Different types of moral thinking can justify stealing, cheating on income taxes, and military bombing of foes. Immorality can thus be served as well, or better, by sophisticated reasoning as by simpler reasoning' (Bandura, 2014, p. 3).

Eventually, even Kohlberg admitted that there are indeed factors other than justice-reasoning that influence moral behavior (Kohlberg, Levine, & Hewer, 1983).The relationship between cognition and action has also been investigated by Blasi (1983), concluding that 'concrete choices and general criteria are independent of each other' (p.197). Therefore, it should not be expected that in any specific moral situation, there is only one content decision cognitively deducted. Oser (1996) also does not understand why higher level subjects, who see the problems' complexity, should feel more capable to act than the ones at lower stages. He argues that while moral judgment schemes can be considered 'a deep structure of world interpretation' and justification, they finally only play a role on this level and are not connected to action (p.271). As he notes, 'higher stage citizens in Nazi Germany had the same difficulties in acting according to their judgment as lower stage people' (p.272). Thus, from an educational perspective, moving students toward a higher developmental stage should always be attempted in relation to action and moral performance.

iv. Neglect of social influences and real life conditions

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much less likely to cheat, are more truthful, and are more likely to carry out without compulsion tasks they have agreed to undertake than are lower-stage individuals. (…) Inmates who move to the conventional level through the Moral Development Program are more likely to stay out of legal difficulty than those who do not move." (p.255-6)

Kohlberg's approach emphasizes reasoning, and thus, is criticized for neglecting other aspects of morality. One of these aspects that possibly affect moral judgment and action is the personal subjective dimension of the learners, as well as their interactions with their social environment. This aspect could possibly also explain why people reason differently when they face real life situations, as opposed to hypothetical dilemmas (Higgins et al., 1984). As Bandura (1991) states: 'The way in which moral principles are applied in coping with diverse moral dilemmas varies, depending on situational imperatives, activity domains and constellations of social influence' (p. 2). But how exactly does social influence affect people's moral judgment? As observed and noted by Gilligan (1982), the abstract nature of the hypothetical dilemmas tends to elicit considerations towards the 'justice moral orientation', whereas real-life dilemmas, due to their contextualized nature including the social influences, elicit considerations towards the 'care orientation' (p. 73). Another argument is that moral decisions are very different when people have to live with the real consequences of their choices, than when dealing with hypothetical dilemmas, in which people might offer solutions based on higher-level reasoning; 'as the severity of personal consequences increases, people favor self-interest over principled reasoning' (Bandura, 1991, p. 5, referring to Sobesky 1983).

In general, moral development fails to consider the general social context as a factor influencing peoples' moral judgment. According to Tappan (1991) this is why moral autonomy is considered too abstract, epistemic and 'transcendental' by many critics (p.6), failing to acknowledge the relational, communal and socio-cultural-historical circumstances in which people are always embedded.

v. Objections with the developmental stages of morality and the moral hierarchy

Kohlberg's theory assumes that through the developmental process, moral judgments change into a series of uniform types of moral reasoning, the stages. Yet, multiple questions arise about the stages of this model, such as whether they are invariant and sequential, whether they can be used for classifying people into moral types, and why higher-stage reasoning is considered morally superior (Sichel, 1987). Indeed, in the early 1970s already, longitudinal studies conducted by Kohlberg's research group began to reveal anomalies in the stage sequence. Some researchers attempted to resolve those anomalies through adjustments in the basic Kohlberg framework (see Power et al.,

1989), while others held that what was required were substantial adjustments in the theory itself. In general, the empirical study of Kohlberg's theory relies on interviews, containing only a few hypothetical moral dilemmas and therefore, sampling a narrow range of moral conflicts. Moreover, the way that the dilemma is authored, and the additional information selected to be provided, can bias the learners towards certain moral principles.[51] This means that many factors that could significantly influence the moral decisions of the interviewers have not been considered.

Much criticism has also been received based on the argument that human moral judgment is not an invariant variable that can easily fit in typologies. As illustrated before, moral judgment can be multifaceted or display a varying mixture of reasoning, spanning several stages. In other words, 'The common finding is that adults comprehend different moral principles but use them selectively or in a complementary way, depending on the interplay of circumstances and the domain of functioning' (Bandura, 1991, p.4). It could be possible therefore, since the stages are not contradictory, that people perform moral thinking differently according to which factors are more significant to certain problems. Moreover, as Bandura argues (1991), people in most of their judgments do not use the highest mode of thinking they understand, which means that the hierarchical superiority of the moral stages is also questioned.

An additional critique of Kohlberg's theory is related to the vagueness of its principles. The principle of justice, for example, which plays a primary role in the moral development theory, does not have an exact uniform meaning, and does not provide adequate guidance for action, unless it is associated with concrete situations. For instance, as Bandura (1991) notes, in the question of what would be a just fee for a surgeon, different people based on the same principle of justice would arrive at different judgments, depending on what factors they consider more relevant and important; 'the amount and expense of past training required, operating costs, the price of malpractice insurance, the effort and risks involved, the surgeon's financial needs, the benefits to patients, the patients' financial status' (Bandura 1991, p.5[52]). What could happen then,

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[51] Kohlberg's hypothetical moral dilemmas are charged for biasing learners towards the most consensual principles. The argument is that adding more substance and complicated elements to the dilemmas can confuse the thinkers over which moral claims are precedent (Bloom, 1986; Reed, 1987).

[52] Bandura refers to an example given by Peters (1971).

given this prescriptive ambiguity of justice, is the following scenario: 'cognitively facile people can find ways to serve their self-interests under the cloak of justice or social contract. The advantaged members of a society have considerable say in how justice is defined at the operational level. Social systems that contain institutionalized inequities provide a set of social justifications that make inequitable practices appear just' (Bandura, 1986). Another example of ambiguity is Kohlberg's sixth stage, which is a rare stage and, in fact, unconfirmed (Kohlberg, 1973, p. 499). This last stage is supposed to appeal to universality and consistency, leaving behind any utilitarian principles. However, the fact that adults at this stage have only rarely been found in the empirical work as samples, did not allow Kohlberg and his colleagues to confirm the existence of the sixth stage, or define it explicitly. It remains, thus, a theoretical hypothesis, claiming an abstract greater moral adequacy. Moral development theory, therefore, needs to set more concrete principles and clearer boundaries, while also as I illustrated before, consider how morality is practiced in real life conditions.

Finally, the stages of Kohlberg have been criticized for not representing the moral thinking of the female gender. Although the evidence does not indicate significant gender differences in the stage sequence of moral development (Walker, 1984, 1986), there might be some sex-related differences in some aspects (Walker, 1989). As I have shown, Gilligan (1982) argued that the sexes differ fundamentally in their 'orientation' to moral reasoning; males typically have a justice/rights orientation and females a care/response orientation. Hence, whereas Kohlberg identifies autonomous moral thinking related to the abstract principle of justice as the highest form of moral thinking, Gilligan proposes that women are more likely to view actual caring relationships as central, with the highest stage to be a win-win resolution of moral conflicts. Hence, Gilligan (1987) objects to a universal standard of development and a single scale of measurement. This argument will be more explicitly analyzed in the next paragraph.

vi. Individuality and underestimation of care

The Kohlberg model presents moral development as a process of increasing the moral autonomy of the individual and reaching the point that the individual operates above the communal norms. This view of moral superiority has caused some objections from theorists. Here is one: 'By what logical reasoning is a morality rooted in law and order (stage 4) morally superior to one relying on social regard and concern for others (stage

3)? Minorities oppressed by a social order that benefits the majority and those subjected to the rule of apartheid would not think so' (Bandura, 1991). Or, as Reiter (1996) points out: 'The value that Kohlberg places on autonomy, reflects a societal tendency to focus on individuation and individual achievement and devaluate care-taking roles' (p.39). Similarly, Ruiz and Vallejos (1999) recognise that the cognitive model of moral development does not adequately address either the theme of compassion, or the development of empathy as an educational foundation for compassion. This insufficiency is claimed to be rooted in Rawl's theory of justice, which emphasizes the ethics of rights and provides the philosophical underpinning for moral development theory (Cole and Coultrap-McQuin , 1992, p.5 as cited in Reiter, 1996).

Gilligan (1989) also criticized Kohlberg's model for equating moral maturity with 'separation, self-sufficiency and independence' (as cited in Reiter, 1996, p. 39). More explicitly, she asserted that 'the ideals of a liberal democratic society—of freedom and equality—have been mirrored in the developmental vision of autonomy, the image of the educated man thinking for himself, the image of the ideal moral agent acting alone on the basis of his principles, blinding himself with a Rawlsian "veil of ignorance", playing a solitary Kohlbergian game of "musical moral chairs"'(Gilligan, 1987, p. 304). The significance of Gilligan's theories lies in revealing a general tension of contemporary moral theories towards 'universal and impartial conceptions of justice and rights', disregarding at the same time the interpersonal relationships (Friedman, 1993, p. 260). These two different views of ethics, hence, set two different ideals: On the one hand is the ideal of autonomy and separation, and on the other hand the ideal of a concerned and caring adult (Code, 1988, as cited in Reiter, 1996). The differences between rights-based ethics and care-based ethics expand in the views of the moral process; 'Theories of justice and autonomy understand individuals as separate and relationships as either hierarchical or contractual, whereas the ethics of care and connection perceive the self and others as interdependent with relationships created and sustained by attention and response' (Gilligan, 1988b, as cited in Reiter 1996, p.39).

Besides Gilligan, many developmental psychologists have valued the quality of care and appreciated interdependence as a reality. In their writings they focus on the affective and relational beneficial aspects of moral development (Hoffman, 1982; Noddings, 1995; Ruiz & Vallejos, 1999b). Much attention has been given for example to empathy, not only as the basis of concern for others, but also of prosocial moral reasoning and justice (Eisenberg & Morris, 2001). Affect has been additionally

confirmed as an underlying motivation for moral thought and action; people have the internal motive to consider others, and not to do them harm. Affect conflicts with the egoistic motive, but even if they choose an egoistic resolution, 'they will pay the price of feeling guilty, unless they engage in cognitive strategies to avoid guilt' (Hoffman, 1982, p. 84). In general, many theorists stress that moral judgments and reasoning would be 'empty' without some kind of benevolent feeling; 'cold calculations having little bearing on moral action' (Hoffman, 1982, p. 85). In conclusion, it is asserted that ethics of care, compared to Kohlberg's cognitive moral development theory, are more appropriate for developing complex problem resolution skills, connecting knowing skills, and exploring societal and institutional causes and solutions (Reiter, 1996).

What is also clear though is that, besides the differences, there is a close connection between care and reasoning, emotion and rationality. Both perspectives arise from similar concerns (Bartlett, 1992, as cited in Reiter 1996). Thus, compassion, although it is a feeling, is 'a feeling mediated (affected) by reason: the other person is worthy of compassion, is not a mere suffering object but a subject with a wounded, abused or frustrated dignity who demands a response' (Ruiz & Vallejos, 1999b, p. 6). It is subsequently combined with critical reflection, and notions such as 'emancipation, denunciation and commitment' (p.6). This is also recognised by Gilligan (1987), who proposes that both perspectives of moral reasoning should be valued as equally valid, and should be applied in addition to the other.

Hence, what is suggested is that moral dilemmas should be better placed in a context, and that the significance of the emotional factors in taking decisions should be fully acknowledged (Ruiz & Vallejos, 1999b). Moral education, moreover, should not set supernatural objectives and standards of excellence, but should perceive other human beings more naturally; 'as they are in whatever condition, not as some ideal being or fable' (Ruiz & Vallejos, 1999b, p. 6). Additionally, perspective taking is emphasized (Eisenberg & Morris, 2001).

2.1.3. Values Clarification

Values Clarification is a theory originally developed by Louis Raths, based on the thinking of John Dewey. Advocates of values clarification, such as Louis Raths, Sidney Simon, Merrill Harmin, Howard Kirschenbaum and others, are the strongest opponents of any form of indoctrination by the educator. This theory asserts that students should clarify their own values, and not have values imposed on them by teachers, the

community or the social environment. Hence, the role of the teacher is to remain neutral, and not be judgmental, and the practices recommended for this educational process emphasize the centrality of the individual to define his/her values.

For values clarification, values are considered products of our experiences (Raths, Harmin, & Simon, 1966). This view is built on Dewey's suggestions that reflecting on life experiences is essential for values clarity (Lipe, 2009) and explains clearly why most of the values clarification practices focus on the learners' life experiences. As values clarification has received much criticism, I present here the main arguments stressed by its opponents. However, as advocates of the theory have pointed out, 'the theory is not yet complete, but this does not mean it is "superficial"' (Kirschenbaum, Harmin, Howe, Simon, & Simon, 1977, p.743).

2.1.3.1. Principles

As the advocates of values clarification assert, individuals are exposed to a wide range of conflicting values that confuse them, especially with the increased use of technology. Adolescents are often "baffled by the sudden rush of freedom and the many bewildering alternatives', enhancing any tendencies to drink, do drugs, and do meaningless and sometimes even violent things (Simon & Bohn, 1974). In general, there are often idiosyncratic behavior patterns, inconsistency, chronic posing, and underachievement (Raths, Harmin, & Simon, 1966a). Values clarification aims to help individuals examine their values and behaviors. Society is also characterized by a conflict of values, which is in the hands of individuals to understand and resolve, through the education of values clarification. The theoretical view of both society and the individual's problems, is expertly explained below (Kirschenbaum, Harmin, Howe, Simon, & Simon, 1977, p. 743):

> 'Values clarification begins with the observation that both individuals and societies are suffering from many ailments, not the least of which are value problems. In individual lives the symptoms are apathy, flightiness, over-conformity, over-dissension, and other behaviors indicative of lack of values or of value confusion. There is a lack of perceived purpose in individual lives - a state of confusion, anguish, or suffering. Individual value problems also affect relationships with others and can contribute to considerable conflict within families and groups. Finally, individual value problems can lead to inefficiency and a reduction of constructive activity in society. Society can ill afford such a

loss. Nations around the globe suffer from similar value confusion - performing great acts of charity and construction with one hand and moral atrocities and environmental destruction with the other. The very survival of the planet is endangered by such value conflict.'

Hence, what is the aim of Values Clarification? It is to facilitate each person to think about her value confusion and become self-directing, and 'less confused' (Harmin, 1979, p. 26); 'to wrest his own values from the available array' (Raths et al., 1966, p. 10). In this way, in the place of apathy and flightiness, behavior patterns that exhibit '**more harmony within, such as enthusiasm, persistence and self-direction**' will emerge (Harmin & Simon, 1973, p. 23). With this harmony, individuals are expected to 'direct their energies and manage their lives' (Harmin, 1979, p. 23). Similarly, Kirschenbaum recognizes a dual goal in values clarification: first, that **our living will have value for us**, and second, that it will be **socially constructive** (Kirschenbaum et al., 1977). More precisely (p. 744):

'When our living has value for us, we prize and cherish more of our choices, beliefs and activities. We experience a stronger self-concept. We experience greater meaning in our lives. We are less apathetic and flighty, more purposeful and committed. This does not mean we are always "happy". It means that we are living vitally, experiencing the richness of ourselves, others, and the world around us as we move toward self-selected, meaningful goals. To be socially constructive is to act in a way that promotes the values of life, liberty (i.e. freedom, justice and equality), and the pursuit of happiness. To state it differently, to be socially constructive increases the likelihood that others will have lives that have value to them, so long as they do not infringe on the rights of others. This assertion brings us directly to the first of the criticisms of values clarification mentioned earlier.'

To identify what one considers 'value' in their life, the values clarification proponents have invented a process, the so-called **valuing process**. This process contains specific criteria that collectively define valuing. In other words, value is defined as that which results when all the criteria are satisfied. Unless something satisfies all the criteria, it is not considered a value. In the values clarification literature there are two concepts of the valuing process with some differences between them One is from Raths and his colleagues (Raths et al., 1966) and the other from Kirschenbaum and his colleagues (Kirschenbaum, Harmin, Howe, & Simon, 1977). Raths and his colleagues originally

described the process as having three dimensions: prizing, choosing and acting, with a total of seven sub-processes (p.12):

- **Prizing:** Prizing and cherishing; Publicly affirming
- **Choosing:** Considering alternatives; Considering consequences; Choosing freely
- **Acting:** Acting; Acting repeatedly and consistently

Expanding the concept of the valuing process, Howard Kirschenbaum (p.744) includes five dimensions along with 18 sub-processes, which are outlined here:

- **Thinking:** On many levels; Critical thinking; Divergent thinking; Moral reasoning
- **Feeling:** Being aware of one's feelings; Discharging distressful feelings; Experiencing positive self-concept
- **Choosing:** Goal setting; Data gathering; Considering alternatives; Considering consequences; Choosing freely
- **Communicating:** Sending clear messages, including public affirmation; Empathic listening; No-lose conflict resolution
- **Acting:** Repeatedly; Consistently; Skilfully, competently

As is clear from the above valuing process, the aim of values clarification is not to teach a particular set of values; on the contrary, it is 'based on the premise that none of us has the "right" set of values' (Simon, 1976, p. 127). Subsequently, the educators following this approach accept all viewpoints and do not try to impose their own views or any set of right values. Their objective is to help learners engage in one or more of the above processes and personally clear up the value confusion they may have, concerning already-formed convictions. In other words, in this process the educator needs to be neutral and non-judgmental. This does not mean that values clarification de-emphasises the role of the educator, but for the sake of preventing any type of indoctrination, it shifts the emphasis from the teacher as the source of moral truth, to the teacher as **clarifier**. The teacher, using proper questioning procedures, provides opportunities for the students to think through some of the confusion with which they are confronted and helps them to develop the necessary skills and become persons who have freely chosen their own values. 'In values clarification, indoctrination is so feared that the teacher must avoid moralizing, criticizing, and even evaluating' (Wilcox, 1988, p. 250). In this

sense, the approach seems to be 'values free'. The educators are only trying to teach a valuing process. It can also be considered relativistic; responses are not judged as better or worse, but each student's view is treated with equal respect.

However, value clarification is not completely values-free, according to the critical analysis of Kirschenbaum (Kirschenbaum et al., 1977). Firstly, because whatever the students' viewpoints are, they are encouraged through the valuing process to keep developing and praise their values. Secondly, in the valuing process itself there are some implicit values, such as the values of prizing, choosing, and acting. It is regarded better, for example, to choose to consider the consequences than to act without thinking, or to choose freely rather than what an authority or peer pressure would impose. According to Kirschenbaum (1977), the terminal values of the valuing process are: '**life, liberty and the pursuit of happiness'** (p.744).

Finally, regarding relativism, as I have already shown, values clarification views values as 'relative, personal, and situational'; hence, the main task of the educational process 'is not to identify and transmit the "right" values, but to help a student clarify his own values so he can obtain the values that best suit him and his environment' (Harmin & Simon, 1973, p. 11). Thus, a value is right if it is right for one personally, if it best suits his/her particular situation. Or, as Lipe said (2009) 'what might be wrong today might turn out to be right tomorrow, depending on one's experiences'" (p. 16).

2.1.3.2. Common and Recommended Practices

With the use of the valuing process, students are more likely to experience positive value in their own lives and act more constructively in the social context. Yet, along with the valuing process, values clarification suggests a set of activities[53] designed to help individuals and groups, to develop and clarify their values. In this section, I give some examples from a variety of sources, with the aim to provide an understanding of their common characteristics. Since this movement emerged and flourished in the US,

[53] Value Clarification became more widely used and influential due to the book 'Values and Teaching' (1966) by Raths, Harmin and Simon. Since then, there is a growing number of books of the 'how to' variety, to equip teachers to be value clarifiers. Howard Kirschenbaum observed that there are at least a dozen books (with a total of over one million copies in print) and scores of articles available containing recommendations for activities (Kirschenbaum, 1977). Moreover, over half a million copies of 'Values Clarification: A Handbook of Practical Strategies for Teachers and Students' are in circulation.

the practices I present here come mainly from that tradition. However, the practices described here are mostly activities for the classroom. The themes identified within this data set (regarding the practices of values clarification) though, needed to be better organized in order to build the theoretical model. The activities described here lead me to some conclusions about the general requirements of values clarification from the learners, in terms of practice. These requirements are consistent with the prompts of the valuing process (Kirschenbaum et al., 1977). Thus, for identifying the themes within this data set, I classified these common requirements of values clarification using the five dimensions of the valuing process; thinking, feeling, choosing, communicating and acting. This organization of the themes is illustrated in the next chapter (chapter 8), in which I present the theoretical model. Here I describe the activities.

i. Name Tag Strategy

The 'NameTag strategy' (Simon & Bohn, 1974, p. 55) is a good way to introduce a group of students to the values clarification process. Participants are asked to make cards placing their name in the middle. In the corners of the card, they are expected to write their responses to various questions, e.g. 'What movie did you see recently that you liked best? Who is the most oppressed of the two sexes-male or female? (...) Where were you last when you spent an hour lying on your back looking at the stars?" (...) When was the last time you had a really good belly laugh? (...) When you last cried? (...) When you were closest to death?' (p. 55). Other similar activities are: to rank in order what type of person they are: 'feeling, acting, or thinking'; name their favorite peaceful place; or describe what they value best using six '-ing' words. Upon the completion of the name cards, the group breaks up into smaller groups, and each participant is given a short time to discuss their cards with the other members of the group. The other members can respond with 'validating statements like "You're a lot like me because...", or "I liked it when you said...."' (p. 56). After that, new groups are formed. According to the authors, 'there is a sense of developing excitement that comes with the personal thoughts that are shared. Out of this sharing comes a growing sense of community'.

ii. Twenty Things I Love To Do

'Twenty Things I Love To Do' is a practice to help participants realize whether they know what they value, and whether they achieve it, by writing down 'a list of any 20

things they truly love to do' (Simon & Bohn, 1974, p. 56). Participants can publicly share a few of these. Then, they can also be asked to mark in their list, next to each activity, the date they last did this activity, which of these activities involves risk, or intimacy, which activities they expect to enjoy after retirement, or which activities do they consider special and will give up last. When this coding is completed, the following strategy of ''I learned '' statements begins.

iii. 'I Learned' Statements

This practice is a simple and effective way to get feedback from the learners regarding previous activities of values clarification, but most importantly to help learners clarify, crystallize and reinforce their new learnings (Simon & Bohn, 1974). Participants are asked to use any of the given sentences in order to voluntarily share their feelings with the group: 'I learned that I...', 'I re-learned that I...', 'I noticed that I...', 'I discovered that I...', 'I realized that I...'', 'I was surprised that I...', 'I was pleased that I...', 'I was dis-pleased that I…' (p.56).

iv. Brown Bag

The purpose of 'Brown Bag' is to help learners examine their lives by constructing a collage (Simon & Bohn, 1974, p. 57). Participants are asked to decorate a large grocery bag with any pictures and words that depict what they value, and want to share. On the inside of the bag, as more personal, they are asked to put words they are confused about. Then, they can split up into groups and discuss their bag, repeating the process with different groups.

v. Weekly Reaction Questions

This practice helps learners look at their lives with a different perspective and notice emerging patterns (Simon & Bohn, 1974, p. 57). Participants are asked to write down highlights from the preceding week, e.g. choices they made, whether they were in empathic disagreement with anyone, whether they instituted any changes in their life, how the week could have been better, what did they procrastinate about, or any future plans.

vi. Proud Whip

'Proud Whip' aims to help learners become aware of how proud they feel about their beliefs and actions, and progressively encourage them to engage more in activities they

can take pride in. Hence, participants might be asked to consider what they have done to be proud of on the matter of ecology; 'The leader whips around the room calling on students in order. Students respond with the words "I'm proud that..." For example, "I don't use non-returnable bottles". Or, "I use only white paper towels"' (Simon & Bohn, 1974, p. 58).

vii. Planning For Living

'Planning for living' is a set of practices based on the following premise: 'Most of us act though we think the future is something that happens to us, rather than as something we create every day. The emphasis of psychology on how childhood experience determines later adult behavior, coupled with the fact that most of us accumulate obligations as we go through life, leads many people to explain their current activities in terms of where they have been rather than where they are going. Because it is over, the past is unmanageable. Because it has not happened, the future is manageable.' (Simon & Bohn, 1974, p. 58)

The following exercises are designed to help learners reflect on their present state, their desired state, and the resources they have for achieving what they desire (p. 59):

"Lifeline: This practice makes learners confront the reality of life and death by drawing a line that represents their life. By check marking the present on the life line, and by reflecting on the estimated number of years one has left to live, learners realize the opportunity to choose how to spend the years left.

Who Am I?: The learners examine the check mark on the life line, by answering the question 'Who am I?' in ten different ways. The different answers include their different roles and responsibilities in life, the groups they belong to, the beliefs they hold, or their personal qualities, feelings and behaviors. The prompt is to 'List those things which are really important to oneself, things that, if lost, would make a radical difference in one's identity and the meaning of life'.

Obituary: Learners are asked to write their own obituary as if they died yesterday. This practice helps to look at life and its quality from the perspective of death. Participants may volunteer to share their obituaries, by reading them out loud, or through smaller, more personal groups.

Two Perfect Days: Participants are asked to imagine how they would best use 48 hours of their time; where they might be, what they would be doing and who else might

be with them. They are instructed to dream whatever they want, with only time as a limit. Later, they share their fantasies with the rest of the group. The aim is for students to clarify what they want out of life and what they really love."

viii. Clarifying response

'Clarifying response' is one of the fundamental practices involved in values clarification; it is a way of responding as a teacher to the students, in order to stimulate them to clarify their thoughts and behaviors, and therefore, also their values. Some examples of clarifying responses, provided by some authors (Raths, et al., 1966, p. 1), are: 'Is this something that you prize?' 'Did you consider any alternatives?' 'Did you have to choose that; was it a free choice?' This strategy is designed to raise questions in the student's mind, and there is no attempt to moralize, criticize, suggest values, etc.

ix. Values Continuum

This practice expects students to take positions on issues presented on a continuum from one extreme to its opposite. What could also help is hanging an 'Agree' sign on one side of the room and a 'Disagree' sign on the opposite side. After the educator reads a statement, the participants are asked to stand and to place themselves along the agree/disagree continuum. Further explanations on their positions start a discussion. Educators may be surprised at the places people decide to stand, therefore they should ensure the exercise takes place in a safe environment where each participant can freely and respectfully express their opinion. Web sources provide a variety of value statements wrestling with diverse ethical issues.

x. Values Sheet or Questionnaire

The purpose of this practice is to help learners explore their own values and attitudes toward certain issues. Here, I present an example regarding family planning, safe motherhood issues and adolescent reproductive health issues (Johns Hopkins Bloomberg School, 2002). Participants are initially provided with a values sheet, containing a list of values and short descriptions for each value. They are asked to rate these values in terms of how important they are to them, and then to rank the top five most important. A group discussion follows, in which participants justify their top five values, and relate them to the issue of family planning and safe motherhood. The group members then indicate the extent of their agreement or disagreement with some of the

statements. For example, regarding male and female roles, some statements could be: 'When a woman gets pregnant, it's her fault.', 'The more children one has, the more respected mothers are in the community.', 'The bigger the family the better.', and so on. After responding to these statements, the participants only read aloud the items they strongly-agree and strongly-disagree with, and discuss them with the others.

xi. The Bull's Eye

The 'Bull's Eye' is a popular values clarification practice[54]. A dartboard is divided into four important domains of life: work/education, leisure, relationships and personal growth/health. To begin with, participants write down their values in these four areas of life, thinking in terms of general life directions in such a way they there is nothing stopping them, e.g. personal qualities they might want to bring to their work, what sort of relationships they want to build, personal expressions of spirituality, hobbies or creative activities. The participants then read through their values and draw an X on the dart board for each of the four areas of valued living, indicating where they stand today. An X in the bull's eye, the center of the board, means that learners are living fully by their values in that area of life.

xii. Role playing

Roleplaying can be combined with several values clarification practices. In the following case of storytelling, for example, after discussing the story characters, students could also role-play different situations based on topics raised through the discussion. Another example is from a health workshop on abortion (Reproductive Health Access Project, 2011), in which role-playing is suggested to establish empathy. Participants are asked to pair up for the role play. One partner plays the 'clinician' and the other the 'patient'. The clinician tells the patient that she is pregnant, while the 'patient' does not want to be pregnant. Then, the roles are reversed, and the other partner plays the clinician breaking the news. The facilitators then ask the participants to describe the most helpful aspects of the way the 'clinician' broke the news.

xiii. Storytelling

[54] This practice is designed by a Swedish psychotherapist called Tobias Lundgren (Russ, 2008).

Storytelling is one of the most common strategies for values clarification, usually followed by questions (Sommer, 1984). The students listen carefully to a story with difficult moral issues and then they rank the characters, e.g. from the most offensive character to the least objectionable. Later in groups they discuss the pros and cons of each character.

xiv. Survival Games

Values clarification suggests practices such as 'survival games' (Sommer, 1984) to examine and probe many controversial ethical issues. "Children are divided into groups. Suddenly World War III begins, with bombs dropping everywhere. People are running for shelters, and the class group is in charge of these shelters. A desperate call is received from a fallout shelter where ten people want to enter, but to survive the necessary three months there is enough space, air, food, and water for only six. The group has exactly one-half hour to decide which ones will enter before they themselves must seek protection" (p. 240).

A list of the ten individuals is also provided, among them a couple, a pregnant woman, a policeman with a gun, a Hollywood star, etc. The teacher distributes copies of this list and then counts down the time. Students are asked to decide who will die. It is noteworthy that some educators have banned survival games in their schools.

xv. Diaries

Students share with the class experiences and feelings from their private lives by means of personal diaries (Sommer, 1984, p. 241), while the educator asks a series of values-clarifying questions. Diaries – including religious ones, can bring an enormous amount of information and a number of moral issues from students' own lives to be discussed in class.

2.1.3.3. Criticism of Values Clarification

Values clarification as an approach to moral education has been greatly influential and its popularity has resulted in a considerable number of books, articles, workshops, and handbooks. The widely accepted claim is that young people today face a barrage of differing values from a variety of sources and this makes value decisions difficult. To resolve this confusion, one could expect that teaching values such as honesty, peace, democracy, and duty towards others would be adequate. However, the advocates of

values clarification view moral education differently; 'in the name of democracy, freedom, tolerance, and individuality (…) see the problem in terms of the students making "their own responsible choices" which they cannot do if they are taught by "moralizing adults"' (Ryan, 1989; Simon, Howe, & Kirschenbaum, 1972). An undoubtable contribution of this approach is, therefore, that it generated a movement away from the restrictive and inhibiting forms of traditional moral education. What prevails is a positive view on human nature; 'that persons can be trusted to choose wisely in most situations of value conflict, as long as they are encouraged to be reflective about their values' (Ryan, 1989, p. 182).

Subsequently, advocates of values clarification deliberately and unequivocally take a relativistic stand about values, while strongly emphasizing the centrality of the individual in the valuing process. As Harmin and Simon hold, the approach '(...) is not based on the assumption that absolute good exists and can be known'; values are viewed as 'relative, personal, and situational' (Harmin & Simon, 1973, p. 11). The consequence of this relativism is that right might turn out to be wrong and vice versa, depending on one's experiences and preferences in a particular situation. This is one reason that values clarification is open to debate, as an adequate approach to moral education. The general problem, according to Stewart (1975), from which many other problems stem, is that its advocates fail 'to develop - thoroughly, systematically, and continuously - an integrated conceptual framework, a theory' (p. 686). Below are the most significant arguments from the opponents of the approach.

i. No objective universal values

The Values Clarification movement has mainly been accused for its tenets of value-neutrality and absolute relativism. Some advocates attempted to save the approach from such charges by justifying certain values as universal: freedom, justice, equality, and rationality (Brummer, 1984, p. 266). These values are necessary for the valuing process itself. However, this has been criticized by Ryan (1989), as the nature of each of these values is not specified, and neither are the extent, the limitations, the priorities, or rights over another clear; 'it seems that neither the concept of freedom nor of rationality, considered as ends-in-themselves can provide any objective basis for values necessary to ground and justify morality and social justice. We are forced to ask the question, "Does a rational consideration of values by itself provide an objective basis for morality or can rationality just as easily be reduced to a subjective logical use of thought?"' (p.

184). What Brummer actually maintains, is that the values clarification theorists are concerned with 'only those values which ground the investigative process itself, rather than push those values that are likely to emerge from it' (Brummer, 1984, p. 265). This conclusion leads to more discussion and criticism.

ii. Emphasis on the process and not on the content

As very accurately pointed out above, the advocates of values clarification are concerned not with the content of people's values and the nature of the values themselves, but with the process of valuing. This has been largely criticized. However, Stewart's criticism (1975) on this matter is different, reversing the argument somewhat. He claims that both values clarification practices and the process of valuing deal primarily with the content of values, rather than with the structure of values and valuing; 'This [content] focus leads Louis E. Raths, Sidney B. Simon, and Merrill Harmin to conclude that "a person in the Antarctic would not be expected to have the same values as a person in Chicago." True, if we are dealing with the content of values that is, of course, relative to culture. But not true, as the structuralists have been able to discover, if we are dealing with the structural aspects, which are universal to all people and cultures' (Stewart, 1975, p. 684). He explains further, that not much emphasis is given to the underlying cognitive logic on which the content is based, nor to the 'why' does that generate an answer to a hypothetical moral dilemma.

Considering all this, the conclusion is that value clarification theorists give significant importance to preserving the values of freedom, justice and equality in the educational process, but they are not so concerned about the process of moral thinking, or the values that result from the process. These values are relative, based on individual, subjective choice and personal experiences.

iii. Values as personal preferences on superficial issues

In a handbook of values clarification practices (Simon et al., 1972), it is claimed that present-day students confront a variety of value questions, such as 'Should Bill and I live together before marriage?', 'Does religion have some meaning in my life, or is it nothing more than a series of outmoded traditions and customs?', 'How do I know whether marijuana is really harmful to me or not?', and 'Should I let my hair grow longer?' (p.13-14). It is evident that questions and matters of personal taste and cultural tradition are mixed with serious matters like war and peace. Lipe also quotes Harmin,

who has stated that, 'Values clarification is also concerned with issues that have few moral implications and that are essentially private: for example, what dress shall I wear to the party?' (Harmin, 1979, p. 25). However, it is essential for the advocates of the approach to make a distinction between moral values and matters of personal taste, or otherwise between superficial and profound values.

Considering all the above arguments proving the relativism of the approach, values clarification has been moreover criticized for ignoring important values that preserve the society, 'since they are assumed to be no more vital, nor more objectively valid than any other values' (Ryan, 1989, p. 176). As Ryan continues his criticism: "Someone might wonder at this point how the human race has survived so far throughout the ages if all our moral and social values are so arbitrary and uncertain" (p. 183).

The argument of the values clarification supporters though, is that there is no actual consensus about what values should be taught (Simon et al., 1972), and therefore indoctrination is losing ground today. As an answer to this, Ryan (1979) then sets the following questions: 'Since the behavior of citizens in a society depends on their values how can one hope to preserve any society if no consensus on values is possible? Moreover, if the teaching of values is a great social and educational need, as the values clarificators admit, then how can the answer to this need possibly be to reduce all values to the lowest common denominator of personal preference?' (Ryan, 1989, p. 176).

iv. Impossible to be 'values-free' - Hidden agendas

Another interesting question deriving from the discourse about indoctrination and relativism, is whether there can be education without any supposition of values. This question has also been discussed in a previous section. Regarding values clarification, some advocates have admitted that 'Called before the committee, we can only say that values clarification is not and never has been "value free"' (Kirschenbaum et al., 1977).

Hence, what needs to be considered is that there might be value biases in the philosophy, in the objectives, or in the practices of the approach. Starting from the values inherent in the basic lines of values clarification, the openly promoted values are those of prizing, choosing and acting, or, if one prefers, of thinking, feeling, choosing, communicating, and acting. As also declared by its theorists (Kirschenbaum et al., 1977), values clarification promotes certain types of thinking, i.e. 'Thinking critically is regarded as better than thinking non-critically', or certain types of choosing, i.e. 'Choosing freely is considered better than yielding passively to authority or peer

pressure', and so on (p. 744). Going one step further, there are also implicit value judgments in every process, if one reflects on their particular objectives; 'Toward what end are these valuing processes better than their counterparts? (...) If we urge critical thinking, then we value rationality. If we promote divergent thinking, then we value creativity' (p. 744).

In addition, the valuing process also has certain implicit terminal values, which are: 'life, liberty, and the pursuit of happiness' (p. 744). There are also inherent values in the objectives of the approach. Values clarification aims at enthusiasm, persistence, self-direction and harmony, instead of value-confusion and idiosyncratic behavior patterns. What is to be avoided is being 'apathetic, flighty, uncertain, inconsistent, drifting' (Raths et al., 1978, p. 6-8, as cited in Ryan, 1989) and what is promoted are the values of clarity and awareness. Stewart (1975), reveals more examples[55] of the 'hidden agenda, or bag of virtues, of Values Clarification', as he calls it (p. 687). What Stewart also noticed, is that the words used for phrasing the objectives of values clarification are abstract and the authors do not define what constitutes each of the above characteristics. This abstraction, which is probably grounded in the tendency to avoid indoctrination, is, however, contrary to the clarity and awareness claimed by the approach. Additionally, moral judgments can be implicit in the statements from values clarification theorists, as well as implied in educational practices, such as e.g. in their clarifying questions.

Furthermore, the theory's relativist principles signify the support of the value of *tolerance*. The discourse on tolerance is inevitable when one talks about relativism. This is for two reasons, as I described in a previous paragraph. First of all, the question that rises is what happens when basic human rights are violated, in situations for example, such as genocides, slavery, rapes etc. Relativism in this case may be used to justify these violations, and tolerance may lead to 'moral neutrality and inaction' (Hatch, 1997, p. 372). Values clarification advocates refuse this charge by declaring: 'We do not necessarily communicate approval of whatever someone may say or do. Rather value-clarifying requires that we communicate acceptance of a person's total being as it is.

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[55] Some examples of the objectives, noted by Stewart (1975), are: 'purposeful', 'know what you want', 'don't fritter away your time', 'a favorable attitude toward learning', 'far less noisy and generally recalcitrant', 'Productivity', 'see through other people's foolishness', 'not taken in by smooth talkers', 'seem to get a large picture of what's good and beautiful and right', 'less vulnerable to fads', 'nicer people to have around' (pp. 687–8).

This acceptance is meant to assist others in accepting themselves and in being honest with themselves and each other" (Raths, Harmin, & Simon, 1978, p. 4).

The second point of criticism is that the imposition of tolerance contradicts relativism itself, as it implies that there is an absolute value 'as the one virtue' that the individual 'must accept' (Harrison, 1976, p. 131). Even the fact that values clarification is to be preferred over others, falls into this philosophical contradiction. Regarding this, Ryan (1989) asserted that many statements of the values clarification theorists imply that 'negative consequences will result when one uses an improper pedagogical approach' (p. 179). All the above considered, what Ryan noticed about the defenders of values clarification seems reasonable, that 'for the most part, [they] ignore even the possible existence of basic moral values. Yet, even they themselves find it impossible to completely avoid some reference to basic moral values, e.g. honesty' (p.178).

Finally, much criticism on relativism, as well as on the theory of values clarification, stems from the claim that our moral judgments are 'relative to the cultural background out of which they arise' (Renteln, 1988, p. 59). In values clarification though, values are supposed to be chosen 'freely'. The question then is, what happens with the traditional values inherited from family, peers, and the general social and cultural environment. When a value is handed down to children as a matter of family tradition, is this considered a 'free' choice?

v. No critical thinking and no criteria to resolve values conflicts

A significant drawback of values clarification is that it does not provide any adequate criteria by which to resolve value conflicts. As Ryan (1989) points out, it is not possible to thoughtfully consider and wisely choose the consequences if there is no criterion to evaluate the consequences, or judge them among alternatives. More specifically: 'Does one choose alternatives which have better consequences for oneself or for others, or for society, or for the future? No answer is forthcoming. (...) Why is it necessary to all to examine alternatives and their consequences unless some consequences of some alternatives are better than others, as the authors have already admitted in their attempt to escape the charge of relativism?' (p. 180-181). Subsequently, regarding the aims of values clarification, Ryan finds it meaningless to resolve the conflict between apathy and enthusiasm: 'if persons are happy with a value and the resulting behavior, then why should they search for alternative values and consequences at all?' (p. 182). Furthermore, it is noted that when the consequences of a choice, or the alternatives are

not evident, and the students are rushed to choose, the choices might end up being made randomly (Ryan, 1989).

In addition, the fact that values clarification views moral judgments as a subjective matter, means any and every ethical system can be justified, implying even the equal acceptance of contradictory value systems (Lipe, 2009, p. 16-18). To make this more clear, an example is used, in which two contradictory positions, meeting all the criteria of the valuing process, are justified. The first position is Hitler dictating to the Nazis that it was morally right to exterminate the Jewish people. The other position is that of the Jewish people, who believed that it was morally wrong for the Nazis to exterminate them. Both groups chose their values and actions freely, chose these from alternative values, acknowledged the consequences, prized their decisions, publicly affirmed them, or were willing to do so, and they certainly acted upon their values, repeatedly. It is thus evident that a system that equally justifies two contradictory positions cannot be considered suitable for the moral development of people.

vi. Risk of conveying ill values

As already explained, the educators of values clarification are not concerned with what values are adopted, but rather with the process of valuing. This means that any criminal action could also satisfy the criteria and be justified. As Ryan puts it, 'any criminal would be content with what they themselves "prize" or "cherish." They would, in fact, receive the highest merits if evaluated by the criteria of Values Clarification' (Ryan, 1989). This, evidently, creates the risk of conveying ill values.

vii. Reverse indoctrination from excessive power to the agents

The insistence of values clarification to give students the freedom to determine their own values, while keeping them away from the influence of anyone more experienced, has received much criticism. For Wilcox (1988) this freedom for students is excessive, and even 'a form of reverse indoctrination' (p. 250). More precisely, 'the teacher in effect communicates to less-experienced youngsters that their own spur-of-the-moment conclusions, and their own sometimes irrational, almost whimsical opinions and impulses can hold up against society's established conventions and moral values that have stood the test of time.' The author also presents an example from his own personal experience, while observing a discussion regarding the use of alcohol, conducted by a student-teacher in a junior high speech class. Even though some students had reasonable

arguments against alcohol, the non-serious statements and invalid arguments of other students seemed to win the class debate. During this whole process, the teacher avoided indoctrination and therefore did not intervene. The conclusion is that 'By remaining completely neutral and quiet, he did succeed in his aim of not indoctrinating the students. However, I worry that he also avoided teaching them. For all of his influence and input, this class discussion about alcohol may just as well have happened in main hall or in the locker room' (p. 249).

viii. Public affirmation and repeated action not always possible or recommended

Public affirmation is a requirement for defining a value according to the theory of values clarification; 'If we are ashamed of a choice, if we would not make our position known when appropriately asked, we would not be dealing with values but with something else' (Raths, Harmon, & Simon, 1966, p. 29). Similarly, it is demanded that a value must be acted upon; 'A verbalisation that is not lived has little import and is certainly not a value' (Raths et al., 1966, p. 58). These two requirements are also evident in the practice of this approach, because a common activity of students is sharing their experiences with others, and a common clarifying question is whether students have done anything about their ideas.

These two criteria of valuing though, have received much criticism. First of all, what is entailed by 'action' is not explicitly defined. This difficulty was pointed out by Lockwood (1975), when he stated that advocates of this approach 'fail to address the problem of determining what actions are consistent with what values' (Lockwood, 1975, p. 37). Moreover, as the valuing process can even justify two contradictory positions, one can also assume that the same value can also be represented by two contradictory actions. The matter of 'action' becomes even more problematic, as it is emphasized that it has to be a 'repeated action' (Raths, et al., 1966, p. 30). The questions arising are what does 'repeatedly' mean, how often must an action be repeated, and what would happen if a person only had the opportunity to act upon his value one time? (Lipe, 2009) Most importantly, what if there were many limitations in our lives hindering our opportunities to act on all our values. All these aspects are ignored by this values clarification tenet, as explained more explicitly here: '(…) this assertion ignores the realities of life and limits most people to a very small number of values. Only martyrs are able to affirm and act consistently and publicly on some of the highest values. Would the Values Clarification authors be willing to claim that only

Martin Luther King (...) could claim racial equality as a value? (…) In order to evaluate (not judge) a person's acting or not acting on any given issue, one must know a lot more about the situation, the person's developmental progress, the costs or dangers involved in acting or not acting, and many other factors. But the judgmental nature of Values Clarification is pervasive' (Stewart, 1975, p. 685).

As for the requirement for public affirmation, what is also not taken into consideration, is that 'it often is unwise to state publicly one's convictions; for example, it would not be easy for one living in a communist state to express that communism as a form of government should be abolished'. An additional critical question is whether 'public affirmation itself is in some ways action?' (Lipe, 2009, p. 13)

Furthermore, other critiques regarding public affirmation and action dispute that, first of all, they are both highly moralistic and judgmental, and that as oversimplified generalizations they are also potentially dangerous (Stewart, 1975). This claim is based on a research study conducted by social psychologists, showing that 'when people take public positions or are forced to act they tend to cling to the beliefs or values involved, even if those beliefs or values are tentative or not genuinely held at the time of the commitment or action. Once the stand has been taken and the action completed, there is a tendency to live with it and not risk embarrassment or threat by changing later. To go back on a public affirmation or action is often to lose face' (p. 685).

This means thus, that premature affirmation and action should not be encouraged and artificially induced. The risks are even greater especially during the important developmental years of adolescence and youth, when there is a need for 'genuine commitment'.

ix. Peer pressure and coercion to the mean

A considerable deficiency of the approach is the coercion of the learners to agree with their peers' views, or to move toward moderate opinions. This becomes evident in activities, especially those in which 'the extreme positions are so value-specific and/or emotionally loaded as to preclude them as legitimate alternatives for many people' (Stewart, 1975, p. 685). The following example from the 'values continuum' practice, dealing with the topic of premarital sex, is very insightful on how this tendency toward the mean, actually works: 'Now consider the very shy, sensitive, and fearful girl in the class as an extreme example - the girl who's tremendously concerned about her standing with the other girls, or the boys, or the teacher. Suppose that her position on this issue is

clear, even as the result of having applied the principles of Values Clarification, and that she truly believes in either one of the two extreme positions. Would she be likely to affirm publicly such a position in this situation? I would think not. The risks would simply be too great. Assuming that she also does not want to run the risk of being judged somehow for passing, one of the legitimate choices in all VC exercises, she might be inclined to express a middle position' (p. 685). Stewart underscores the danger of such practices to end up harmful for the participants, leading them to anything else but true clarification. Attention should be stressed especially concerning teenagers, given the dynamics of teen-age relationships. However, adults with high sensitivity regarding the judgment of others can also be severely affected.

x. Ambiguity, dishonesty, philosophical inconsistency

Values clarification is often seen as an incoherent and dishonest approach for VE, 'rooted in a confused philosophy of absolute relativism and in an inadequate psychology of instrumental individualism', while carrying 'a mixed and conflicting bag of virtues.' (Stewart, 1975, p. 687). These charges stem from all the arguments analyzed above, however here I summarize the most significant ambiguities of this theory, from a philosophical perspective. First, its inadequacy to define a value, as the criteria suggest, are vague. The confusion regarding what is really considered a value, is evident in many contradictory statements of the theory's advocates (Stewart, 1975). Second, there is an inconsistency regarding whether a particular set of values is promoted, or not. For example, while on one hand, values are personal, situational and relative, on the other hand, a list of undesirable moral behaviors is provided by the advocates, plus there are the values implicit in the theory and practice.

The approach has generally been criticized for the contradiction of the moralistic nature of many of its aspects, with its strong claim for a neutral, values-free, and non-judgmental education of values. In addition, values clarification has been characterized as dishonest from a clearly philosophical perspective. As pointed out, 'They claim value neutrality with regard to the content of the methodology, but fail to see that their own values are built into the methodology' (Stewart, 1975, p. 685).

Moreover, holding that two contradictory positions can be equally supported, contradicts the fundamental objective of values clarification, which is to provide harmony and consistency. It seems that values clarification as a philosophy is largely confusing. This is most probably rooted in its attempt to avoid indoctrination, or, in

other words, to combine 'both the "soft line" of unwillingness to take a stand on values and the "hard line" of direct values teaching' (Hall, 1979, as cited in Ryan, 1989, p. 176). In other words, 'perhaps a theory of values education cannot have it both ways. The more it escapes the charge of relativism, the more likely it runs headlong into the accusation of moralizing' (Brummer, 1984, p. 264).

Another inconsistency derives from the advocates of the approach who claim, on one hand, that values clarification is the appropriate method to clarify our value confusion, and on the other hand, support relativism (Lipe, 2009). All these philosophical inconsistencies lead Stewart (1975) to draw the following conclusion, that 'the basic VC premise is clear: All values statements are relative - except 1) this one, 2) those that are essential for the values clarification theory and methodology, and 3) those deemed absolute by groups or organization who want to use VC but keep their own values systems intact, e.g. Christian educators, schools, and others' (p. 686).

2.1.4. Differential characteristics of the VE philosophies

For building the theoretical model, I needed to work with the VE approaches at a comparative level, not only by analyzing each VE approach separately. Each approach has some fundamental characteristics that belong exclusively to its philosophy. The idea is to identify and gather these characteristics, in order to be able to easily distinguish between the approaches. The differential characteristics of the VE approaches should also be representative as a set, covering the entire - or most fundamental - principles of each VE approach. This task is achieved through thematic analysis of the particular data set (of the theoretical principles of each VE approach).

By reviewing the themes identified in this particular data set, I managed to create a taxonomy of the common denominators of the three VE theories. This taxonomy helped me then organize the themes of each VE approach according to these denominators. In this paragraph, I describe the outcome of this process.

A significant difference of character education, moral development and values clarification, is related to *how these VE approaches perceive values, as well as the education of these values to the learners.* Hence, while character education teaches core universal values that should be adopted by the players, the approach of moral development wants to make learners question all values, except justice and care. Furthermore, values clarification claims to be 'free of values', letting the players clarify their own values.

Another aspect which is different in the three VE approaches is *who decides upon what is right and wrong* in the educational process.In the tradition of character education, what is right and wrong is decided by the educator while learners are passive receivers. Moral development, on the other hand, lets the players pursue right and wrong, through moral reflection and conflicts provoked by the educator. While in values clarification, right and wrong are defined by each learner, and cannot be judged by anyone during the educational process.

Finally, the three VE movements are very distinct in their *final objectives regarding the individual and the whole of society.* In other words, what is the moral person and the moral society that each approach strives for. Each approach sets its moral goals of the desired values and moral skills that the learners should develop, as well as the societal values that should ideally prevail.

Thus, the common denominators of the three VE approaches are: *the aimed values, who defines what is right or wrong, and the end-state goals regarding the individuals and the society.* For building the theoretical model, I used the above denominators as a set of questions to which each approach would give its own value/answer:

1. *What is the aim in terms of values?*
2. *Who defines what is right and wrong?*
3. *What are the end-state goals regarding individuals and society?*

Finally, for building the theoretical model in terms of educational practices, I needed to examine whether there are common practices suggested by more than one VE approach. The review of the themes of this particular dataset (of the educational practices) led me to the conclusion that there are some similarities between some educational practices, but they are not identical[56]. In the following chapter, the theoretical model is demonstrated explicitly.

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[56] For example, there are similarities between moral dilemmas (moral development) and choosing among alternative options (values clarification), or between behavior control (character education) and regular reports on players' actions (values clarification). However, these practices stem from a completely different philosophy and therefore should not be confused. For example, although learners are encouraged to report their actions in values clarification, this cannot be perceived as 'control' of their moral behavior, as the role of the designer is non-judgmental.

2.2. The VEGA Model

In this chapter, I present the VEGAmodel, as resulted from the thematic analysis of three VE approaches - character education, moral development and values clarification. I need to remind the reader that this model, although it has been prepared as an instrument for game analysis, has no relation to games yet. The empirical study will be the first attempt to use this model for game analysis. Hence, it is important to note that because the model is intended for game analysis, in the process of model building, the themes have been slightly transformed in order to correspond to players, rather than just any learners.

This theoretical model is composed by three parts, corresponding to the three distinct data sets used in the thematic analysis of the VE approaches: a) VEGA-I; regarding the main philosophies of the VE approaches, b) VEGA-II; regarding the practices suggested by the VE approaches, and c) VEGA-III; regarding the issues deriving from the criticism of each VE approach.

These components are expected to play a distinct role in game analysis, as they deal with diverse aspects of the game and address different challenges. Thus, for each component of the theoretical model, I also define its aim and its function in the game analysis.

2.2.1. VEGA-I: Identifying the Philosophical Approach for VE

This component can be useful for *identifying which VE approach is dominant in the design of a game*; whether one of these VE approaches is followed by the game-design and to which extent.

The VEGA-I component of the model includes the differential characteristics of the three VE approaches as identified in the theoretical study of the VE approaches. This sub-model includes three questions and the answer of each VE approach to each of these questions.

VEGA-I component of the model		
Character Education	**Moral Development**	**Values Clarification**
1. What is the aim of the game in terms of values?		
Absolute universal values Focus on players' behavior	Global justice, democracy, care Player's values are questioned	Player's values are clarified
2. Who defines what is right and wrong in the game?		
Right/Wrong are clearly defined, presumed, and indoctrinated by the designer	Right/Wrong depend on players' developmental stage, and the designer is partly indoctrinative toward justice	Right is what players value, and the designer is absolutely neutral, non-judgmental
3. What are the end-state goals regarding individuals and the whole of society?		
Individual: good character, right behavior Society: preserving the right values, changing the individuals holding wrong values	Individual: moral reasoning, autonomous critical thinking Society: global justice, democracy, care	Individual: Clarified, purposeful, committed Society: not under values confusion, with members acting upon their values

Table 1. VEGA-I Model for identifying the VE approach of a game design.

2.2.2. VEGA-II: Cataloging the Practices for Values Education

Each VE approach, apart from its distinct principles, is also characterized by its distinct educational practices. The VEGA-II component of the theoretical model aims at *investigating whether the recommended practices from each VE movement are encountered in the design of already existing G4Cs*. This process is crucial to investigate the affinity between the traditional VE practices and the contemporary design of digital G4Cs. This is also one of the few academic attempts to identify *game design techniques for teaching values*. These game techniques for values education could be an inspiring tool for designers of games for awareness.

The second component of the VEGAmodel contains the educational practices suggested by each VE approach. To build this component, I cataloged the themes found within the dataset of the *educational practices* of each approach. The result is a set of three different lists of educational strategies, corresponding to the three VE approaches.

VEGA-II component of the model: **Character Education**
i. Behavior missions
ii. Behavior control
iii. Direct moralisation (lessons & values advertisement)
iv. Involvement of family, peers, local or broader community
v. Exemplars
vi. Rewards
vii. Values of the Day/Week

Table 2. Cataloging the most common practices for character education

VEGA-II component of the model: Moral Development
i. Moral dilemmas
ii. Conflict resolution
iii. Role-taking
iv. Discussions
v. Decision-making
vi. Analysis of narratives
vii. Living in a moral community
viii. Cooperative learning

Table 3. Cataloging the most common practices for moral development

VEGA-II component of the model: Values Clarification	
Thinking	i. Reflection upon personal life experiences ii. Discovering what is most valuable in one's life iii. Consequences of present actions iv. Search for new data / Identification of problems v. Wrestling with issues not acknowledged before vi. Imagining the future
Feeling	vii. Empowerment of self-confidence viii. Pride ix. Empathy
Choosing	x. Choosing between alternative options xi. Pros and cons xii. Prioritization of values

Communicating	xiii.	Free public expression of personal viewpoints
	xiv.	Discussion to conceive new ideas and knowledge
Acting	xv.	Action upon own values and regular reports
	xvi.	Setting meaningful future goals
	xvii.	Report on what has been learned

Table 4. Cataloging the most common practices for values clarification

2.2.3. VEGA-III: Critical Remarks

The criticism of each VE approach reviews both the philosophy and the practices of the approach, providing arguments to be discussed, important issues to be considered and/or alternatives. The VEGA-III component of the model therefore, could provide a *set of ethical issues to be considered by game designers or game critics when a game follows a particular VE approach*. These considerations could help designers reflect on the implications of their design, discover inconsistencies or possible moral risks, and experiment with new design ideas. Most importantly, it could be valuable for the *criticism of existing G4Cs.*

This component is intended to describe the most critical moral concerns arising from the VE approach followed by the game design. Thus, it summarizes all the themes that emerged from the particular dataset regarding the critique of each VE approach. The result is three lists of critical concerns, corresponding to the three VE approaches. As these issues cannot be explicitly described within the model, they are included nominally, followed by their scientific sources.

The VEGA-III component of the model, as resulted, is the following:

VEGA-III MODEL: Character Education	
i. Hindering moral reasoning and critical thinking	(Pritchard, 1988; Raywid, 1980)
ii. Limiting moral autonomy and imagination	(Charlene, 1990; Paske, 1986)

iii. Risk of conveying ill values	(Kohn, 1997; Primack, 1986)
iv. Contradiction with democracy	(Beach, 1992; Joseph & Efron, 2005; Kilpatrick, 1972)
v. Negative view of human nature	(Huitt, 2004; Kohn, 1997)
vi. Narrow view of the problem	(Glanzer, 1998; Kohn, 1997)
vii. No lasting commitment	(Kohn, 1997)
viii. Absolutism vs relativism	(Hatch, 1997)
ix. Reproduction of systemic values	(Kohn, 1997; Purpel, 1991)
x. Inconsistency between means and ends	(Kohn, 1997)

Table 5. The most critical ethical issues to be considered in character education.

VEGA-III MODEL: Moral Development	
i. Challenges of democracy	(Lickona & Davidson, 2005; Oser et al., 2008)
ii. Indoctrination towards western values	(Reimer et al., 1983; Bandura, 1991; Bloom, 1986; Shweder, 1982)
iii. Moral judgment not leading to moral action	(Bandura, 1991; Blasi, 1980, 1983; Kohlberg & Candee, 1984; Kohlberg et al., 1983; Oser, 1996)
iv. Neglecting social influences and real-life conditions	(Bandura, 1991; Gilligan, 1982; Higgins, Power, & Kohlberg, 1984; Tappan, 1991)
v. Objection to moral hierarchy	(Bandura, 1991)
vi. Ambiguity and abstraction	(Bandura, 1991)
vii. Individuality - underestimation of care	(Bandura, 1991; Eisenberg & Morris, 2001; Friedman, 1993; Gilligan, 1982, 1987; Hoffman, 1982; Noddings, 1995; Reiter, 1996; Ruiz & Vallejos, 1999a; Walker, 1989)

Table 6. Cataloging the most critical ethical issues to be considered in moral development.

VEGA-III MODEL: Values Clarification	
i. Universalism vs relativism	(Brummer, 1984; Harmin & Simon, 1973; Ryan, 1989)
i. Emphasis on the process - not content	(Stewart, 1975)
i. Values as preferences on superficial issues	(Harmin, 1979; Lipe, 2009; Ryan, 1989)
v. Implicit values and hidden agendas	(Kirschenbaum et al., 1977; Ryan, 1989; Stewart, 1975)
v. No criteria for conflict resolution, justification of any ethical system	(Lipe, 2009; Ryan, 1989)
i. Risk of conveying ill values	(Ryan, 1989)
i. Excessive power to players	(Wilcox, 1988)
i. Public affirmation and action not always possible, or recommended	(Lipe, 2009; Lockwood, 1975; Stewart, 1975)
x. Peer pressure - coercion to the mean	(Stewart, 1975)
x. Confusion, dishonesty, inconsistency	(Lipe, 2009; Stewart, 1975)

Table 7. Cataloging the most critical ethical issues to be considered in values clarification

3. Empirical Study - Using the VEGA model for game analysis

The aim is to answer the research questions (p.33). The first step was the formation of the VEGA model, i.e. the thematic analysis of VE approaches and the dense description of their different characteristics on a comparative level. The second step is now to apply this tool to the empirical analysis of existing games. Will the VEGA analysis provide helpful insights into how G4Cs convey values and allow us to answer the research questions?

Could the VEGA analysis provide helpful insights for understanding how G4Cs teach values? The empirical study is constituted of three case studies~~,~~ three contemporary and popular games are selected (according to the criteria described in §5.2.1.) to be examined in this survey: *Power Explorer* (Interactive Institute, 2008), *The Movement* (Basa e.V., 2009), and *Urgent: Evoke* (World Bank Institute, 2010). In this chapter, I name the analysis of these games *VEGA (Values Education Game Analysis)* and the different parts of the theoretical model *VEGA-I, VEGA-II and VEGA-III*.

By bringing the theoretical VEGA model to the empirical ground of G4Cs, this empirical study is essential for developing the answers to the research questions of this project. In this chapter however, I just report the empirical results of the analysis. The conclusions are drawn in relation to the model and the research questions, in the next chapter of the thesis.

The games selected for the empirical study are the following: a) *Power Explorer* (Interactive Institute, 2008) - a persuasive environmental mobile game for reducing household energy consumption, b) *The Movement* (Basa e.V., 2009) - an ARG for political education on violence and right-extremism, and c) *Urgent: Evoke* (World Bank Institute, 2010) - an alternate reality game promoting a vision of positive global change through social innovation (entrepreneurship for providing help).

In each case, I start with a description of the game and the gameplay, focusing on the three elements of the **formal game analysis**: actions, goals and evident narrative inferences. All these elements are useful for the **VEGA analysis** that follows.

3.1. Case Study 1: Power Explorer

Power Explorer, as defined by its designers (Bäng, Svahn, & Gustafsson, 2009), is a pervasive action-oriented multiplayer game designed to develop the skills for energy-efficient consumption at home and a positive attitude towards saving electricity. The game focuses on measuring the household energy consumption of the players in real time with sensors that provide feedback when the players switch devices on and off. The target group of the game is teenagers and their families.

A main concern in designing Power Explorer was to achieve a persistent and long-term effect in the players' energy saving attitudes. The interest in the long-term effect on players' attitude was aroused because in a previous game called Power Agent, the players had significant, but short-term, attitude changes that only lasted for the duration of the game. Indeed, Power Agent's trial showed that although energy consumption was reduced remarkably during the game, it 'basically returned to normal within a few days after the game trial had ended' (Gustafsson, Bång, & Svahn, 2009, p. 182). To improve this, the designers decided that Power Explorer needed: firstly, *a sensor system with instant feedback* of the players' energy usage rather than the 24-hour feedback in Power Agent, and secondly, *a more casual game style,* with small investments by players, rather than the committed style of Power Agent.

3.1.1. Formal game analysis

In Power Explorer each player has an avatar, a *'monster blob'*, and *tries to keep it happy and healthy in its garden environment.*The goal is to keep the CO^2 cloud of his/her garden smaller than his/her opponents' clouds. This is controlled by the energy consumed in the player's household in real-time. A player can also choose to have a duel against another player, by manipulating electric household devices. The game provides *four* different environments with *different modes* of interaction:

The habitat: Saving energy makes the monster blob happier. Every time the player turns on an electric device, some weed grows around the monster blob, with a size corresponding to the amount of electricity consumed. The monster blob then eats the weed and puffs out small clouds of CO^2 with an unhappy face in response. Conversely, when the player turns off the devices and the energy consumption decreases, flowers appear in the garden. The flowers have a positive effect on the avatar. From the beginning of the game, there is also a grey medium-sized cloud in the sky which gets smaller with

time. However, the CO^2 emitted by the monster blob makes the cloud grow. Thus, in the case of an excessive increase in household energy use, the cloud of CO^2 fills the entire screen, making the monster blob visibly sick.

The pile: The happiest monster blob is on the top of the pile.The pile ranks the players in accordance with the current size of their respective CO^2 clouds. Hence, the avatar on the top of the pile is that of the player consuming the least and with the smallest cloud in its garden. This, of course, over the course of the game can change.

Duel in the rainforest: The monster blobs compete and the player who best controls the current energy consumed, wins the duel. This mode focuses on learning how much energy is consumed by different devices, when in continuous use. The two avatars are on a racetrack in a rainforest, and some obstacles appear on the way, causing them ill health. Some of the obstacles move periodically and can be avoided by adjusting the speed of the avatar, not by pressing the 'jump button'. The speed is controlled by instantly manipulating the energy consumption; turning electric devices on makes the avatar run faster and vice versa. However, increasing the speed causes the forest to flood , which could drown the avatars. Therefore, the task is to maintain enough speed to overcome the obstacle, without fatally flooding the forest.

Duel in the North Pole: The monster blobs throw objects at one another, by turning on electric devices. The player that knocks their opponent off the icecap into the water wins the duel. The objects can be 'light', such as snowballs, fish and seals, or 'heavy', like polar bears and blue whales. The heavier the object is, the harsher the impact to one's opponent. In order to get a polar bear or a blue whale, the player has to turn on a major electricity-consuming device for some seconds, while for a snowball, a lamp is sufficient. Seals slide on the ice when thrown and the opponent then has to jump to avoid them. As in the rainforest duel, using extra energy to win the battle is a double-edged sword: the players' combined consumption rate affects the strength of the sun, which means that the more consumption increases, the less consistent the icecap is.

When a player wins a duel, the avatar wears the 'golden scarf of victory' in the ranking pile, and also earns one hour of immunity against weed growing. Therefore, his/her garden is easier cleaned from the thistles and the extra CO^2 emitted during the duels.

The design of Power Explorer does not provide any informative content, tips, or other reflective messages within the game. The game designers declare that they intentionally left the interpretation of the game events to the players, and to their personal discussions with their family and peers outside the game.

The research project that gave birth to Power Explorer tested the game and arrived at certain conclusions. The conclusions of this game trial[57] are indicative of the gameplay and, therefore, need to be considered for the game analysis. The focus of the study was on the post-game effects of the players. The participants were also subjected to a questionnaire before and after the game. Part of the players' interviews and reports on their experiences of the game are published, along with the data retrieved from the household electricity measures during and after the game. Here I include the most significant results (Gustafsson, Bång, & Svahn, 2009), essential for a deeper understanding of the whole project:

'Only three of the participants increased or showed no changes in their consumption during the game trial. Significance of difference between the two groups however decreased shortly after the game trial ends, (...) indicating a greater overlap between the two groups. (...) Consumption during the 10 weeks following the game trial was on average 14% lower in the player group compared to the reference group' (p. 185).

'On average the player group felt more positive about saving energy after the game while the reference group became slightly more negative (a statistically significant difference). (...) participants also saw themselves as more prone to promote energy conservation to their surroundings, indicating a change in self perception. (...) knowledge regarding different appliances was also widely shared and discussed among players in story like fashion. (...) The indication is that the increase in explicit knowledge in regard to power rating on appliances is marginal. The results from the energy test, on the other hand, are somewhat stronger. This test indicated that the players were actually worse at determining the amount of energy used for different tasks after the game. (...) we can also see that the game did not appear to have any positive effect on the players' attitude towards the environment in general. In fact, results rather indicated a more negative attitude in this regard.' (p. 187).

Moreover, players reported on what they did differently during the game, which was turning off lamps, TVs and computers, generally 'things that were unnecessary or that you didn't use' (Gustafsson, Bång, & Svahn, 2009, p. 186). According to the researchers, these are indications of tolerable 'non-extreme measures', which could potentially remain

[57] A test group of 15 players aged 12-14 years old played Power Explorer for 7 days. The results have been evaluated by comparing the attitudes of the players to a control group of 20 households that did not play the game.

after the game. Only in a few cases did the players talk about energy saving measures that would 'directly infringe on comfort levels', or as they also say, 'done for the game' (p. 186).

The above results are also compared to the results from the trial of the prior game (Power Agent), in the pursuit of more sustained changes in players' behaviors. Power Explorer has managed to achieve an improvement in this respect.

3.1.2. VEGA Analysis

3.1.2.1. Game analysis with the Model VEGA-I

Aimed values: The game aims to change teenagers' attitudes towards the reduction of energy use at home. Domestic energy conservation is a central goal of both environmental policy and environmental education. Along with other practices it serves the general concept of sustainability, as it is stated by the designers themselves. Sustainability can be defined as follows: 'Sustainable living must be the new pattern for all levels: individuals, communities, nations and the world. To adopt the new pattern will require a significant change in attitudes and practices of many people.' (IUCN/UNEP/WWF, 1991, p. 5) Thus, here, sustainability can be perceived as a 'universal' value.

The long-term commitment to energy conservation is also an indisputable objective. The education for sustainability places much emphasis on the importance of long term improvement, rather than immediate environmental actions alone (Tilbury, 1995). Furthermore, in order to better clarify the expected behavior, the game engages players to learn about the impact of different electric appliances. The focus on the change in behavior as well as the clear guidance to achieve this, are definitely characteristics of character education.

Who defines what is right and wrong in the game: The procedural rhetoric of the game is actually based on the following premise: consuming less energy is the good behavior to be adopted, while keeping electric appliances on when not in use, is considered negligent and should be avoided. The duels, on the other hand, challenge the players to learn about the concept of continuous electricity consumption - by leaving the right combination of appliances on, but not too much - as well as the concept of power used by an appliance - quickly turning the right appliances on/off (Bäng et al., 2009). In each case, the winning conditions directly indicate both the right behavior to be adopted and the wrong one to be

avoided. As for the role of the game designer in this VE game process, it seems to be *indoctrinative, as saving domestic energy is directly imposed on the players.* The game encourages players to learn the explicit ways to conserve electricity at home, but not to reflect on this environmental issue, in a way that would affect the game. In case of any opposition from a player, the only option given by the design is not to comply with the expected attitude, and as a consequence, to get a position at the bottom of the pile. Even if the players are free to discuss different perspectives, this can only occur outside of the game.

End-state goals of the game for the individual and society: The end-state goal of the game for the individual is to adopt the right behavior of saving energy at home. At the same time much attention is also given to the acknowledgment of how much energy and power is consumed by each appliance. One of the additional challenges is also to make players commit to this behavior persistently after the game. The above objectives correspond exactly to the ones advocated by the character education approach; to 'understand the core values, adopt or commit to them, and then act upon them in their own lives' (Lickona, 1993).

As for the societal objectives of the game, the long-term goal of Power Explorer is to contribute to the global energy problem by changing the attitudes of players regarding energy conservation. What is clearly premised (Bäng et al., 2009; Gustafsson, Bång, & Svahn, 2009) is that small individual efforts at home might be crucial for reducing global emissions of CO^2. The game can also be seen as a challenge towards sustainable living. Hence, the end-state visions of the game regarding society are to direct the behaviors of individuals towards 'good' universal values. This is a characteristic of Character Education.

3.1.2.2. Game analysis with the Model VEGA-II

i. **Behavior missions:** Power Explorer targets the behavioral change of the players, and the whole game is about conserving energy. This is each player's mission and its core design strategy. All these game missions use subjective measures, rather than fixed standards; players do not aim to reach particular levels of energy consumption. Hence, what matters is the relational difference between players, or, in other words, the mission is to save more energy than the other players.

ii. **Behavior control:** The players' performance is moreover controlled through the immediate consumption feedback provided by the game. As stated by the game

designers: ‘Feedback on one’s personal energy consumption can play an important role in helping people adopt new energy consumption patterns in their homes. (...) Lately, these studies focus on using modern communications and digital means to convey the feedback’ (Gustafsson, Bång, & Svahn, 2009, p. 2). It seems therefore, that this ‘providing-feedback-technology’ in Power Explorer is useful for two reasons: a) to encourage players to understand and achieve the desirable behavior, and b) to control whether the game objectives are achieved, in the short and long term.

iii. **Direct Moralizing:** Direct moralizing is not encountered in the game of Power Explorer. Although the game is characterized by an indoctrinative design approach, there is no direct lesson or values-advertising content in the game. In fact, the game does not really contain educational content, as also noted by the game designers; ‘our design approach can be said to be information-shallow since it provides no such in-game informative content, no in-game tips on how to succeed and no overt topical information and pointers’ (Bäng et al., 2009, p. 5). Subsequently, in another version of the game, or in other similar games, is possible to encounter this practice.

iv. **Involvement of the community:** The game’s intention is not only to encourage the players, but also their families to save energy at home; ‘Power Explorer is designed for teenagers all living at home with families and sharing their households with parents and siblings’ (Bäng et al., 2009, p. 5). This is also why, after the game, interviews were taken from some family members too. The mother of a young player stated that her whole family was actually involved in discussing which devices they could turn off: ‘We turned off the computer during nights, before we were a bit sloppy in that regard. But now it was like that (...) the computer was turned off and in fact it still is now as well, even though it’s over (the game)’ (Gustafsson, Bång, & Svahn, 2009, p. 186).Moreover, a player who has been considered the least involved player, said: ‘(…) kind of told mom that she should turn off the radio and other unnecessary things (…) and not to do too much laundry’ (Gustafsson, Bång, & Svahn, 2009, p. 186).

In the evaluation of the results, however, there is no significant change in the energy consumption habits of the family members, or in their general environmental actions or in their reasoning about the value of saving energy (Gustafsson, Bång, & Svahn, 2009, p.186-187). The game designers of Power Explorer assert that the involvement of family and friends in the game experience is significantly supported by all pervasive games. This is because the physical stage of these games (streets, house) is inevitably shared with non-players, or, in other words, their ‘social expansion’ (Stenros, Montola, & Mäyrä,

2009). In Power Explorer, this social expansion is believed to offer a natural platform to interpret, reflect, discuss and debrief actions and information of the game, while also having a 'persuasive effect' on players and non-players (Bäng et al., 2009). However, admittedly, the involvement of the players' families is 'rather open and may not seem to be an obviously intended part of the game design' of *Power Explorer* (Bäng et al., 2009, p. 5). A considerable amount of family involvement however was reported in the game designers' previous similar game, *Power Agent*[58].

v. **Exemplars:** Neither are exemplars used in the design of Power Explorer. The game does not introduce any story-character having a modeled behavior, nor promotes any example in real life that players have to follow. However, in the previous game *PowerAgent,* (Bang, Gustafsson, & Katzeff, 2007; Gustafsson, Katzeff, & Bang, 2009) this strategy was developed; the players first play a mobile game in which they are represented by an avatar, and in the second stage, they are asked to apply what they have learned from the game in the real world[59]. In this case, the avatar in the first-stage is used as a model to illustrate the 'right' environmental behaviors. In the second-stage, players have to imitate these modeled behaviors. It is interesting to note that this feature has been included in the game exactly for this purpose[60]. Yet, the designers did not make use of a similar two-stage model in *Power Explorer.*

vi. **Rewards:** The practice of rewards is definitely used in the design of Power Explorer. The players strive to see their avatars reach the top of the pile, or wear the golden scarf. This reward is not material, but rather a title signifying their success, either

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[58] 'This included ordinary tasks such as players turning off appliances and lamps, reminding each other to conserve electricity, to more extensive measures like buying energy efficient lamps and even rebuilding the entire home heating system to make it more efficient' (Bäng et al., 2009, p.5). 'Interestingly, families appear to have employed a joint strategy to reduce the negative effects of extreme energy-saving and a low comfort level by transforming it into a social event (for example, lighting candles, making things cozy, buying pizza or attending a party)' (Gustafsson, Katzeff, & Bang, 2009, p. 54:17).

[59] 'The underlying idea [in the design of PowerAgent] is to let the users first play a simulation (platform) game on the phone to symbolically learn wanted behaviors, and then let them enact and rehearse these behaviors at home in the family context (the real-world tasks). Thus, in the real missions, the gamers can test the behaviors and get both direct and social feedback on their actions' (Bang, Gustafsson, & Katzeff, 2007, p. 62).

[60] This is based on the social learning theory (see Bandura, 1977, 2001), which emphasizes the importance of observing and modeling behaviors as a way to learn, rehearse and enact them in real world (Bang et al., 2007, p.58).

in consuming less energy on a daily basis, or in duels. Apart from the title, the reward of winning a duel also signifies practical advancement in the game. The winner can recover the energy consumed during the duel, while the non-winner has to try hard to save his/her avatar from the CO^2 cloud created by the duel. Rewards can also be perceived in the aesthetics of the game. The energy saving player has a garden with a blue sky and clean environment, in contrast to a polluted, dark and cloudy sky when consuming excessive energy.

vii. **Values of the day:** This practice is not encountered in the game. The same values are promoted throughout the whole game.

3.1.2.3. Game analysis with the Model VEGA-III

i. **Hindering moral reasoning and critical thinking:** Power Explorer does not provide arguments for adopting the promoted habit of conserving energy. Neither does it provoke players to reason by themselves. The cloud of CO^2 is perhaps an attempt to visualize the problem of CO^2 emissions. Nonetheless, it does not provide any references to the real consequences of greenhouse gas emissions or global warming. The urgency for humans to consume less non-renewable energy is not emphasized at all. It is possible then, according to the model, that players do not understand why it is important to save energy, and continue saving. Indeed, this is evident in the players' interviews after the game trial. Sara, on the question of what she thought about saving energy, did not have an opinion, while Willem, the 'most engaged' player, had no arguments for consuming less energy or finding this matter important: 'Well (…) you don't have to use it unnecessary. I don't feel that it is that important but… You can't just use… nothing. You have to use some' (Gustafsson, Bång, & Svahn, 2009, p. 187). Adam, on the other hand, felt that using less electricity was important, but his reasoning is not what one would expect: '(...) it is good to save electricity because it costs very much and so… it is not good'.

ii. **Limiting moral autonomy and imagination:** In the specific case of the game, no alternatives are presented to the players (i.e. renewable energy sources), neither is there any teaser to challenge them to discover new techniques to save energy at home (i.e. better insulation). Players are just focused on consuming less energy and experimenting with devices that they already use. In *Power Agent*, players improvised by using e.g.

candles for illumination[61]. In my view, challenging the imagination of players to seek alternative and even radical solutions, adds creativity, knowledge and fun to the game experience, even if these strategies only last for the duration of the game. Moreover, the fact that players are not committed to saving energy after the game could be further explained by the lack of reasoning, than by this feature.

iii. **Risk of conveying ill values:** In this game, the risk of educating ill values is reduced. The promoted behavior is conserving less energy. This behavior serves the value of sustainability, which is a universal and rather indisputable terminal goal.

iv. **Contradiction with democracy:** *Power Explorer* does not provide players any means for discussion or decision-making that could affect the gameplay. As a democratic feature, I can only take into account the common objective and the collective responsibility of the family members in saving energy. This, of course, does not make the game non-democratic. Perhaps though, this conclusion can motivate designers to add more democratic elements in persuasive G4Cs, especially when addressing values such as sustainability.

v. **Negative view of human nature:** This criticism claims that character education views human nature as something to be fixed, and with desires that need to be restrained. In the case of *Power Explorer*, the restrained desire would be that of wasting energy, of consuming without thinking. This matter touches upon the matter of control, hence it is quite interesting from the perspective of persuasive design; what would happen if the game design supported the self more, rather than restraining and controlling it?

vi. **Narrow view on the problem:** Energy waste is a global problem with well-known causes. However, the majority of energy consumption does not occur on the domestic level (11% of the total global energy use), but rather mainly in sectors such as manufacturing, construction, mining and transportation (Eurostat, 2011). Hence, without underestimating the worth of individual effort in energy conservation, it must be acknowledged that the game fails to give a representative picture of the causes of the problem. The players learn that the less domestic energy they use, the closer they are to global environmental sustainability. Subsequently, they might feel content with their

[61] This improvised activity has been evaluated by the researchers as an 'extreme' strategy that would not continue after the game; therefore, the designers changed the game style to casual (Gustafsson, Bång, & Svahn, 2009, p.182-183).

environmental consciousness of just turning off some appliances when not in use, and keeping their avatar happier than the neighbors' one.

Moreover, the game fails to mention any global consequences of the problem, which would most probably encourage the individual efforts of players to tackle it. Presenting players, for example, with the idea that climate change is a human generated problem due to greenhouse gasses, might evoke a greater responsibility to change domestic behaviors. Additionally, the game could show that some of the predicted consequences of climate change are already present in our world, and not just potential risks (to be avoided by making an avatar jump over them). This would give a more real dimension to the environmental effects. What is also ignored by the game is the determining role of politics in the global energy problem. It is well known that sustainable consumption requires action by industry and governments. Energy efficiency, for example, particularly by households, depends to a large extent on the available infrastructure. The role of the state is crucial in the implementation of environmental legislation in the industry structure and processes, as well as public transport. State energy policies also determine the choice of the energy sources: is it about maximizing energy efficiency and minimizing energy use? Is it about developing new sources of clean energy? Or is the focus simply on finding the cheapest energy regardless of the ecological costs? All these are political decisions that directly affect household energy consumption in any given country, and citizens should, therefore, be well informed.

These important aspects are missing in *Power Explorer*. This might be the reason that the general environmental concerns of players decreased after the game (Gustafsson, Bång, & Svahn, 2009). It is possible that players felt that they had completed their duties to the environment by having played the game, and therefore do not need to care anymore.

vii. **No lasting commitment:** One of the main challenges of *Power Explorer* is achieving persistent behavior change, not only during the game, but also after the game ends. Following character education suggestions, this can be achieved by motivating learners to 'love the good' (Ryan, 1993, p.16), as a connection between 'knowing the good' and 'doing it', between judgment and action. Does *Power Explorer* succeed in this aspect, and does it foster moral emotion? During the game trial, players get to know the good by learning explicitly how to save energy and do good by saving energy. The problem is that when the game is over, they are not motivated to continue this behavior. The question thus, is whether players feel emotionally committed to conserving energy. The answer I would give is: yes, but only through the fun provided by the game. The

players like to compete and,as stated in the interviews. they like ‘to see how much electricity you use!’ (Gustafsson, Bång, & Svahn, 2009, p. 6). Despite this emotional attachment, the game design does not evoke other feelings related to conserving energy, e.g. an appreciation of the environment, or a feeling of responsibility. Players might only feel empathy for the virtual monster blob being suffocated. In conclusion, *Power Explorer* succeeds in making players love the good game, but not necessarily love the good impact of saving energy. As the game ends, there is no ‘moral emotion’ to drag them into action. The game designers seem to acknowledge this; ‘As the motivation to change behaviors comes from winning the game and not from the benefits from adopting the behavior there is always a risk that the participants will fall back into their old behavior when the game ends’ (Gustafsson & Svahn, 2004, p. 183). However, the design attempts to improve the game in this aspect (i.e. with real time feedback and casual game style), but focus is on improving the game, rather than the players’ moral emotion.

viii. **Universalism vs relativism:** Character education does not support relativism; on the contrary, it believes in common universal values, as indeed, the values promoted by the game. How could this theory of relativism then contribute to my analysis? Here, I need to investigate the promoted values of *Power Explorer* using the prism of relativism. Starting with the value of sustainability, I believe that it can definitely be considered indisputable. Does the same apply to the behavior of not wasting energy? If we think about the consequences, burning less fuel, as a way to tackle the problem of global warming, affects not only all humans, but also all the fauna and flora on earth. So in that sense, the game is not relativistic.

However, why do we use the term ‘wasting’ energy? Do we use energy only to cover our basic needs, or to empower the global industrial market, continuously manufacturing new products far beyond our needs? Is it a universal value to spend a non-renewable energy source, in order to feed our consumerist needs? The answer is no, since, first of all, two to three billion people worldwide currently lack access to modern forms of energy. The players and their families, on the contrary, belong to the section of global society that consumes energy to a large extent, and the teenagers have been raised with this comfort. The behavior of consuming energy has been internalized during their socialization. The question then is: does the game make any moral judgment on this matter, or does it keep a ‘tolerant’ position? This is a rather political question. In my view, *the game not only takes the players’ way of living as granted,* without any intention to change it, but, by adopting a casual game style, adjusts even more to the players’ daily habits. An additional remark

is that the players compete with each other to reduce energy, without any other objective standards to reach. The above could lead to the conclusion that *the game is relativistic on this matter.*

Furthermore, what needs to be examined is whether the players' social environment is associated with any of the 'wrong' values, or the 'wrong' behaviors prevented by the game. The importance of 'accounting for culture in design' is already recognized in the field of designing serious persuasive games (Khaled, Barr, Biddle, Fischer, & Noble, 2009, p. 7). Based on my model, the exploration of the dominant values in the players' social environment, is significant to perhaps explain why players have this 'wrong' behavior that needs to change[62] (Kohn, 1997, p. 5).

ix. **Reproduction of systemic values:** Whether the game reproduces systemic values is a political question. Systemic values are the defining values of the current political and economic order. The question can also be interpreted as whether the game design undermines or hinders the opposition of these values or practices.

In the case of Power Explorer, the main terminal value is sustainability, a universal objective that requires the political involvement of the society, the state and the economic establishment. It is well-known that it is impossible to achieve any remarkable improvements in sustainability, unless there is collaboration and an obvious common course of all the above actors. If the systemic actors do not do their part in the common effort towards sustainability, or even worse, if their practices oppose sustainability, then the society needs to acknowledge this, and confront it and try to change it.

The design of *Power Explorer,* though, does not do this, since it is only interested in changing habits of domestic consumption without providing any background of the present political and economic context. What emerges here, is the question of responsibility of the systemic actors. Power Explorer does not address this question at all. On the contrary, the game leaves systemic actors and government policies unaddressed,

[62] After a short survey, I found that players´ social environment might account for e.g. the connection that players make between energy consumption and economic cost. On the official website of the Swedish Energy Agency, in the section on sustainability, I encountered an informative brochure on domestic energy saving, with the general title: 'Save Energy - and make your housekeeping money last longer' (Swedish Energy Agency, 2009). This money-related perception of sustainability is not confronted by the game.

while at the same time it gives the impression that sustainability can be realized solely by saving energy at home.

x. **Inconsistency between means and ends:** Such inconsistency is often encountered in games. Especially regarding persuasive techniques, Bogost (2008) observed that it is common to 'produce desirable ends, from the perspective of the creator or sponsor of a persuasive technology. But they do not necessarily produce desirable means' (Bogost, 2008, p. 16). In Power Explorer, the terminal values are sustainability and energy conservation. Although the teenagers might collaborate with their family members, the game is competitive in the sense that the players compete with each other. Competing however, is not at all compatible with the concept of a sustainable planet. Which means that there might be an inconsistency of means and ends; while collaboration is the end, the means is competition. Apart from the moral impact that this inconsistency might have on the players, it definitely makes it more difficult to acknowledge whether players save energy because they are aware of the significance of this action, or because they just want to defeat other opponents[63].

Another interesting point is that although the main objective of the game is to consume less energy, during the duels players are asked to turn on devices, wasting energy. The more energy-consuming the device, the faster the avatar runs, and the heavier the object it can throw at the opponent. The only constraint in energy wasting is the risk of the rainforest flooding. Moreover, winning a duel gives the player one hour's worth of immunity against weed growth, enough for the cloud and the garden to recover. This 'conflicting design' is recognized by the designers (Gustafsson, Bång, & Svahn, 2009, p.7) and based on their claim, 'seems to have contributed positively to the dynamics of the game'. From a moral and educational perspective though, it appears to be an inconsistency of the game design.

3.1.2.4. Summary of the Game Analysis

According to the results of the VEGA-I analysis, the design of Power Explorer fulfills all the characteristics of character education. The game promotes a universally accepted value and focuses on changing players' behavior regarding this value. So, while the societal objective of *Power Explorer* is to reduce the global emissions of CO^2, the game

[63] For example, according to Kohn (1997, p. 433), this competitiveness could lead players to see competition as a norm, and themselves as discrete individuals rather than members of a society.

attempts to change the attitudes of individuals regarding domestic energy conservation. Thus, the role of the game designers as moral educators is indoctrinative. The VEGA-II analysis showed that some practices of character education are also encountered in the design of *Power Explorer; behavior missions*, *behavior control*, and *engagement of players' families and friends.* As for the application of the third part of the model - VEGA-III, the analysis of the game regarding the critical issues of character education leaded to meaningful results; the game design *fails to offer moral reasoning for energy conservation, develop players' critical thinking, foster emotional attachment to the values promoted and provide a wider view on the energy problem, while it is merely also inconsistent in its means and ends*. These remarks set the ground for discussion on several other moral aspects of the game design, as for example the role of players' social environment and the internalization of the 'wrong' habits, or the achievement of players' long-commitment to the desired behavior. Finally, the VEGA-III analysis generates some ideas that could perhaps be integrated into the design in order to prevent, or at least reduce, undesired moral impact.

The above results will be further discussed and more elaborately commented in the next chapter of the thesis (paragraph 4).

3.2. Case Study 2: The Movement

The Movement (Basa e.V., 2009) is an Alternate Reality Game for political education that lasts three days. The game is applicable to teenagers and young adults (16+). *The Movement* aims to educate players through experiential learning about violence and extremism: 'the pedagogic-didactic goal of the game is young people to understand by experiencing firsthand what otherwise they only read about, e.g. that somebody is a victim of violence' (Konieczny, 2012). In the game, players get engaged in a complex story of political violence, involving *extreme rightwing* and *radical antifascist groups.* While 'behind the curtain', the organizers - called game masters - follow the game's evolution and work on its smooth progress. A discussion at the end of the game involving all the participants brings out everybody's experiences, feelings, and insights about the game.

3.2.1. Formal game analysis

'What begins as a harmless seminar on civic courage, soon turns into a thrilling adventure full of lies, deceptions and entanglements.' (Basa e.V., 2013)

The game is integrated into a three-day seminar about violence. It is presented as a seminar, with the participants unaware that they are playing a game[64]. The seminar usually takes place in a Youth Center where the players are also accommodated and spend time together. Below is a description of the game day by day.

First Day: The seminar-leader organized a brainstorming session among the participants on violence, followed by a presentation of their ideas and a discussion. Participants tried to define violence and locate its sources, or the possible reasons behind it. After the discussion, the participants played a short game. The seminar-leader described a few ambivalent violence-related cases and, according to their judgment, the young adults took a stance on a scale ranging from 'extreme violence' to 'non-violence'. Participants with the most different opinions were asked to argue their reasoning, which usually provoked a discussion[65].

Later, the seminar group was invited to a lecture organized by a local citizen's initiative, called 'Die Bewegung' (the Movement). The lecture presents the official aims of the initiative and was given by the PR spokesman, called Thomas Schlüssel. In short, Mr. Schlüssel announced that the Movement helps improve social life and restore safety in the neighborhood, so that children can safely go to school, and the elderly can go shopping. The members do not turn a blind eye to the illegal actions and local rising

[64] On the second day of the seminar, one of the planned activities is 'Experiencing an ARG'. The youngsters are informed and usually excited about this activity. However they do not expect it to start on the first day.

[65] One of the questions by the seminar-leader was: 'An unemployed man working in the black economy; is this violence or not?' Players were asked to physically place themselves on an imaginary scale in the room. Most players moved to the side of 'non-violence' but near to the center. The player standing at the edge of the 'non-violence' side stated: 'As soon as the person had no job, and no other choice, it made sense that he decided to work black. It is work in many ways, he is not doing anything wrong.' A girl from the other side then responded: 'He doesn't pay taxes and he is probably also getting money from the state for being unemployed. What if everybody did this?' A boy from the middle then says: 'Working is a human right. It is an obligation of the state to find him a job. But working black is still illegal and also not a solution'. Players find it difficult to say if it's right or wrong.

crime rates. They are there when the state police are not. He finished his lecture with the statement ‘Together we are strong.’

On each of the desks there was a badge of the Movement. Mr. Schlüssel asked the participants to put their names on the badges and wear them. After the lecture, the audience was introduced to the Head of the Movement, who invited participants to a local Café. There, members of the Movement approached the players more personally. Suddenly, Maxi, a young girl who was also a member of the Movement, started to cry. Then, some players approached her and learned that she is worried about her boyfriend Michael (nickname ‘Ratte’) who has been missing for three days. She is afraid that the Red Front, a local radical antifascist group, might be involved in this. The players found out about a barbeque being organized by the Red-Front the next morning and arranged to go together with Maxi.

During the night, just before turning in, some players, together with the seminar leader, started to play geocaching. On their way they ‘randomly’ met one more member of The Movement, Schläger, who was in search of a friend of his who had disappeared. This friend happened to be Ratte, Maxi’s boyfriend.

Second Day: The players were invited by members of the Movement to the City Hall for a seminar regarding the actions of the initiative. Some of the players, however, were going to the barbeque organized by the Red-Front, hoping to find out something about Ratte. The Red Front members talked about their political actions, emphasizing the need for resistance and calling participants to also get involved. Suddenly, a friend of theirs arrived. He shouted that Pauli, their friend, was attacked last night and is now in hospital. So, everybody decided to visit him, along with the participants. Pauli did not know who his assaulter was, but he received a SMS with a link to a video showing the attack. Everybody then started typing the address into a mobile device. The video showed two men hitting Pauli from behind. Some of the players recognized that one of the perpetrators of the aggression was a member of the Movement, a fact that made them become dubious about revealing the perpetrator’s identity to the members of the Red Front. In the event that they managed to rebuild the perpetrator’s identity, it would shed light on this mysterious offense, and may lead to a counter attack and a new round of violence. The players decided not to tell the Red Front and further investigate on their own.

Later, the two groups of players met for lunch. Some players managed to phone Ratte and arrange a secret meeting with him. At the meeting Ratte narrated his story: having participated in many violent actions with the Movement, he wanted to stay out of trouble, and after the last attack on Pauli, he announced his decision to leave the Movement. After that, he was persecuted by the Movement and this is why he was in hiding, even from his girlfriend Maxi. Ratte then asked for help.

After the meeting with Ratte, the players met with members of the Movement to go bowling, where Red Front people appeared, provoking the members of the Movement. Tension rose as the leader of the Movement, Wilko, realized that his mobile phone was missing. Wilko also threatened the players for covering up for the thief. The players agreed that Maxi needed to be informed about their efforts to help Ratte. They then arranged a meeting together with Maxi and Ratte. After the meeting took place, they all had to make a quick escape as they were hunted by members of the Movement. In a moment of rest, Ratte explained his story to Maxi: that he was terrorized by the Movement, and probably also by the Red Front as a reaction to Pauli's attack. The players, together with Maxi and Ratte, discussed different options to find a solution. They agreed to call on the members of the Red Front to be understanding with Ratte's situation and protect him from the Movement.

As the Red Front still had no idea about Ratte's involvement in Pauli's attack, they promised to help him and arranged an appointment. However, on the way to the appointment, members of the Movement assaulted them and kidnapped Ratte. The players then had more reason to collaborate with the Red Front to find evidence against the Movement; they all needed to save his life. They came up with the idea to break into the offices of the Movement and, after many adventures filled with puzzling information, they were led to the Mayor's office, where they found an invitation to a secret ritual in the woods. Players also had access to the internal forum, which was continuously updated with right-wing extremist content. There, they learned that the ritual in the woods was actually the punishment for Ratte's treachery. After that, the players, along with the seminar leader, Maxi, and members of the Red Front, went into the woods to find the ritual spot. Once there, they saw Ratte in chains encircled by Movement-hardliners, who gave oaths while dressed in white robes. Ratte's liberation was the last challenge of the game.

Third Day: The third day was dedicated to reflection and discussion of the players' experiences and the ethical issues that they confronted during the gameplay. The game masters-designers introduced ARGs and their characteristics and provided information about the design of *The Movement*. Then, players were invited to rebuild the story by narrating their personal experiences. In this phase, there was much discussion about their thoughts, feelings and game reactions. Apart from the players, the NPCs also expressed their perspectives on this commonly lived story. At the same time, game masters marked the most significant events of the story on the board, and based on these, an opened up discussion about the overall story and its characters.

Later, players were divided into three teams, each one reflecting on some critical questions. In this last phase, game masters coordinated the discussion in each team and posed additional questions, without expressing their personal views. The conclusions of each team's reflection were presented in public and further discussed by all the participants. The critical questions on which each team was asked to reflect, were: a) relation of the game story with reality, b) how the game design exploited the characteristics of ARGs for political education about extremism, c) what was good and bad, and whether the game was about the 'goodies' and the 'baddies'. Regarding this last issue, it was evident that there was a preference of the game masters towards the view that the game was not about 'good and bad', but about learning and reflecting through experience on several complex matters; what political extremism is, in which forms and ways it usually appears, what the reasoning is behind each case, which are the alternative stances on this matter, how critical is the role of non-extremists, and finally what the consequences could be in each case. The last activity of the reflection day was asking each of the players to identify and describe their most significant learning experience from the game.

3.2.2. VEGA Analysis

3.2.2.1. Game analysis with the Model VEGA-I

Aimed values: The game is about violence and political extremism, and the objectives, as officially stated by the initiators of the project (Basa e.V., 2013) are: 'development of problem-solving skills' and 'thinking of diverse action options'. The game attempts to develop players' moral reasoning by making them consider and experience different viewpoints, reflect and decide upon critical issues. The question though, is about the terminal values that the game aims at and whether there is any hidden agenda, or bias.

An evident answer to the above is that the game is against violence and extremism. However, does this apply to both right-wing and left-wing extremism? The NGO 'Waldritter' has an active interest (of at least 10 years so far) in the fight against right-wing extremism[66], and has received funds from the German state for this cause. Nobody, however, could claim that *The Movement* merely addresses right-wing extremism, as left-wing extremism is equally depicted in the story and not in a way to be admired. The game starts with the players becoming familiar with members of the Movement and sympathizing with their aims. Shortly after that they meet the Red Front and chat both with the pacifist members and the extremists. They see evidence of the criminal acts of the Movement and when they find themselves threatened by the Movement, the players choose to call on the Red Front for help. However, they make it clear that they are solely interested in a peaceful solution. How can it be explained though, that later on, some of the players illegally break into the offices of the Movement, alongside the extremist members of the Red Front? Their reasoning supporting this violent action is the urge to save Ratte's life. What needs to be generally admitted at this point is that the questions on what violence is, or whether violence can be justified, underpin critical moral decisions which cannot be easily answered. As it appears, the game triggers the players to reflect on these moral questions, and to develop their moral reasoning skills to find answers. Through this process, it does not matter if they make right or wrong decisions; they understand the complexity of this matter and explore diverse viewpoints and the available action options. Hence, although initially, the players choose to abstain from violence, when extremism threatens innocent actors, the players are confronted with the dilemma of apathy, or care for others and fairness.

Considering all this, the game design can be attributed to the approach of moral development.

Who defines what is right and wrong in the game: The game, through its plot, places players in difficult situations that they might not have confronted before. To find ways to handle these situations, players reflect and judge on their own; there is no right and wrong decision, neither any ready-made proper behavior promoted by the game.

[66] The current activity of Waldritter for the prevention of right-wing extremism can be traced here: http://waldritter.org/politische_bildung/rechtsextremismuspraevention

Another significant remark is that players find themselves between two 'extremes', i.e. the Movement and the Red Front; each holding its own strong views about violence and its own right or wrong values. Subsequently, there are moments of clear promotion of values during the unfolding of the story and its characters, for instance the lecture by Mr. Schlüssel, which is designed to indoctrinate and infiltrate the participants. Yet, as these attempts are derived from two conflicting extremes and the confrontation that comes as a result, players are provided with motivation and a rich input for critical thinking. Conflicting values and behaviors are encountered within the extreme movements as well. For example, the Red Front is supposed to be against the violation of human rights, but some of its members support violence to achieve this. Players from both sides are exposed to these contradictory moral positions on violence, and they are not only pushed to reason about them, but also to take critical moral decisions.

The question that rises at this point is whether players could also not take decisions and be inactive. Based on my personal experience, I concluded that it is the game design itself that urges players to decide and act. Progressively, and especially when the story reaches its climax, it becomes clear that being idle in such extreme situations can only bring worse consequences. When Ratte is kidnapped, for example, being active or not, could determine his life. Or, another example is during the fight between the two extreme groups at the bowling alley. Players realize that they should quickly bring Ratte and Maxi together, because The Movement is very close to catching Rattie. Yet, players' initiative for action is not just the result of the game's immersive design and motivating story. It is mainly driven by their feelings of empathy and fairness, awakened by the game. These feelings can explain, for example, why the players approach Maxi when she is crying - even before acknowledging that this is a game, their discomfort when being surrounded by members of the Movement - after learning their hidden activities, or, their satisfaction when Maxi and Ratte finally get together, which is definitely not the same feeling as winning a race-game. The game story brings these emotions out and makes players act for care and justice.

Taking all the above into account, it is evident that the role of the designers in *The Movement* is not typically indoctrinative. On the other hand, is the gameplay left exclusively in the players' hands? The answer is no. Game designers determine the most significant part of the design. They provide the moral content which motivates players to reflect and make decisions. They have also created the NPCs as characters with certain beliefs and attitudes. Moreover, while the game develops, game masters concurrently

design the story and decide on the consequences of players' actions and how to bring them into play. With this in mind, a critical question is whether players could declare, e.g. a pact with the Movement for capturing and finally murdering Ratte. This evolution of the story would definitely be discouraged by the designers, through their control over the consequences of players' actions and the role of the NPCs. Thus, players' choices are not absolutely free, but they are guided in a moral direction set by the designers. Hence, the role of the designers is not entirely neutral, but *partly indoctrinative*, towards the values of care, justice and peace. This is what the moral development approach requires.

Finally, what needs to be noted is the question posed to players on the day of reflection; whether the characters, the story and the events of the game correspond to reality. The question is made to allow players to have an opinion on the possible biases of the game design regarding the representation of reality. The nature of the post-game reflection undoubtedly indicates that this game can be attributed to the approach of moral development.

End-state for the individual and the society: The aim of the game is to provide players with an understanding of political extremism as encountered in reality, through a fictional story. On the last day, when players' actions, reasons and experiences are discussed, some players feel naive and regret some of their judgments, e.g. the players persuaded by the lecture of Mr. Schlüssel. What matters is not the choices players have made during the gameplay, but the moral development of each player on the critical issue of violence and extremism, through moral reflection and reasoning. This is the end-state goal of the game design for the individual.

As for the end-state goals regarding society, they are not clearly identified in the game. What appears though through the analysis of the gameplay, is that the design's moral direction is towards the values of care, respect of human rights and restoration of justice. The driving forces of players' actions are the pursuit of the common good and the care of others.

Hence, regarding the end-state of both the players as moral individuals and the society, the game design fits moral development.

3.2.2.2. Game analysis with the Model VEGA-II

i. **Moral dilemmas:** The design of *The Movement* sets a continuum of moral dilemmas to be confronted; helping Ratte or not; trusting Red -Front or the Movement; revealing who attacked Pauli to the Red Front or not; violating the offices of the

Movement or not. In all these dilemmas, players make decisions based on their reasoning. This becomes more evident through their discussions during the game, as also on the day of reflection.

ii. **Conflict resolution:** The players find themselves in the middle of conflicts: between Ratte and the Movement, and between the Movement and the Red Front. Players are asked to understand the reasons and the dimensions of these conflicts; what is at stake and what are the values and intentions of the stakeholders. They are moreover expected to resolve situations created by these conflicts. In fact, this seems to be the main gameplay activity.

iii. **Role taking:** Players encounter situations they might not have experienced before. They join a citizens' initiative, which ends up being a right extremist group, and later, they collaborate with a left-wing group, discovering counter-violence. These situations are set up in a convincing way and the game brings these situations to the attention of the players, allowing them to reflect and act. Players experience how it would feel if it were happening to them in real life; they actually take the perspective of those confronting similar situations in reality. Moreover, by meeting the diverse characters of the game, players learn about their different perspectives in depth. More authentically, role-playing is practiced by the NPCs of the game. To perform the roles efficiently, NPCs need to study the ideas, the behavioral characteristics and even the outfits of their roles beforehand.

iv. **Discussions:** During the gameplay, players discuss any ethical issues they confront, in order to decide their stance and further actions. In my first gameplay, we - as players - arranged to stop all other activities and gather for a serious discussion back at the Youth Hostel. A discussion among all the participants was needed after some of us learned about the criminal actions of *The Movement*; we needed to inform everybody, freely discuss, decide upon a common perspective on the matter and organize our actions. Moreover, the last day of the game-event is dedicated to discussions among the players, the game designers and the NPCs.

v. **Decision-making:** Players are constantly confronted with dilemmas, conflicts and unexpected situations, for which they have to make decisions. Decisions are taken either spontaneously, or after discussions; they are products of either personal reflection or group reasoning.

vi. **Analysis of narratives:** The main characteristic of ARGs is that they are based on narratives, which can be evolved in many different ways. The way that the story unfolds,

including the ending of the story, is not solely determined by the game designer or the game masters, but also significantly by the players' decisions and actions. Players in *The Movement* analyze what has happened and what they expect to happen next, discuss the different views introduced by the story, and examine varying options for action and their consequences. Presumably, the analysis of the narrative is used in the game.

vii. **Living in a moral community:** Players take decisions and actions within a group, by having discussions under general, democratic rules. Each of the participants respects the opinions of the others and trusts their intentions, thoughts and actions. There is no actual authority, all members are treated equally and accept the individual and collective responsibility of their decisions. It is fascinating that all this occurred in the gameplay without any imposition from the game rules, considering that players have no previous information about the moral development theory, its stages of reasoning, or what the higher moral thinking is that should be preferred.

viii. **Cooperative learning:** All the players aim to save Ratte and work together for this purpose. All together, they meet the members of the Movement - as well as the members of the Red Front, they confront the facts and the different views, they discuss and take decisions, and they act and deal with the consequences. Sometimes, they divide into smaller teams, but even when they have to act on their own, they later share their thoughts with the others. In conclusion, cooperative learning is the essence of the game.

3.2.2.3. Game analysis with the Model VEGA-III

i. **Challenges of democracy:** The game lets players discuss complex issues, share their thoughts, listen to all viewpoints and decide their actions; this is definitely a characteristic of democracy, evident in the game. Judging from my personal play experience, players did not abuse the power given to them. Furthermore, players' concerns during gameplay show compassion, and urge for fairness and respect. Consequently, the design is rightfully trustful of the players. It is significant to mention here, however, the role of the undercover NPCs (spies), assigned to report any case of rule violation.

As for the power of the majority, it did not create difficulties. Most of the time when a player had a good idea to act or good reasoning, all the other players agreed. Sometimes, two or more positions were combined. An interesting case in relation to this was when, just after learning about the criminal actions of the Movement, players met with members of the Movement in the bowling alley; a group of players wanted to directly confront

them to ask about their reported attacks. The majority, though, was scared to do this. In this case, the 'courageous' minority withdrew from their idea.

ii. **Indoctrination towards western values:** The claim here is that the game might be indoctrinative towards the values of justice, moral reasoning and rationality, values deemed as western. The game definitely places much emphasis on rational reasoning as well as on the need for fairness. Moreover, the game story depicts situations of political extremism proper to western societies. Hence, the moral dilemmas of the game are designed too, according to these cultural biases. However, this is not a problem, since the game is played in a western context.

iii. **Moral judgment not leading to moral action:** Moral reasoning does not necessarily lead to moral action; if players hold some values and reasons for them, it does not mean that their behaviors will be consistent. In *The Movement* though, values and actions are very much intertwined; players act according to their moral reasoning. Still, this does not guarantee that the players will continue to act according to the game values after the game ends. Nevertheless, there are elements that could lead participants to a greater awareness and more consistent moral behavior in real life, such as setting real life dilemmas, fostering the sense of responsibility, and projecting the consequences of particular behaviors. Moreover, the game design helps players to associate particular values with corresponding moral behaviors, through the complex game story and the diverse characters they encounter. By learning each character's views, listening to their past experiences, and observing their reactions in difficult moral situations, players witness how diverse values are enacted.

iv. **Neglect of social influences and real-life conditions:** The game design does not contain abstract hypothetical dilemmas, but dilemmas with actual substance, real emotions and consequences taken from reality. Therefore, there is no significant risk of ignoring aspects that could significantly affect players' choices in their everyday lives. However, it is still a game, meaning that it could not be completely real; the social influences of players cannot be fully acknowledged, the consequences of their game actions do not influence their real lives, the particular socio-cultural or historical context cannot be simulated. Consequently, players might elicit morally 'superior' judgments than they would in real life, but this could happen in any game.

v. **Objection to moral hierarchy:** *The Movement* does not intend to classify people into moral types, neither during the game, nor during the reflection day. There is no discrimination of players as 'morally superior' or inferior; players think and reason, and

each of them is invited to express her viewpoints, while accepting the arguments of the others.

vi. **Ambiguity and abstraction:** A possible weakness of moral education based on Kohlberg's approach, could be attributed to the high level of ambiguity in using the terms of justice and other values. In *The Movement* though, there is no such risk, as the values promoted, or questioned by the game, are not mentioned at all; they are directly enacted and players recognize them through behaviors and decisions.

vii. **Individuality and underestimation of care:** Gender differences is not in the scope of this study, therefore, no attention has been given to this matter. What is to be examined here is whether the game focuses on matters of justice as much as on the feeling of care, whether the design relinquishes empathy and interdependence, emphasizing rationality, self-sufficiency and independence. The answer is that the game design puts forth both justice and care equally, aiming to foster empathy and concern for the others. These values come into play from the beginning, through the empathy for Maxi and Ratte, and remain throughout the whole game story. After all, care constitutes the primary motivation for players' actions. Players constantly argue while considering those who need help, and take decisions and actions based on concern and solidarity. Finally, they even decide on illegal and dangerous actions to save Ratte's life.

3.2.2.4. Summary of the Game Analysis

The VEGA-I analysis showed that the game fits with the approach of moral development. *The Movement* aims to make players reflect on diverse views on the complex issue of political extremism. By providing players the opportunity to experience different cases of violence first-hand, the game aims to develop their critical thinking, to make them reflect upon difficult moral questions and decide on what is right and wrong. In this process, game designers have a partly-indoctrinative role, which is directed to justice, care and the respect of human rights. The results of the VEGA-II analysis illustrated that the design of *The Movement* uses also all the practices suggested by moral development advocates; *moral dilemmas, conflict resolution, role-taking, discussions, decision-making, living in a moral community and cooperative learning.*

As for the VEGA-III analysis, it brought up interesting moral aspects of the game design and set the ground for discussions on issues such as the risk of providing excessive

freedom to players, the consistency of players' moral reasoning and actions, or the inclination towards rationality and western values.

The above results will be further discussed and more elaborately commented in the next chapter of the thesis (paragraph 4).

3.3. Case Study 3: Urgent: Evoke

Urgent: Evoke is a multiuser online game, created under the auspices of the World Bank Institute (WBI) and intended to address global challenges by engaging players in social-innovation activities. The game began on March 3rd, and its first season concluded on May 12th, 2010. It was open to participants of any age, above 13, around the world. During this ten-week 'run-time' period, players were asked to engage in one new mission per week. At the end of the game, players could submit plans for real world social-innovation activities (Evokations). Apart from the players, a group of *11 game runners* played *Urgent: Evoke*, facilitating or conducting some of its essential operations. Game runners' responsibilities included; assigning points, providing feedback to players' inputs, answering questions about the game, encouraging players, facilitating play interactions and game inputs, creating active discussions, and maintaining the smooth progress of the game.

At the end of the game, the World Bank Institute conducted a survey on 518 participants, players and game runners. The aim, as defined by the executive producer of *Urgent: Evoke*, was to evaluate the game's impact on the development of 21st century and social-innovation skills, particularly among youth in South Africa. This evaluation report helped my analysis, as it provided access to specific data about the design, the game objectives, as well as players' experiences.

3.3.1. Formal game analysis

In the *learning objectives* of the game, two learning targets are emphasized by the designers: 21st century skills and social innovation skills**:**

- *21st Century Skills:* The game reports refer to '21st Century Skills' as particularly defined by the national U.S. organization 'The Partnership for 21st Century Skills'. As stated on the official website of the organization, its objective is to build 'collaborative partnerships among education, business, community and government leaders'. The claim is that in 'typical' 21st century communities and workplaces, children need 21st century knowledge and skills to succeed 'as effective citizens, workers and leaders' (The

Partnership for 21st Century Skills, 2009). These skills, apart from the core scientific content of mathematics, language, geography etc., include critical thinking and problem solving, communication, collaboration, creativity and innovation[67].

- *Social Innovation Mindset:* As it appears in the graphic novel, the players are asked to participate in an organization for social innovation active in different parts of the world. They are asked to *learn, act* and *imagine* as social innovators, but, first of all, they have to learn that social innovation is: 'the development of new forms of action, organization, transaction or other social interaction that meet existing and emerging social needs' (Hawkins, 2010, p. 9).

The game is set in the year 2020. EVOKE is a fictional network that attempts to solve problems, which appear as dystopias with extremely disastrous dimensions, such as food shortage, water contamination, power generation problems, urban homelessness, financial crisis, and epidemics. EVOKE is headed by Alchemy, a mysterious character who interacts via voice-memo and written messages with the agents. The game is an interweaving of reality and fiction; the EVOKE network includes both the fictional agents - whose stories are narrated in the online graphic novel, and the real-world agents - the players. Each week players have to accomplish a *mission*, addressing the following challenges: social innovation, food security, power, water crisis, money, empowering women, urban resilience, indigenous knowledge, and crisis networking. Each mission requires completion of different activities in three categories:

- *Learn:* Provided with information, players attain in-depth knowledge on the topic and are asked to post blogs, photos or videos (evidence) demonstrating or sharing what they have learned about the topic.
- *Act*: The players need to carry out actions in their communities related to the mission and post a blog, photo or video to demonstrate their action.
- *Imagine*: The players need to imagine how they would address the topic effectively in the near future, and post a blog, photo or activity to demonstrate their imagination.

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[67] Along with the above guidelines, the Partnership has also developed 'the Framework for 21st Century Learning' (Partnership for 21st Century Learning Skills, 2011). This is a blend of content knowledge, specific skills, expertise and literacies that students must master in order to succeed in work and life.

A summary of each of the ten episodes and their missions is included later in this section. Players also have to undertake *Quests* every week, to understand their own abilities to change the world. For each weekly quest, players are expected to talk about themselves by posting a blog, photo or activity in order to demonstrate their personal development. Through missions and quests, players are expected to learn about different global challenges, do independent research, collaborate with other players, develop thoughts and ideas, form their own innovation networks, come up with solutions, learn about what it takes to be a successful social innovator and entrepreneur, act to implement their ideas, and have fun while working on the activities.

In every episode, and when a mission is accomplished, players get points from the *Evoke Powers*. The Evoke Powers are: *collaboration, courage, creativity, entrepreneurship, local insight, knowledge share, resourcefulness, spark, sustainability, vision*. These points constitute the main winning criteria of the game. The Learn-activity of the first episode's mission, for example, is worth 1 point of knowledge and 1 point of share, while the Act-activity 1 point of courage and the Imagine-activity 1 point of vision. Players could also assign each other points from the Evoke Powers; each player can give one voting point to another player.

At the end of the ten-week game the players submit *Evokations*. The Evokations consist of visions and proposals for social-innovation projects in a specific subject area and region. Players can view each others' missions and quests, comment on them and assign points to each entry.

At the end of the game, a *leader-cloud page* was set up that showed a list of players who had attained points and placed them in various categories[68]. Players who completed all missions and quests received WBI certificates and are recognized as "*Certified EVOKE Social Innovators*– Class of 2010". Other players who had completed one or more missions and quests were also recognized as belonging to the EVOKE graduate class of 2010. Moreover, the *winners of the Evokation competition* were awarded the following prizes: seed funding; mentorship by respected social innovators, entrepreneurs and international development professionals; and an opportunity to post their project for

[68] These are: newest heroes, emerging heroes, questing heroes, heroes on a mission, power generators, mega heroes, heroes of the week and leading powers heroes.

crowdfunding on the Global Giving challenge site[69]. A group of winners was also invited to an Evoke summit held in Washington DC in October 2010.

In the following paragraphs, I will present the game narrative in episodes, in order to also give a better understanding of the players' goals and actions.

The first episode is dedicated to social innovation. Players learn about social innovation and the EVOKE network. The first mission is an attempt to clarify players' goals as social innovators: *economic opportunity, better education, food security, clean water access, sustainable energy, positive health outcomes, happiness, human rights, justice, community, resilience.* The players are asked to choose one of the main secrets of social innovation, make it their own and make this public. The action-activity is to choose a 'hero' as an inspiration, a person on the web that is 'already tackling the world's biggest problems with creative solutions and entrepreneurial ventures.' The players are also assigned to imagine themselves in 2020.

In the second episode, the topic is food security. Players investigate the global hunger map, learn about food shortages that we may all face, and discover innovations in agriculture. They are also given a list of organizations with actions against hunger. Their mission is to help at least one person that has no access to safe and nutritious food on a long-term basis. They are also asked to imagine what they would eat in 2020.

In the third episode, players learn about innovative ways to create energy(solar, wind, kinetic, organic energy and micro-grids), specific technological achievements (power-generating dance floors, pedal-power sound systems, and solar balloons) and how this knowledge could be easily distributed as open-source. They are asked to find out about other sustainable energy projects, to design by themselves a means to power something they use every day, and to imagine how a celebration-event could be powered in 2020.

In the fourth episode, players learn about the water crisis, the consequences and the cities at risk of flooding because of climate change. They are also given information about fabbing communities, fabrication tools, and technological advances such as OLEDs, hydrocapillary power systems, organic vapor jet printers, and projections on glasses and buildings. Their mission is to help at least one person facing lack of access to clean water. It is also asked of the players to search for organizations with creative ideas

[69] www.globalgiving.org/evoke

for the water crisis – such as the PlayPump, a spinning game that pumps water from underground, and to support their efforts by spreading, donating, and volunteering. Finally, what event would the players organize to celebrate the World Water Day in 2020?

The fifth episode is entitled 'The Future of Money'. The players are asked to invent the future of money by exploring the top creative visions. They learn about the micro-savings in India, as a permanent breakthrough solution, and they are asked to uncover alternative solutions with possible big impacts (e.g. alternative virtual currencies, kick starting, community banks, and the bartering system). Their act-mission is to make an economic transaction using a non-traditional currency or platform.

The sixth episode aims to empower women. The game acknowledges the inequality of women in 20 economies out of the 128 and recognizes a huge economic gap. The players are asked to empower women, economically, educationally, or politically. Links to the laws of women in the Middle East and North Africa, activist movements, and real time news-feed, or business ventures that could help women socially, are provided to the players for investigation. Their mission is to help one girl/woman have better access to education or economic opportunity, by either donating to Global Giving or inviting friends to do so. Finally, they are asked to imagine how the lives of the women they just helped would have changed in 10 years, in 2020.

In the seventh episode, players deal with urban resilience. They learn about what builds up urban resilience: social trust, civic engagement, ecosystem services, and redundancy. Information is also given about the possibilities of extreme fires due to global warming. They are asked to develop their own resilience 'superpowers' and prepare for the volatile future of urban life. In addition, the players acquire technological and software knowledge about a skateboard-motor that looks like a mini-tank, about housing design solutions in case of emergencies, and about digital means to map and share information real-time during disasters. The game requires players to identify a possible future natural disaster in their local area, find what data would be needed to track this, explain how resilience would help, propose changes for increasing the city's adaptive capacity, and imagine a future map of the city highlighting all of its new resilient features. They are also asked to find the 'secret' (sic) already existing resilience plan of their city and spread it.

The eighth episode is about indigenous knowledge. The aim is for players to understand the value of ecosystems in 'creating sustainable solutions to development

challenges'. The players' mission is to 'help ensure that indigenous knowledge is put to good use today—and not lost to future generations'. For that purpose, they learn about plants' properties, animals under extinction, the dangers of 'wild-life tourism' and the anti-poaching heroes. They also learn about making soil, biopiracy, the tantalum mining dangers, conservation farming, and the child soldiers in Congo. All in all, they get informed about the exploitative appropriation of indigenous forms of knowledge for commercial reasons. Furthermore, they are informed about the attempts of the World Bank to raise awareness of the importance of indigenous knowledge in their development activities, so as 'to improve the benefits of development assistance.' What is expected from the players is to find out more about the movements that put traditional knowledge to better use, and spread their success stories. Players also become guardians of an indigenous secret, by creating a real physical object that encodes a piece of traditional wisdom to be transmitted to future generations. The imagine-activity encourages players to see themselves at the age of 100, and to record an urgent message passing on their elders' wisdom.

In the ninth episode, players learn about crisis networking. They learn about epidemics, the panic and the misinformation that might follow; dark websites, micro-franchising, micro-clinics and infodemiology. Guidelines for future pandemic management are given: psychological first aid and virtual emergency response. Players learn about open-source software supporting health services by sms, about the benefits of cube-sized satellites, and about other mobile medical applications connecting rural doctors with a global network. The players choose to share with the network one of the five secrets of crisis communication: coming to terms with uncertainty, covering risk, outbreak communication, managing panic, and how people react in a pandemic. Their mission is to design and build a real emergency dark site focusing on any potential future crisis by collaborating with other players. At the imagine-section the players create their own emergency call for a pandemic flu and organize a group of non-medical people to do something that matters.

The tenth episode asks players 'What Happens Next?' The mission is to help create Season 2 of *Urgent: Evoke* by suggesting forthcoming adventures for the game: 'EVOKE has transformed many cities and communities, but our work is far from done. We want to make EVOKE bigger, better, more resilient, more creative, and more accessible in the future.'

The players are asked to continue the story, writing the script for the 1st episode of the 2nd Season of *Urgent: Evoke*. What new characters will arise and how will they evolve as heroes? Will EVOKE change the way it works, now that the secret is out? What experience would the players desire? The resources provided relate to how to write comics and graphic novels. Moreover, players are assigned by Alchemy to write the official EVOKE manifesto, clarifying the goals of the network, the way it works, who the members are and what the ethics of being a good EVOKE agent are.

To tackle all the above problems, the fictional characters of the novel first introduce some *'innovative' solutions;* they build windmills and roof-gardens, create community banks, convince the market to create job opportunities for women, make business with enterprises of water-purifiers to save London from water contamination, convince wealthy ex-patriots to make financial investments in their homeland to tackle the economic crisis. What is more, every episode gives players the chance to further *investigate* by providing, through a list of web-links, supplementary explanations of facts mentioned in the story, descriptions of technological achievements used in the story, as well as economic and political articles connecting the graphic story to reality. Furthermore, players can *discuss* every episode in a forum created for this purpose.

In all these episodes, players 'work' as social innovators for EVOKE. EVOKE is a network that does not exist officially. Yet, *the EVOKE Network* organizes its actions in full cooperation with the states and has an excellent reputation among state governors for rescuing the states from massive catastrophic risks, e.g. power outages, political crises, health outbreaks, and other social disruptions. In fact, EVOKE gives orders directly to the governors, who call EVOKE when facing extreme problematic situations. For example, the graphic novel starts with Tokyo being at risk of a famine and the governor of Tokyo calling the secret EVOKE for help (episode 1, p. 1). After their agreement to 'fix' Tokyo's food shortage, the governor provides EVOKE and its members with full access to the public land and local resources, in exchange for 50% share in the profits. EVOKE gives all the credits for the resolution of the problem to the governors. This is also why everything is 'off the books' (episode 1, p. 6-7). As for the EVOKE members, it seems that they aim as well to make a profit, seeing their work as a business opportunity (episode 1, p. 5). What is also noteworthy is that, although the novel-members of EVOKE seem to act independently; they always report their ideas, the problems confronted, or the progress of their innovations to *Alchemy*. Thus, there is hierarchy in the network, and Alchemy is the leader.

Finally, a significant character in the graphic novel is '*Citizen X',* projected as the antagonist. Citizen X is a journalist trying to document EVOKE's actions, discover who is behind EVOKE, and publish these secrets in a journal.

Summarizing the Values resulting from the Formal Game Analysis

To help the reader keep a record of the results of the formal analysis of the game, I summarize the encountered values in a list (see Table 8, p. 174-177), structured by taking into consideration the vocabulary of the formal game analysis: goals, actions and narrative elements. In this process, I also took the opportunity to examine whether the noted values are instrumental or terminal, which is helpful for the subsequent VEGA analysis.

Hence, I start by analyzing the***21st century skills*** (see line A. in Table 8, p.174-175) as defined by the game as its learning objectives, as well as by the Partnership for 21st Century Skills (2009)**.** These skills depict knowledge and abilities that mainly constitute instrumental values. The only terminal value is the individual *success in life and career*.

Another significant objective of the game is making players think like ***social innovators*** (see line B. in Table 8)**.** For 'mastering the mindset of a social innovator', certain instructions are provided by the game, including the '*33 secrets of social innovation'* (Zuckerman, Smith, & Polak, 2009). A deeper examination of these instructions shows that the represented values are mostly instrumental.[70] Furthermore, through brief research I did on the general concept of social innovation (Mulgan, Tucker, Ali, & Sanders, 2008; Murray, Caulier-Crice, & Mulgan, 2010; Phills, Foundation, & Grantmakers, 2009), I discovered that social innovation is a complex term with overlapping meanings. Social innovation is a challenge for *financial investment with a good social impact*[71]. It is related mostly to social policy and service delivery, and besides the government, it can be initiated by social movements or social and private enterprises. What is noteworthy is

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[70] A value that could be considered terminal is improving people's lives (30st secret), which however is very abstract as a moral objective.

[71] Older achievements considered social innovations are e.g. self help groups and social volunteer work, the foundation of cooperative banks, and the Mondragon network of cooperatives in Spain. As for recent examples, social innovations are the model schools or towns created by business leaders; the socially-oriented supply chains that reflect the values of the venture; crowd-funding; magazines sold internationally by homeless people; the concept of microcredit; the idea of engaging the private sector in providing city services; or, bottle deposits (known as 'Pfand' in Germany).

that, in most definitions, the term social innovation is indistinctly connected to *business* and *profit*, and especially in some financial journals and business schools, it is even substituted by *social entrepreneurship*. A market orientation bias is evident in the social innovation secrets of the game as well[72] (Zuckerman et al., 2009).

Values seem to be additionally implied in the ***goals of the EVOKE network*** (see line C. in Table 8). These values are not just instrumental values, but terminal, and they are actually imposed on the players, as players become direct members of the network when starting to play. EVOKE network suggests *making the world better by the means of earning profit* (*individualism, making profit*), allowing private entrepreneurship to exploit public resources (*privatization*), and secret arrangements with governors to tackle social problems for which they are accountable, while giving them the credit (*opacity and absence of democratic control*). Furthermore, there is hierarchy in the network, because Alchemy supervises all agents' actions, while he is the one making the profit and dealing with the government representatives.

Finally, ***as EVOKE agents, players are expected to confront various problems every week*** (see line D. in Table 8). In my analysis I need to consider the values transmitted through these actions. In every episode, players are asked to complete the given missions by searching and finding *their own solutions*, and plan their actions using their personal skills and imagination. The game activities (Learn-Act-Imagine) encourage them to constantly do so. In this endeavor of resolving the global challenges, the only guidelines explicitly provided by the game are a list of values, including *better education, happiness and human rights, against poverty, against climate change, and against hunger*. Apart from these, it is worth considering the *values transmitted through the knowledge provided* to players to complete the missions, as well as *through the initial solutions proposed by the game.* In fact, values are even implied in the selection of problems to be confronted. A close examination of this content shows that these values are similar to those previously encountered; EVOKE agents avoid dreadful situations by leading groups of volunteers, making key social connections and entrepreneurial agreements, using high-tech devices, social media and DIY techniques provided online. The aim is to benefit both the people and the market.

[72] Particularly in the secrets 3, 7, 8, 22.

Lastly, a design element that should be taken into account to convey values is the ***criteria for winning the game*** (see line E. in Table 8). A set of criteria for winning and judging others' ideas is the predefined set of EVOKE powers. Most of these values are instrumental[73], with only a few that can be considered terminal, e.g. *changing the world, discovering and showing the world what each player is good at*. Another demand from the players in order to win the game is to send their *Evokations* to be judged by senior education specialists at the World Bank Institute. However, as reported, 'the criteria for the evaluation of the Evokations were not made available to players' and not at all to the public(Hawkins, 2010, p. 41–42).

Game Values		Instrumental	Terminal
A. 21st Century Skills	▪ Creativity ▪ Innovation ▪ Critical Thinking ▪ Problem Solving ▪ Communication ▪ Collaboration	✔	
	▪ Flexibility ▪ Adaptability ▪ Initiative ▪ Self-direction ▪ Productivity ▪ Accountability ▪ Leadership Responsibility ▪ Social Cross-Cultural Skills	✔	**Success in life and career**

[73] Instrumental values are for example: 'creativity', 'local insight', 'knowledge share' and 'spark'. Interestingly, even 'vision' is instrumental, as it prompts players to plan 'big' for the future, without giving directions on the content. 'Resourcefulness' could also be considered terminal, but defined as 'finding resources even if it seems that there is no [resource]' makes it instrumental. The same applies to the values of 'entrepreneurship' and 'sustainability'; players are asked to combine 'responsible use of the natural resources' with 'sound business strategies', without referring to any end-state goals.

B. Social innovation	Secrets of Social Innovation: ▪ Creativity to reuse resources ▪ Exploitation of already existing resources, knowledge and technologies ▪ Involving people in production ▪ Respect for local cultures ▪ Listening to people to understand problems ▪ Thinking about big projects for at least a million people ▪ Sharing knowledge and skills ▪ Selling rather than giving for free ▪ Finding simple innovative solutions, easily understandable, cheap (reducing materials) ▪ Economic sustainability: paying workers as motivation	✔	**Meeting social needs with innovative business ideas**
C. Players as EVOKE agents	Values of the EVOKE Network: ▪ Individualism ▪ Thriving for profit ▪ Opacity ▪ Hierarchy ▪ Privatization of public resources		✔

D. Players addressing global problems	▪ Against: poverty, climate change, hunger, inequality, water insecurity, disease, ignorance and apathy. ▪ Creating: economic opportunity, better education, food security, clean water access, sustainable energy, positive health outcomes, happiness, human rights, justice, community, resilience		✔	
	Player's personal values		✔	
	Investigation / Learn-Act-Imagine activities: Values embedded in the content		✔	
E. Winning criteria	Evoke Powers: ▪ Collaboration ▪ Courage ▪ Creativity ▪ Local Insight ▪ Knowledge share	▪ Resourcefulness ▪ Spark ▪ Vision ▪ Entrepreneurship ▪ Sustainability	✔	**Change the world** **Discover and show the world what you are good at**
	Evokations: Values of other players' and WBI' specialists' judgment		**Unknown**	

Table 8: Values extracted through the formal analysis of *Urgent: Evoke*

3.3.2. VEGA Analysis

3.3.2.1. Game analysis with the Model VEGA-I

Aimed Values: The values aimed at by the design of *Urgent: Evoke* are summarized in Table 8. It is evident that the game encourages players to share their visions and act freely, based on their own creative ideas for resolving global problems. With this aim in mind, they are given a set of instrumental values. Apart from those, there are other values hidden in the story of *Urgent: Evoke*. This leads to the conclusion that the design of the *game fits the approach of values clarification,* in which individuals are encouraged to clarify their values and decide on their actions freely, while the imposed values are addressed only for this clarification process.

Who defines what is right and wrong in the game: Right and wrong in this game are not clear, or evident. As previously illustrated, the game design allows players to discover and share their ideas, to discuss and vote for other players' projects, as well as to act locally and globally, based on their own judgments. In the last episode, they are even asked to continue the graphic novel by themselves. One might assume therefore, that right and wrong in this game is defined mainly by the *players.* Is this, however, completely true? To answer this, I need to explicitly analyze the values conveyed by the game (as illustrated in Table 8), while also examining whether these values can be considered universal or relative.

Starting from the 21st Century Skills (see A. in Table 8) it is unknown whether these values apply equally outside the US context, e.g. in developing countries or Europe. In any case, there is no explanation regarding how these specific values - and not others - were derived to be considered the skills that every US citizen should develop[74].

The principal learning objective is *to make players think like social innovators* (see B. in Table 8). This is a set of instrumental values clearly imposed on players from the first episode. Some of the social innovation secrets are universally accepted, e.g. 'respect of other cultures' and 'sharing knowledge'. Whereas others, e.g. 'embracing the market', 'designing products to help at least a million people' and 'selling something rather than giving it for free', constitute instead entrepreneurial advice rather than the promotion of

[74] The 21st Century Skills national organization does not provide any scientific source, or any social, political or educational agenda supporting the claim that these skills should be considered the basis for the 21st Century.

collective universal values. Furthermore, many of the above values are *abstract,* having various meanings, such as succeeding in life and career, changing the world*,* and effective interaction with others. This abstraction lets the players define the behaviors associated with these values. When the objectives are, for example, 'increasing both innovation and quality of work', or 'demonstrating integrity and ethical behavior by using influence and power', it is the players who interpret the above abstract terms by means of real-life actions, based on their own understanding and moral criteria.

The hidden values underpinning EVOKE's network in the game-story (see C. in Table 8) are also imposed on the players, which means, to play along with its opacity and its urge for profit out of extreme catastrophic situations. It is very telling that in this obscure context, the antagonist role in the graphic novel is given to Citizen X, a 'dangerous' journalist who tries to reveal the network's existence.

On the other hand, and as mentioned above, players in the game are given a great deal of freedom. They can do their own research on issues addressed in the game, plan their own activities to solve problems, publicly express their opinions, comment on the ideas of others, choose players to collaborate with, organize actions by mobilizing people even outside the game and use their imagination to plan future moral actions (see D. in Table 8). As for the winning criteria of the game (see E. in Table 8), the Evoke Powers represent values that can be considered universal and commonsensical. During the gameplay, the game designers do not intervene by judging or enforcing any particular view. Only the game runners are assigned to offer Evoke power-points to the players, when a mission is completed. The same does not apply, however, in the *Evokations, which are judged by specialists from the WBI using their own unknown criteria*[75].

In general, the extensive freedom provided to the players excludes character education as an approach that fits *Urgent: Evoke's* design. Furthermore, the designers do not attempt to direct the development of players' critical reasoning by creating moral conflicts. Rather their efforts are towards making them aware of global problems and motivating them to reflect on possible solutions. However, it is not only the players who decide upon right and wrong. There are values conveyed to the players without their consent, mainly

[75] As it is reported though, this will not continue in future versions of EVOKE play; 'while this report includes no information suggesting that the evaluations were anything other than fair, future iterations of EVOKE will benefit from consistency and transparency in this area' (Hawkins, 2010, pp. 41–42).

through the learning objectives, the game-story, and during the gameplay. These values are mostly instrumental, meaning that they are not related to the moral content of players' views, but rather to the 'right' way of thinking. This is attributed to the VE approach of values clarification.

The question that arises here is: what happens if a player attempts to oppose these values? What if the players are not keen on becoming entrepreneurs to save the world? Or, what if they dispute some instrumental values, e.g. freely giving instead of selling their abilities? Some of the players argued around these critical questions in public during the gameplay (Alchemy, 2011):

'Still disturbed by the presence of "branding" in the evoke agent's activities (...) combined with the claim for 50% of the profits last week (...) while wanting to remain anonymous about their involvement - Something about this is kinda dystopian to me.'

' (...) Perhaps Alchemy is actually behind some kind of sabotage which creates food shortage which then allows him and Evoke to profit from giving the solution. (...)'

' (...) how do you explain the 50% profit Evoke takes? Alchemy profiting off the goodwill of everyone else's activity?'

'If they were worried about running costs, they would have a flat fee. If they take 50%, then of course any thing they're involved in must be profitable, so they too can profit. You're right to be shocked. It's shocking. It's terrible. It doesn't pass the simplest, child-level intellectual test.'

However, most importantly, these comments are not expected to change anything in the game, besides merely attracting some supporters. Here, I present another example of opposition to the values of *Urgent: Evoke,* through the experience of a player (Cameron Keys, 2012):

'Several users — chief among them "Panamericana" and "Sarah O. Connor" — (...) with expertise in a variety of world-class software tricks, intentionally disrupted gamer culture, blasting comments pages with critiques of World Bank practices, "the hypocrisy of constructing a game to solve problems the World Bank would create," etc. When moderators attempted to block the users, they appeared in greater numbers under a host of different user names, offering persuasive rhetorical flourishes about democratic gaming standards and the questionable ethics of forum moderators, eventually forcing Jane McGonigal herself to post direct responses on the Evoke site. Allegedly, Panamericana violated the rules and threatened Jane McGonigal in some way. For several weeks, all the top-scoring gamers, while striving to win the grand

prize trip to World Bank headquarters, were also being recruited by the Argentinian activist gamers to participate in an Evoke offshoot called Delta Squad, a sort of proxy website for sharing data on cyber warfare, DIY cryptography, et cetera.'

It appears that some players who explicitly opposed these values were banned by the Evoke moderators. It is not an overstatement to say that *any debate around the game's core values has been silenced.* Nonetheless, some well-argued critical reflections on the game practices and values were publicly expressed:

' (...) Jane McGonigal's collaboration with the World Bank proceeded thereafter, for a total of 10 weeks; but honestly, from a gamer's perspective, the innocence was gone. The activists had introduced a radical alien culture to the Edenic bubble of Urgent: Evoke. Was I participating in an educational immersion — A Crash Course in Changing the World — or were these missions an unprecedented form of gamer exploitation? Here I was spending thirty hours a week searching for solutions to food shortages in Africa, offering advice to doctoral students and NGO workers writing business plans for new companies to assist in the honorable and dignified pursuit of improved quality of life and sustainability; but I could not shake off the question of how to analyze and evaluate my gaming experience. This was not the purely fictional World of Warcraft. This was a game about the future of the actual planet, designed by a powerful institution. This was a game that explicitly told you: "This is not a game" [referring to (McGonigal, 2003)].'

Following this criticism, *a parody-ARG has also been launched, called INVOKE - an 'ARG to save the World Bank'; 'A crash course in saving capitalism'.* The argument of INVOKE is that capitalism and institutions like the World Bank are actually responsible for the world's poverty. Or, as Waddington (2013, p. 51) in his political analysis of the *Urgent: Evoke*, states:

'Is nimble capitalism really the solution to serious social ills, or is more radical change needed? Although social enterprise is more humane than naked exploitation, it may not be nearly as powerful a tool for social change as Evoke claims. As its episodes repeatedly demonstrate, Evoke's ideology is one in which the government appears ineffective and powerless, while homegrown, market-based solutions are cheap, democratic, and transformative. Although market based solutions undoubtedly have some potential, one could argue that touting social enterprise as a panacea serves

to distract from the more fundamental structural reforms that are needed to address social and environmental challenges - wealth redistribution, for example.'

As expressed by an experienced player, criticism had no space within the game and had to be expressed from outside: 'So I see two challenges: one is whether the critics will be heard within the game's own discourse channels. Second, if the Bank's game is only one perspective, who will fund alternatives? (...) If the learning of Evoke is powerful, do we need comparative gaming to ensure open minds?' (Stokes, 2010)

End-state of the individual and society: To answer this question, I focus on the terminal values of *Urgent: Evoke*. One of these is: bringing *success in life and career* (see A. in Table 8). The means to achieve success in life and career are the 21st Century Skills, which are mainly skills for problem solving, social communication, creativity and productivity, as well as leadership, accountability, responsibility, flexibility (being able to travel for work at any time), and adaptability (easily adjusting to new situations). The individual, moreover, is required to be self-confident, and take initiatives and risks. The second aim of the game is to make the individual think like a *social innovator* (see B. in Table 8), which means finding and organizing knowledge and human resources, in order to tackle local or global problems. The individual is expected to come up with innovative ideas that fulfill social needs while simultaneously being profitable, in economic terms. All these skills and values are embodied by the characters of the graphic novel.

Through the missions and the quests of EVOKE (see D. in Table 8), players are further motivated and trained as social innovators. As noted in the evaluation report, factors that increase players' potential to engage in development or social innovation, are their 'unformed career goals, diverse work opportunities, minimal family and financial responsibilities relative to other life stages, and their readiness to participate in advanced degree programs' (Hawkins, 2010, p. 43). These are therefore the ideal conditions for an individual. Moreover, imagining the future helps players to clarify their own end-state values. The individual should also take into account the Evoke powers (see E. in Table 8); thinking of big projects, while having local insight as well as courage to take risks and tackle unsolvable problems.

All things considered, regarding the aims for the individual, the design of *Urgent: Evoke* resembles the values clarification approach. The objectives are making individuals aware of global problems, think of new ideas and actions according to their values, find meaning and success in life, and become self-confident. 'Linked to these skills, and to the

overall goal, were a "basket" of EVOKE objectives, such as helping players learn to identify social challenges, engaging players in activities that they perceive are socially and personally meaningful, and developing players' self confidence, among others" (Hawkins, 2010, p. 11).

As for the vision of the game regarding society as a whole, what is primarily illustrated in the objectives of the game, is *to change the world and solve global problems in a way that the market also flourishes* (see B. in Table 8). This probably also explains why social problems are referred to as 'social challenges' in the game, a term that underlines the notion of entrepreneurial opportunity to make profit. Another point to note here is that, although the presented social problems are devastating, the impression given to the players is that there are a variety of plausible solutions that any individual can find through some research on the web. Having said that,the societal vision of the game is partly determined by the players as well, through the missions. The dominant values in this process are e.g. *fighting against ignorance and apathy*, and *creating happiness, human rights and justice* (see D. in Table 8). Finally, some additional societal values are implied by the Evoke powers (see E. in Table 8), i.e. *collaboration*, *knowledge share*, *sustainability*[76], and once more *entrepreneurship.* All these values regarding the societal vision of the game, fit with the values clarification approach. However, what should be also included in the analysis regarding the societal values of the game, is the obscure nature of EVOKE network (see C. in Table 8): *opacity bordering on the absence of any democratic control or collective participation, hierarchic and in its essence profit driven.*

3.3.2.2. Game analysis with the Model VEGA-II

'If you didn't spend some time on the site there is little opportunity to learn something from the game. Some people went through it as a solo exercise and they learned something but what they learned is limited, but they are certainly acquainted with new information based on the missions. Then there are other players who were challenged by ideas, who engaged in debates and discussions about the ideas, talked about what they had learned and put their ideas into practice.'

(Statement from a game runner, in (Hawkins, 2010, p. 59))

i. **Reflection upon own life experiences:** The players of *Urgent: Evoke* are encouraged to write their personal stories in the Quests of the game, which consist of

[76] Sustainability is defined as the responsible use of resources.

questions like: **'**Who inspires you? What sits you on a path to change the world? Each quest is a question that only YOU can answer. (...) Answer all 10 questions and write the story only YOU can tell. Find a quest. Tell your story to the world. (...) Every hero has an origin story. It's time for you to discover yours!'

Moreover, in the first episode's mission, the players share their experiences of justifying why they chose one of the 33 secrets of social innovation, and why they are particularly attached to it. Two of these secrets especially place particular emphasis on players' living experiences (Zuckerman et al., 2009); i.e. the 8th secret prompts players to 'try living for a week on $2 a day', while the 9th one to 'listen to the right people'. Furthermore, in the act-mission of the fifth episode, players are asked to try out an alternative currency or exchange system for themselves! To get this 'real, firsthand experience with innovative economies', players get points of courage. The value of experience, as a source of knowledge and wisdom, is stressed in the mission of the eighth episode as well, with an old African proverb emphasizing the importance of living knowledge, 'embedded in local practices, and passed on from one generation to the next.'

ii. **Discovering what values:** In the mission of the second episode, the game asks the players 'to enhance the dignity and joy of growing, preparing, and eating food', which in fact aims at making them understand the value of food production. Additionally, in episode four, the game challenges players to acknowledge what water security means and the importance of safe water for all human life, by discovering e.g. that one in six people in the world do not have access to water supply, or the magnitude of diarrhoeal diseases and water-related illnesses. An additional statement of Alchemy in this episode also supports this strategy; 'The best way to help solve a problem is to do what you love' (episode four, p. 2). This statement also appears in the investigation of this episode, encouraging players to discover their 'signature strengths' and their 'signature weaknesses', which means to discover what they like to do and, therefore, what they are good at.

In episode five on the future of money, while players learn that 'our global economic system leaves half the world's population dangerously underserved', they are also instructed to reflect on the value of money, as 'an invention of the human mind' that apart from economic dimensions, has also psychological and social dimensions.

In the act-mission of episode eight, players are asked to design and create a physical object in order to document an indigenous secret. To accomplish this mission, the players need to choose a secret and explain why they believe it is important to pass it on to future

generations. Furthermore, in the learn-mission of the same episode, the strategy of discovering what has value, is encountered when players learn the story of John Kasaona, a 'world-changing conservationist' who grew up watching his father hunt and kill endangered animals in Namibia, but nevertheless, today works to protect animals in Namibia, as part of a community-organized effort to increase wildlife tourism in the region. The value of the animal population in the village is emphasized as a source of tourism in the long-run.

iii. **Consequences of present actions:** Episode two, dealing with hunger and food security, applies this practice very clearly. The learn-mission requires players to 'understand today's reality', as well as the future consequences, in order to be able to change the future. Similarly, in the third episode, while learning that today less than 10% of global electricity is produced by sustainable energy sources, the players' mission is to help change this, by understanding, first of all, that the energy future of the planet depends on our present actions. In the investigation-questions of the forth episode, players learn about climate change which leads to flooding, which leads to cholera outbreaks. Likewise, the investigation-questions of the seventh episode - involving extreme fires - connect the present situation to the consequences that will appear in the next decade. Another example is the mission of episode six that illustrates the direct social benefits of donating, by buying bricks 'to build classroom walls for a new girl's science lab in Uganda', or training young girls 'as peer leader-educators in Bangladesh'. Directly afterwards, players are challenged to imagine how the lives of these girls will be in 2020. This requires them to find out more about the present life conditions of the people they are trying to empower.

iv. **Search for knowledge - Identification of problems:** The learn-missions provide players with resources (articles, organizations, projects) and expect them to conduct deeper research and form their own opinions and ideas on the issues addressed. For example, in episode four, players learn how the *PlayPump* works, and they have the mission to discover more similar projects by investigating the resources provided. The investigation-questions are designed for the same purpose; to provide hints and to motivate players for further research. For example, episode five challenges players to investigate the use of alternative currencies, find an example of a successful alternative currency, and later invent their own. In episode eight, however, players are just asked to investigate whether the facts presented in the graphic novel are real: 'Are gorillas really threatened with extinction in the Democratic Republic of Congo? (...) Is the DRC really

the richest nation in the world, when it comes to natural resources? (...) Is there really such a job as "head gorilla protector"?'

Players are also given the opportunity to get 'advanced training' with '*BONUS: Expert level investigation files',* including more information to learn (about indigenous knowledge), act on (framework for action), share (online seminars from the World Bank Indigenous Knowledge Program) and try (Community Knowledge Exchange Tool Kit).

Players are motivated to conduct their own research as well enact and imagine- missions. The mission of episode six, for example, teaches players about the huge economic gender gap that exists worldwide, and challenges them to empower women (economically, educationally, and politically) by taking action through particular programs of the United Nations Population Fund (UNFPA). Similarly, the imagine-activity of episode seven, asks players to highlight how the resilient features of their cities would be in the year 2020. Their imagination is stretched by information from the future Resilient Cities Competition, the resilience city-plans of San-Francisco, Cape Town and London, or the website with the title 'Urban Resilience Planning for Dummies' (Warren, 2010). Additionally, the game helps players' research by giving them specific hints, e.g. the terms by which they can yield interesting online information. In the same episode, the game shows players a powerful new tool for sharing information in a crisis and assigns them to use their local insight to identify a possible future crisis in their area. Furthermore, the investigation files from episode nine, aim to teach players about infodemiology, platforms, technologies and social innovations that can help in the event of a pandemic. They are also encouraged to design a dark site following specific instructions. Likewise, the activities from episode ten prompt players to get inspiration from the investigation files and use their most creative ideas to write their own script for *Urgent: Evoke's* Season 2. This task requires them to define the social problems that the EVOKE Network should tackle next, where the network should try to build new EVOKE communities, and what new tools an EVOKE agent would have. Finally, it is important to mention the Evoke powers relevant to this practice; 'local insight' - for doing research at a local level, and 'spark' - for developing creative ideas.

v. **Wrestling with issues not acknowledged before:** In the investigation of episode five, players deal with questions such as: 'What would you study in a course on resilience logistics?'; 'What causes a currency collapse?'; 'What's really going on in the Cuban economy today?'; 'What are community banks?'; 'What's a diaspora?'. Players are also

provided with information on these topics. Similarly, in all episodes, the investigation files provide players with the motivation and some basic information to address issues that they might not have encountered before.For example, in the seventh episode players are motivated to learn about the crazy vehicles the EVOKE team is riding, the elemental houses, the hexayurts, and the new Ushahidi mapping tool for sharing information in a crisis. Similarly, in episode eight, the investigation files inform players about the real child soldiers of the DRC, and in episode four, players learn about fabbing, how electronic fabrication tools work, organic vapor jet printers, and how to construct a real hydrocapillary power system.

The same applies for the learning missions of the episodes. More precisely, the learning-activity of episode two consists of learning about the global hunger map, possible future food shortages, and innovations in farming and agriculture. While in episode seven, players are asked to look into resilience science.

vi. **Imagining the future:** The graphic novel is set in 2030. This means that the game engages players to imagine the future. Besides this, each episode assigns an imagine-mission to the players, challenging them to describe their future in detail[77].

For instance, in the first episode players are asked to imagine their future self in ten years from now; what is the best-case scenario, where they will be living, and how they will be helping to change the world as social innovators. In episode two, players describe their future dinner using what they have learned about food security. In episode three, a special celebration in the year 2020 is narrated, focusing on sustainable energy sources that make it happen. Episode four asks players to design a spectacular event, challenge or demonstration for World Water Day, 2020. In episode five they move to 2020 and have to report on breaking economic news for Citizen X, as 'the closest shadow journalist to the scene.' In episode seven players are again brought to 2020 to design a map of their city, highlighting all of its new, resilient features. Finally, in episode eight players imagine, record and upload a local secret that they would pass on to future generations about their local environment.

[77] As it is also asserted in the imagine-activity of episode one: "What I treasure most in life is being able to dream. During my most difficult moments and complex situations I have been able to dream of a more beautiful future." (Evoke., 2010) A quote by Rigoberta Menchú Tum, Nobel Peace Prize Laureate.

Apart from the above imagine-missions, forecasting the future is integrated in some learning and acting activities too. For example, in episode two players discover that by 2100 half the world's population will face a major food crisis, and they learn about possible food shortages and fights about food in the future. Similarly, in episode five players invent the future of money, by using their imagination while exploring the sources provided on this topic. Episode seven also refers to the future, preparing players to build resilient cities in a volatile urban future. Finally, in episode nine the mission is to master the skills of psychological first aid and virtual emergency response, extremely important skills during crisis management. The most likely worldwide outbreak is a pandemic; therefore the game prepares the players for an influenza crisis.

'In a worst-case scenario, hospitals would not be able to take care of all the sick seeking help; people would be forced to search for food; dead bodies would emerge faster than morgues could process them; supply chains and local services such as waste-management and electricity would eventually break down; and much of this would happen simultaneously across the nation, and likely around the world. Even so, 98 out of every 100 of us on this planet would get through the pandemic. So the real question is how do we get society through it?'

When it comes to episode ten, the game spurs players' imagination by asking them to write the first episode of *Urgent: Evoke's* Season 2, set in the year 2021. How would the main heroes evolve, what challenges would they take on, what technologies and solutions would be available then? Another imaginative task required by the players is writing 'the official EVOKE manifesto'. After the secret about the network is revealed, the world wants to learn more about the goals of the network, the members, the modus operandi, and the agents' ethics. While building the new profile of EVOKE, players are also asked to define how useful imagination is for tackling any problems encountered.

Imagining the future is used as a moral practice in the investigation questions as well, with relevant informative online sources. For example, players are asked whether they will make their own electricity in the future (episode three), or they are provided with videos of female activists and world leaders speaking out about their vision for the future (episode six). Also, the power of vision, one of the Evoke powers, would fall into this practice.

vii. **Empowerment of self-confidence:** Increasing self-confidence is among the main objectives of the game included in the 21st Century Skills. To evaluate the game, the producers measured players' self-confidence and provided the results (Hawkins, 2010, p.

29). As it appears, participation in EVOKE had a positive impact on players' self-confidence, especially on sub-Saharan African players[78]. The interview responses indicate that what played a role was the approval of players' ideas in their blogs, the encouragement within the Evoke players' community, and the general feeling transmitted by the game, that each of the players could contribute positively and act to solve problems. As a South African player - and Evokation winner - described (Hawkins, 2010, p. 39): 'Evoke gave a safe place to put the idea out there and when no-one laughed but actually had good things to say, it gave me the confidence to approach others. (...) So, I can only imagine that there are many students out there with similar ideas, but without the confidence to pursue them.'

viii. **Pride:** Every week players are asked to share evidence of accomplishing the missions. This makes them feel proud, especially when their posts are favored and praised by other players. Besides this, in episode eight, the players' objective is to choose and uncover success stories of communities and social organizations (derived from the CBNRM Net's collection - including more than 250 case studies from 75 countries, or, from the KIVU Project for Indigenous Knowledge).

ix. **Empathy:** The game fosters empathy of players through the story, as much as through the information given in the missions. The novel fosters empathy primarily for the agents of EVOKE. For example, episode five clearly shows the problems created for Eureka's family due to her long absence; her daughter misses her because she is left alone with her father and her grandmother, while the grandmother does not understand why Eureka needs to work so far from her home (episode five, p. 4). The story of Alchemy is also described in the novel, fostering feelings of empathy (episode eight). Alchemy narrates his past when, as a child, he was taken by rebels, and how he was raised to become a soldier and a thief. When he was double-crossed, Alchemy decided to employ all the knowledge he had to change the world for the better. This is how he founded the network. Furthermore, in episode six the novel story includes some women's stories; their lives, their dreams, their efforts and their restrictions of freedom: 'I'm a doctor. I cannot leave my house to see patients whenever my male driver fails to show up. (...) My

[78] More precisely, the survey showed that Evoke had a strong effect on players to think big about the future (60%), picturing themselves starting something new (60%), building their self-confidence (37,1%), and imagining the design of a small business or NGO (48,6%).

country allowed me to earn a law degree, but it forbids me from appearing in court. (...) No one will look at my business plan. No wonder only 1 out of 4 women have jobs here.' Moreover, players in the learning activity of the same episode join the *WomenWatch*, an information gateway for the promotion of gender equality, and choose a story from its news feed to be investigated. These stories aim to foster empathy. Another example is the act-mission of episode four, when players are informed that today, one out of every six people on Earth lack access to clean water, and two out of every five people lack access to basic sanitation. As a result, water-related diseases cause the deaths of over 5 million people each year, mostly children; the act-mission is to 'take action to help save at least one of those lives.'

x. **Choosing between alternative options / Pros and Cons / Prioritization of values:** In the missions of *Urgent: Evoke*, players are very often challenged to choose between options provided by the game; either with specific criteria, or just their favorite, for example, to choose from the secrets of social innovation. In episode four the learning activity asks players to pick their favorite awe-inspiring clean water project and tell the EVOKE network about it. While in episode nine players have access to secrets that can provide critical help during a pandemic, and their objective is to 'pick one piece of insight' they think is most surprising and important. In both cases, players are assigned to explore different options and prioritize their values. Likewise, in the act-mission, when players build their own real dark site, they need to select the most 'crucial information to help individuals thrive and survive during even the worst crises' (a deadly heat wave, a food shortage, an oil crisis, riots, etc). In episode eight again, the Investigation-Questions challenge players to find alternatives for eco-farming and explore each option's benefits and dangers. The same applies for the pros and cons of wildlife tourism. While the imagine-activity in episode nine brings players to the next pandemic flu and asks them to organize, online, a group of people to take action. In this case, apart from devising a crisis networking solution, players need to select who they would 'call on to make a heroic effort'. Finally, players vote for other players' ideas. They reflect on each project's pros and cons to assess it, and prioritize their own values to vote for some of them.

xi. **Free public expression of personal viewpoints:** This technique is definitely encountered in the game. As already illustrated, players are encouraged to publicly express their views and ideas, and discuss them freely with other players. Moreover, every week, when players accomplish the game mission, they are required to provide evidence and reports in the form of a photo, a video or a blog post. The same applies to

their personal opinions and ideas, shared in their blogs or in the discussion forum. In episode five, for example, players are asked to think of a creative solution for the future of money, to back up their story and share it with 'visual proof' - including at least one original video, photo, or artwork created by them. Similarly, in episode ten, players are challenged to share drawings, or photo essays, with their ideas about the EVOKE manifesto. Furthermore, the act-mission of episode six motivates players to either donate money, or alternatively, 'spread the word' through Facebook and Twitter, inspiring their friends beyond the game network to support women's equal rights and opportunities. Their objective then, is to contribute, together with friends, family, or neighbors to a social venture focused on empowering girls and women. They should also finally, make public their efforts to donate, or to raise awareness, in a blog post, video, or photo essay.

xii. **Discussion to conceive new ideas and knowledge:** The game provides an online discussion forum where players are invited to share ideas, views and knowledge. In the discussion forum players also discuss the meaning of each episode, special difficulties they encountered, further research they have done, or any matter they simply want to share, without any judgment or limitation from the game designers. Through the discussion forum, players learn further and come up with more ideas. This is evident, for example, in episode two which prompts players to look for help in the discussion forums, and to also ask for help there, from other agents and mentors. In episode three as well, the learning mission is to find a '*Power player*' -someone working on a creative electricity project, or a sustainable energy project - and tell the network about this player's great idea. The Evoke powers of knowledge, share and spark, used as voting criteria, also illustrate the emphasis given to these factors by the designers.

xiii. **Action upon own values and regular reports:** Every week *Urgent: Evoke* assigns diverse act-missions to the players, encouraging them to take action according to their values. The mission of episode two, for example, is 'to find long-term solutions to the hunger we have today - and to help prevent global food shortages in the future.' While, in episode three, players are asked to design a new way to power something they use daily, which would be cheaper and more sustainable than their current power source. Similarly, the act-mission of episode four, challenges players to make an alliance with a water visionary, to volunteer, to donate and to spread the word for more impact. In addition to this, players are asked to start a similar effort in their own area, even if it will not get very far in just one week. Furthermore, episode five provides some ideas for action regarding the economic crisis, along with the relevant resources: 'Try an

alternative currency - Participate in a bartering system or skills bank - Experiment with one of the new platforms described in The Future of Money - Or maybe you want to make a micro-loan or help someone kick start their new project. - If you're feeling really adventurous, join forces with some friends, classmates, family or neighbors to invent your own small exchange to test a new idea.'

The missions assigned to players in episode six, are related to the empowerment of women. In the investigation files of this episode, players learn about the most important ventures to improve women's rights globally, while the act-mission asks them to choose a project for donation. Similarly, the seventh episode, asks players to discover their city's resilience plans and spread the word; 'Share what you know locally: face-to-face, door-to-door, with sign or flyers, on a local website, or at a meetup. Reach out to at least 3 different people, to help start a chain of information flowing.' Episode eight, on the other hand, encourages players to create a physical object, 'documenting an indigenous secret in real'. By accomplishing the above missions, players earn points from the Evoke Powers, the most common of which are 'courage'[79] and 'resourcefulness'[80].

xvi. **Setting meaningful future goals:** As mentioned above, Alchemy suggests that 'the best way to help solve a problem is to do what you love.' This phrase, discussed in the investigation questions of episode four, encourages players to search for their 'signature strengths' and 'signature weaknesses', meaning the things that they like doing and are good at, and not, respectively.

In addition, a test is included to help players discover what they like to do and focus on for 'living a happier and more meaningful life'. All the missions of *Urgent: Evoke* set goals, either for learning purposes, or for taking direct action. Players are asked to donate, to learn about activist organizations, to have ideas to problem solve, to spread awareness, or to collaborate with other players and organize social innovation actions. For example, in episode two, the objective of the act-mission is to increase the food security of at least one person in their community. In order to make the goal more meaningful, the game emphasizes that food security is not about a single meal, but 'it's about long-term solutions'.

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[79] Courage is defined as: 'Take risks. Dare to tackle seemingly unsolvable problems. Take a stand for what you believe in. Face your fear.'

[80] Resourcefulness is defined as: 'Make something out of nothing. Rise to the occasion, no matter what.'

xvii. **Report on what has been learned:** Every week the players report what they have learned through the missions, as well as what they have discovered through their own research. This is done by blog-posting and presenting photos and videos as evidence. In episode eight, which is related to indigenous knowledge, players are required to pick out what they think is the most important lesson from the provided case study, and share it with the EVOKE network 'in a blog post, video or photo essay.' This occurs in every episode.

3.3.2.3. Game analysis with the Model VEGA-III

i. **Universalism versus relativism:** Values clarification, as illustrated in the theoretical VEGA Model, is accused of being extremely relativistic and not promoting any objective universal values, but rather letting everything be judged by the learners. The players in *Urgent: Evoke* are given plenty of freedom to envision their future and change the world as they wish, based on their ideas and social innovation projects. However, there are some values promoted by the game design (as shown in Table 8), which cannot all be considered universal. For example, the values of entrepreneurship and profit are imposed on the players and they offer the prism through which players are expected to perceive all other values of the game. These values, however, cannot be considered objective universal values, rather they are relativistic.

Another interesting point regarding relativism is to what type of players the game is addressing, and whether the game confronts the values of their social environment. The game team claims that African people were the actual target, and in this respect, the 'marketing campaign' of the game in the African universities succeeded (Hawkins, 2010, p. 25). As commented by some critics though, only elite students in Africa would have the time and reliable Internet access to participate in the game. Not to mention the general scope of the game, attracting talented leaders (most possibly from Western societies), in order to help poor and underprivileged regions, e.g. Africa, to make more money. A stimulating instance of the game is when players are asked to live on $2 per day for one week, as 3 billion people on this planet do (episode five). This activity is definitely a good crash-course for wealthy players of *Urgent: Evoke*. The outcome, however, is that it is impossible to succeed, besides all efforts to cook at home, not go out to cafés, or use the car (Brumm, 2010). Players realize that even if they did not have bills to pay, their diet would have to be unhealthy.

Topics of relativism are often discussed by players in the game forum. For example, a player accused peace-volunteers that moved to Africa, of hiring a young boy to carry a large heavy tank of water daily on his shoulders, for them. The post has the title: 'Child labour and the Evil of Western Racism as well as ancient African Customs and Traditions' (Koshy, 2010). Some players assert that this is a cultural norm in Africa and that volunteers should not attempt to change it. While others believe that this is exploitation of children. These moral conflicts create a fertile ground for critical thinking. However, as it is explicitly analyzed in one of the next paragraphs, there is no moral intervention from the game designers, nor any stimulation for further discussion.

ii. **Emphasis on the process, not on the content:** As concluded by the VEA-I analysis, the game focuses on instrumental values, while most of the terminal values are briefly mentioned, or hidden in the story. Already from the first episode, the players learn about the secrets of social innovation in order to apply them to all the game activities. Additionally, when players do the missions, the game controls only whether the missions are completed. The content of the proposed action, or what is generally shared and decided, is not examined, except by other players. This is evident, for instance, in the following public response of a player in the discussion forum of the game, obviously lacking empathy: 'Most places with homeless people have a trashy feel to it. But to have my shoes shined by a homeless person actually gave the place a more classy feel to it (...)' (Jansen, 2010).

Furthermore, as per the criticism received by the game, the majority of projects awarded with Evoke's top prizes 'seem poorly specified and unlikely to succeed' (Waddington, 2013, p. 49). This means that the plausibility of the proposed solutions is also not examined.

iii. **Values as preferences on superficial issues:** Any view on the ethical issues addressed in the game is accepted. This freedom sometimes leads to simplification and poorly thought opinions, based on personal preferences, or unjustified data. Here is an example of a player's post, providing an 'easy as one-two-three' solution for making sustainable cities (Mazarine, 2010): "Here's how we can have urban resiliency. 1. Everyone, get on your bike. 2. Everyone, have a backyard garden. 3. Everyone, get a cistern for your runoff, so you can have access to clean water. 4. Everyone, if you know someone who would have difficulty with one of these things, help them out once a week. And there you go. You need food? You got it. You need water? You got it. You need health? You got it. Problem solved."

There are many examples of simplified solutions, some of them also provided by the game[81].

iv. **Implicit values and hidden agendas:** The obscure nature of EVOKE's network reveals a hidden agenda of values, which is actually inconsistent with the values underpinning the preservation of the common good. Besides the gamestory, some statements and missions of the game are also, inevitably, biased. For example, the fifth mission suggests exploring the 25 'Top Creative Visions for the Future of Money', and asks players to use this resource in order to invent the future of money. In this context, it is clearly stated that micro-savings is a 'breakthrough solution' that 'will change the future of money for ever'.

v. **No criteria for conflict resolution – justification of any ethical system:** Players comment the views and ideas of other players, while searching for partners. This is not optional for the creation of moral conflicts. Moreover, even when conflicts are created, their resolution has no actual effect on the game. This feature hinders critical thinking, and possibly just strengthens player's already existing views, rather than questioning them.

As for the justification of opposite systems, players of *Urgent: Evoke* express many different views, sometimes even contradictory. For example, in the mission concerning homeless people, a player suggested the creation of electricity generation houses, where homeless people would use gym cycles and get paid depending on the energy produced. While another player responded based on different principles: 'How about this work the other way around? An enterprising Evoker could approach a homeless person, give them a lot of their clothes, some of their money, and help them in real and material ways? Rather than seeing the destitute as unused man power – who are often psychologically and physically unwell and won't be powering any homeless turbines soon / it could be that the inverse is true. The rich are the resource. The poor are the recipients' (Jansen, 2010).

However, no discussion is made to find common ground. All views are accepted as equal, and each one has its own followers. Despite the moral confusion that this feature implies,

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[81] For example, in the fourth mission, PlayPump is promoted as 'the most creative idea for solving the water crisis': 'While children have fun spinning on the PlayPump merry-go-round, clean water is pumped from underground into a 2,500-liter tank, standing seven meters above the ground. '

it generally hinders critical thinking, and could even lead to the division of people according to their moral views, as well as to the isolation of those with different values. The following criticism from a player confirms this potential problem: ‘ (...) perhaps the two goals of embracing diversity and conflict (free-speech) as well as helping people feel taken care of (not being forced to read too much negative stuff) can both be attained at the same time. Allowing people (...) to “black-list” agents who they simply aren't able to feel comfortable around, so that those agent’s posts and comments are hidden to them, would give people the power to take care of themselves, rather than having some authority figure decide for everyone what is valuable and not valuable’ (Turil’s comment on (Mcgonigal, 2010)).

In this case, although the contradictory systems would still be respected and expressed, critical reflection, as well as the search for a common ground, would be totally out of scope.

vi. **Risk of conveying ill values:** When players are not judged or criticized for their views, there is the risk of learning and practicing ill values. In my study on the case of *Urgent: Evoke*, I have not encountered any extreme case of players spreading ill values. What would happen though, if players were devoted to the values of opacity and profit, and ended up viewing the victims of destruction as clients to be deceived? Does the game design have any mechanisms to prevent such moral impact? Thus, the risk of educating ill values can be considered relevant.

vii. **Excessive power to players:** The game design provides players many opportunities to act in the real world, by investigating social problems, supporting activist movements, raising funds for particular causes, and generally organizing social innovation projects. This is an exceptional opportunity, not offered by every G4C. On the one hand, the fact that the game is connected to reality is positive. As the main game designer states in her review of the game (Mcgonigal, 2010), one of the positive things that went well in the first season was this: ‘We focused on real, intrinsic motivation and real activity.We didn’t adopt a “sugar with the medicine” approach. The rewards weren’t artificial; the rewards were to learn world-changing ideas and to be creative and to master social innovation skills. And we didn’t do simulation or virtual worlds. We linked real-world stories and efforts with online interaction and feedback.’

On the other hand, and especially since the game activities have effect in the real world, players should be even more cautious regarding the moral aspects of their projects. The morality of their projects is not to be examined in this analysis. However, this should be

acknowledged as a risk. It is also important to keep in mind that players might lack previous experience in solving social problems. Especially when these problems involve people from different cultures, and places that players have not lived in, their attempts need to be even more thought over from a moral perspective. This issue is analyzed further in the next paragraph.

viii. **Public affirmation and action not always possible, or recommended:** As just described, players' actions might be a result of immature decisions taken in a short time for the sole purpose of winning the game; a fact that pushes the players to even use unreliable data. The requirement of the game to act every week on a specific serious issue and to post evidence of these actions, might lead players towards fraud.

> 'Fellow Agents, some of you may have heard of a new campaign called One Million Shirts who want to collect 1,000,000 used and new t-shirts and send them to Africa to help people with no clothes. They are also collecting money for the shipping costs. This project by a (well intentioned?) Jason Sadler who is taking A LOT of criticism from development bloggers for obvious reasons: (1) there is no shortage of used clothing in Africa; and (2) second hand clothing has crushed the textile industry in many countries of Africa and hundreds of thousands of African workers have lost their jobs as a result of this' (Mbindyo, 2010).

Moreover, what is very relevant is that the game does *not demand any real confrontation with the established power structures,* which makes the game generally consensual with the main fundamentals of the established order. The other aspect to be considered is that when people are compelled to proceed to action without being sure, they then continue with the actions, making it more difficult to later reject the values embodied in the actions. For example, will a young player confronted with the complex issue of privatization of water supply systems be given the space to re-considerate their position later?

ix. **Peer pressure, coercion to the mean:** The question here is that players might not feel free to express views that could be perceived radical by others. The depth of my research does not provide evidence to answer this question. Players discuss their ideas in the game forum, but there is no evidence to support whether they feel restricted, or not. While most of the published opinions conform to the game values, some are critical, but without being extreme. Peer pressure is not evident, nor is coercion of players to the expected moral views. Nevertheless, this risk remains.

x. **Confusion, dishonesty, inconsistency:** The most remarkable confusion observed in the game design is admittedly between the claimed societal values of the game – for justice, equality and awareness, and the dark role of the EVOKE network – for opacity, exploitation, conspiracy, and inequality. This inconsistency also confuses players, as illustrated in the following comment of a player:

"Ok I was a little shocked about the 50% share in the profits, but if one really thinks about it, funding a project like EVOKE is expensive. The agents of EVOKE need to be paid, their flights to countries, the technology utilized in the project must be paid for and not to mention averting a massive food crisis in a country is a huge task. That 50% is not going to some multinational corporation. It's going into a fund that takes action without having to wait on politicians to make decisions. Maybe it's my naive way of thinking, but to me it's about taking action when it's needed."

The primary aim of EVOKE is saving people' lives, which are threatened by all the aforementioned problems. The solution provided though, is making them work for free under the network's leadership, while not even being aware of EVOKE's large profits. The game requires the same from the players; to volunteer as social innovators. This last remark has been criticized further by Mauro de Lorenzo[82], as follows: 'On a continent where formal-sector unemployment rates for young people exceed 50%, using comic book characters to promote formless volunteerism seems like cruel satire (Miller, 2010).' A similar criticism on this is expressed by a player of *Urgent: Evoke* (Cameron Keys, 2012): 'Was the World Bank providing global citizens an opportunity to anticipate global food shortages, infrastructure meltdowns, and other terrible outcomes? Many gamers were paying by the hour to participate from internet cafes in Africa, where frequent blackouts are the norm. Was this the future the World Bank was offering?'

This evident moral inconsistency of the game design definitely does not ease the clarification of players' values, which are required to resolve the moral problems of our society.

3.3.2.4. Summary of the Game Analysis

As the VEGA-I analysis showed, the design of *Urgent: Evoke* is closely correlated to the approach of values clarification. The claim is that if people become aware of their values, the world will change. The game openly promotes a set of instrumental values, related to

[82] The vice-president of the John Templeton Foundation.

the values of the valuing process (Kirschenbaum et al., 1977). Players are given great freedom to reflect upon their own values, publically share their opinions, choose their partners and the projects to vote for, search for solutions and organize actions consistent with the values they cherish. The role of the game designers thus, can be considered non-didactic and non-judgmental. The above **instrumental** values are conveyed in many ways; through the learning objectives of the game (21st Century Skills, social innovation), as guidelines to be followed by players to complete their missions and plan their actions, and as criteria to judge other players' ideas. These values, however, cannot all be considered universal, while some of them are very abstract. As for the **terminal** values of the game, the moral *aims* are very consistent with the objectives of values clarification. For the individual, these are: *success in the individual's life and career, self-confidence, meeting social needs with innovative business ideas, and getting involved in activities perceived as socially and personally meaningful*. While for the society, the vision is to tackle *global problems with social innovation projects*, *fighting against ignorance and apathy, creating happiness, and claiming human rights and justice*. The analysis revealed some **hidden** values in the story of *Urgent: Evoke.* The EVOKE network is a private illegal entrepreneurship (paying no taxes), secretly funded by official states and governors. The state allows EVOKE to use all the public land and human resources and earn 50% of the profit, while EVOKE gives all the credit of its results to the governors to save their image and cover up their inadequacies when problems are already lethal. Thus, the values, w*hich are imposed on* players as they become agents of the EVOKE network, are*: opacity, individualism, privatization of public resources, corruption and strife for profit at all costs*. These values are inconsistent with the universal values of preserving the common good. *What happens then, when a player is not in favor of these values?* Players can freely express their criticism regarding the game values. However, this has no effect on the gameplay. A more organized endeavor of criticism on the game's values has created a proxy website for sharing data, as an offshoot of *Urgent: Evoke*, and recruited many users, among them some top-scoring players. The argument was that the World Bank is responsible for the world problems that the game claims to solve. These players were banned by the game moderators and their voices have been silenced. Furthermore, a parody-ARG, called INVOKE, has been launched for the same reason; 'A crash course in saving capitalism'. All the above considered, the values of *Urgent: Evoke* - hidden or not - cannot be negotiated. Offering a different perspective has to be organized only outside the game. As Alchemy, EVOKE's

leader says (episode two): ‘We like our secrets. (...) Our strategy is not up for NEGOTIATION.’

As for the results of the VEGA-II analysis, the moral **practices** of values clarification model *are all encountered* in the design of *Urgent: Evoke*. The VEGA-III analysis revealed some interesting moral aspects, such as that although all views seem to be equally accepted in the game, the design is not value-free. Or, that although the game gives emphasis on players proposing ideas and deciding political actions, it does not pay attention to the content of values shared and enacted. Enforcing players to share a possibly premature opinion, or proceed to a hasty action, creates a series of further moral risks. Moreover, there is a lack of stimulation for players developing their moral reasoning and resolving conflicts towards a common decision. Players can judge other players’ ideas according to their own views, as they can also be grouped according to their moral views, without any need for moral interaction between groups. Other critical issues raised in the analysis are about players’ freedom to share extreme views, the lack of *respect for cultural differences*, or the inconsistency between the values of justice and awareness claimed by the game and the hidden values of EVOKE.

The above results will be further discussed and more elaborately commented in the next chapter of the thesis (paragraph 4).

4. VEGA Model as an instrument for game analysis

4.1. Discussing the empirical findings

In this chapter, the aim is to draw conclusions regarding the model created in this study. For doing this, I discuss the empirical results of the game analysis of the three case-studies (see paragraph 3) and I show that *the VEGA model brings into light significant moral aspects of the games that otherwise would be hidden*. By referring to each part of the model separately, I highlight these aspects and I demonstrate how the VEGA model, theoretically rooted in the traditional approaches for moral learning, *empirically facilitates the understanding of moral education designed in games*. The VEGA model can be considered thus, *an instrument for game analysis focusing on values education. While it helps as well to the design and criticism of games for change and moral awareness.*

a) VEGA-I: Principles for moral education in the games studied

Through this component, the empirical study has mapped three distinct VE approaches in the design of the three games examined. Below, I present the differences between the VE approaches, as identified in the design of the games.

The design of Power Explorer fulfills all the characteristics of **character education**. Domestic energy conservation is a *universal value* and the *focus is on changing players' behavior*. So, whereas the *societal objective* of *Power Explorer* is to reduce the global emissions of CO_2, this is attempted by correcting the attitudes of individuals. The *aim* is that players understand how to save energy at home, engage in this attitude, and commit to it after the game. Players are not given opportunities to discuss, choose, or oppose the values to be adopted. Thus, the *flow of values* is from designers to players, which means that the role of the game designers as moral educators is *indoctrinative*.

As for *The Movement*, the game analysis showed that it fits with the approach of **moral development.** *The Movement* aims to introduce players to the complex problem of political extremism, and to make them *reflect on diverse views* on this matter. The players get involved

in an intricate gamestory in which they experience different cases of violence first-hand. While searching for a solution, players reflect upon difficult moral questions and *decide on what is right and wrong*, which determines the evolution of the story. In this process, game designers have a *partly-indoctrinative* role. Apart from designing the moral content that motivates players to reflect and act, the game designers decide as well the consequences of players' actions and bring them into play. This moral conduct from the game designers is in the direction of justice, care and the respect of human rights, which is also the *end-state aim* of the game design regarding society.

The design of *Urgent: Evoke* on the other hand, as the game analysis showed, is closely linked to the approach of **values clarification**. The game challenges players to *reflect on their own values and act according to them,* as a way to *change the world*. The game openly promotes a set of *instrumental values*, which are consistent with the values promoted by the valuing process of values clarification (Kirschenbaum et al., 1977): prizing, choosing and acting, or the values of thinking, feeling, choosing, communicating, and acting. Players in *Urgent: Evoke* are given *great freedom* to reflect on what they cherish, to express freely about their own values, to publicly share their opinion, to choose their partners and the projects to vote for and to organize actions in the real world by participating in social movements. Players search for solutions considering the consequences of each alternative. The game designers do not intervene by enforcing any particular view. Thus, their role is considered *non-didactic* and *non-judgmental*. Regarding the **terminal** values of the game, the *end-state goals* for the individual are: *success in the individual's life and career, self-confidence, meeting social needs with innovative business ideas, and getting involved in activities perceived as socially and personally meaningful*. These goals are similar to the objectives of values clarification. As for the societal vision of the game, it is implied that *global problems can be tackled with social innovation projects*. Other values promoted are: *fighting against ignorance and apathy, creating happiness, and claiming human rights and justice*. These values are almost identical to the values of values clarification. Yet, moral values are also **hidden** in the story of *Urgent: Evoke.* These values, which are *imposed on the players as* they become agents of the EVOKE network, are*: opacity, individualism, privatization of public resources, corruption and strife for profit at all costs*. These values are inconsistent with the universal values of preserving the common good. However, as it has been shown in the analysis, players could only criticize these values outside of the game, by creating e.g. a proxy website for sharing data that recruited many users and a parody-ARG, called INVOKE. These

endeavors of criticism outside of the game had no effect on the gameplay, other than the banning of those players organizing them.

As it can be concluded, each VE approach reflects its own values and ethics, which in turn affect the moral-learning experience of the players in its own distinct way. The model VEGA-I is helpful for identifying these values and ethics, shedding light on critical moral aspects of the design which determine the moral learning approach of the game. More precisely, the model highlights the following factors as the most determinant in identifying the moral learning approach of games:

- *Values aimed by the game.*

These values are reflected in the stated game objectives, players' actions and goals, and inferences from the evident narrative. What is to be examined is whether: a) these values can be considered universal or relative; b) they are values to be reflected, questioned and discussed by players; and c) they are just instrumental values, guiding players to clarify their own values.

- *Moral agency – or who defines what is right and what wrong in the game?*

This is reflected by the freedom granted to players to co-shape the values of the game, as well as by the role of the game designer in the moral educational process (indoctrinative, partly-indoctrinative, or non-judgmental).

- *The moral vision of the game regarding individuals and society.*

That is, the desirable moral change of individuals, as well as the desirable societal impact, in order to tackle the problem stressed by the game. Hence, the game might aim at a) improving players' behaviors; b) making moral thinkers and care-takers of global justice and democracy; or c) players discovering freely their own values and acting accordingly.

All the above factors are identified through the thematic analysis of the VE approaches and integrated in the model for the purposes of this study (Chapter 7.2). They are based on the differential characteristics between the three VE approaches for moral learning. The empirical study showed that *these factors are relevant and significant to the values education performed also by games*. The VEGA model not only establishes this set of factors that help in identifying the moral approach of the game, but also provides the means for drawing conclusions related to all the above aspects. Thus, beyond *identification of the moral approach of the game design*, the VEGA Model can be useful for the *analysis of each of the above moral aspects*, *depending on the purposes of the game analysis*. Game analysts could focus, for instance, on the designers' moral intentions, their view on the problem handled by

the game, how moral agency is distributed between the players and the designer, or the desired societal impact of the game. Subsequently, the nature of values could open discussions around absolutism and relativism, while even the fact that a real situation is viewed as problematic could be resourceful for the purposes of a game analysis. Finally, the above factors allow the *analysis of games for VE at a comparative level,* setting a more fertile ground for the criticism of G4Cs, and for a more valid and rigorous study of the VE performed by games.

b) VEGA-II: Moral learning practices in the games studied

The empirical studies have led to some interesting results regarding the VEGA-II model. Most of the VE practices listed in the theoretical VEGA-II model have been empirically anchored in the games studied, as the means to provide moral learning experiences to players. Below, I summarize the empirical results of the VEGA-II analysis for each case-study.

Most of the VE practices of character education are empirically anchored in the design of Power Explorer. The behavior mission of consuming less energy than others, is the dominant element of the game design. This practice is enhanced with a feedback technology that helps players understand and achieve the desirable behavior, and moreover controls whether the mission is achieved. Rewards are also designed for the winners, either in the form of recognition, or in the form of special benefits for the next duels. An additional characteristic of Power Explorer is the engagement of players' families and friends, which does not constitute one of the designers' aspirations, nevertheless it happens naturally during the gameplay. Although the practice of direct moralizing was intended by the designers, it is not applied. As for the practice of exemplars (characters acting as role-models, as introduced in p.77 and included in the VEGA model in p.135), it is also not encountered in Power Explorer, notwithstanding their extended use in the previous game Power Agent, designed by the same research group.

As for the design of *The Movement*, the game analysis showed that it uses all the practices suggested by moral development advocates. The gameplay is characterized by moral dilemmas, decision-making, conflict resolution and discussions. To do all the above, the players continuously analyze what has happened in the story and reflect on its moral dimensions. Role-taking also seems to be a compelling strategy of the game. Players feel empathy for others, and get to acknowledge others' perspectives, through the gamestory set in

reality, as well as through their interaction with the non-player characters (NPCs), who are role-playing in live action (LARPing). Finally, as players discuss and make common decisions as a group, they actually apply the democratic principles of a moral community, as perceived by the moral development approach, and learn in a co-operative way.

As for the results of the case-study of Urgent: Evoke, the moral practices of values clarification are all empirically present in the design. Players are asked to reflect upon their own life experiences, discover what they personally value, wrestle with issues not acknowledged before, imagine the future and set meaningful goals. They search for new information, identify problems, share their viewpoints freely and report what they have learned. They are encouraged to choose between alternatives and think of the consequences of their present actions. Inspired by the discussions, they can act according to their own judgment, while also reporting their actions. All these activities make them feel proud and self-confident.

Thus, from the VEGA-II analysis, *three sets of moral learning practices* emerge. From the perspective of game analysis, this is a series of game design concepts to describe distinct players' affordances for moral learning. Furthermore, these moral learning practices can be useful for game designers to integrate them into the design of G4Cs.

As the empirical study has shown, game designers have variant possibilities and means for designing players' moral education, such as through the game's challenges and players' actions, the game narrative, the players' social relations, or the reward systems of the game. The design concepts resulting from the VEGA-II model can be integrated to the design in various ways, limited only by the creativity of the designer.

c) VEGA-III: Critical issues of moral education in the games studied

The results of the VEGA-III analysis are related to some critical moral concerns when designing for moral awareness. All the ethical remarks included in the theoretical model provided a deep insight into the ethics of the games studied and revealed unseen moral aspects of their design. In the following paragraphs I will refer to the results of the game analysis of each case study separately.

Regarding Power Explorer, the game analysis revealed some important shortcomings in the design. Power Explorer does not provide any moral reasoning for energy conservation; there is no evident connection to the real problems of energy, no reference to the real environmental consequences, and no motivation for the players to search for information, or think critically

by themselves. According to the model, this might explain why players do not understand the reasons to save energy, as shown in their interview responses. Moreover, the game does not foster any emotional attachment to the values promoted, nor any other feelings related to conserving energy, as e.g. empathy towards the victims of global warming, appreciation for nature, or the feeling of responsibility. In addition, the game exclusively emphasizes the individual effort for saving energy, failing to inform players about other causes of the energy problem, e.g. politics and industry. In this way, players might perceive that global environmental sustainability can only be achieved by reducing domestic energy use and, therefore, might feel content with their environmental consciousness just by playing the game. This might be the reason that the general environmental concerns of players decreased after the game (Gustafsson, Bång, & Svahn, 2009). Another factor that is explored in the VEGA-III analysis is whether players' social environment is associated with the 'bad' values restricted by the game design. This means that players have internalized these wrong habits, hence, it is unlikely that they will actually change them through the game, unless the design of the game really challenges these habits. This is already acknowledged in persuasive game design (Khaled, 2008; Khaled et al., 2009). l., 2009, p. 7). However, through its casual game design, *Power Explorer* does not aim at big changes in players' behavior. Finally, the analysis showed that the game design is inconsistent in its means and ends; competing to achieve sustainability while at the same time wasting energy to win the duels. This conflicting design, from a moral educational scope, does not help players to clarify the values and behaviors promoted, nor their moral role in the game, and in real life.

The VEGA-III analysis of *Power Explorer* generates as well some ideas that could perhaps be integrated into the design in order to prevent, or at least reduce, undesired moral impact. Some of these are summarized here. Hence, along with the immediate need for domestic energy conservation, the game could also stress the need for responsible action at a social and political level, e.g. towards global energy conservation, consuming fewer industrial products, and acting locally for environmental causes. For example, the game could present alternative options to save energy, such as renewable energy sources, or challenge players' imagination to discover new simple ways to save energy at home, such as better insulation. Innovative devices using renewable sources could be also promoted by the game. What should be considered though is that the use of these alternatives should be conscious, justified, and connected to the actual global problem, and not just as radical solutions to win the game. Furthermore, and especially as the game addresses sustainability, more democratic elements could be added, e.g. discussions and collective decision-making that could affect the

gameplay. Inspiration could also be derived from the result regarding the view of the game design on human nature. Power Explorer seems to restrain the human desire to waste energy, which is the most common perspective in persuasive design. An innovative design attempt then, would perhaps be a game supportive to the self, and trustful to players' ability in handling their impulses.

As for the VEGA-III analysis of *The Movement*, it brought up interesting matters to be examined and discussed. Regarding the freedom of players to decide upon right and wrong, it showed that no matter the trust and power given to players, the democratic principles of the game were not violated during the gameplay, nor did they cause other difficulties, such as the tyranny of the majority. The consistency of players' moral reasoning and actions has also been examined. The result is that this is for the most part assured in *The Movement*, as players during the game act directly, based on their reasoning. Significant factors to build this consistency are also the use of non-fictional real-life dilemmas, provided in live action and in the natural environment of the players, as well as the exhibition to multiple viewpoints and moral actions consistent to these viewpoints. What is more, the game emphasizes both values of justice and care, fostering empathy, rationality and autonomy altogether. Other issues examined are whether there is an inclination of the design towards western values, or whether there is moral hierarchy in the game, or any classification of the players into moral types.

In *Urgent: Evoke*, the VEGA-III analysis is particularly resourceful. Regarding *relativism*, the results show that although all players' views are equally accepted, the game design is not value-free since some values are clearly promoted by the game design. Moreover, some of these values are not considered universal, such as entrepreneurship, leadership, and exploitation of public land. The emphasis of the design is on the process of sharing ideas and deciding moral actions, and not on the content; the only aspect controlled by the game is whether the missions are completed, while the content of the proposed actions, or what is generally published, decided and enacted, is not examined. Consequently, players are at risk of making simplifications on ethically sensitive issues. What has also resulted is that the game enforces players to share a possibly *premature opinion*, or proceed to a hasty action. This creates a series of further moral risks. In some cases players' actions could end up more harmful than helpful, especially since the game activities have a direct impact on the real world. Or, players could commit to these views in the future, even if abundant reasoning against them manifests. This is a significant point to take into account when encouraging actions and evidence through a G4C. In addition to this, the fact that all views are equally

respected in the game without any judgment, or guidance, entails the risk of teaching ill values to players. The analysis also reveals that the game design *does not offer players any stimulation for moral reasoning and arguing in discussion*s. In the game forum, for example, players very often arrive at moral disagreements; yet, they are *not motivated to resolve these matters*, and make a common decision. This feature hinders players' critical thinking. What is more feared, is that it could lead to players' grouping according to their moral views, without any need for moral interaction between the groups. The design of *Urgent: Evoke* does *not provide any criteria to resolve moral conflicts*, either. Players can judge other players' ideas according to their own views, and search for collaboration with those with whom their existing views coincide. This is not a fertile ground for moral reflection, as players might not be challenged at all to question their views. Another critical question is whether players feel free to share views that could be perceived by others as radical. The need for acceptance by other players can put players under pressure, and might lead to *coercion to the mean*, blocking the expression of more extreme positions. This should be recognized as a general concern when designing games that demand public statements. Another issue examined in the design of *Urgent: Evoke* is the *respect of cultural differences*. Although the game team has performed a great and costly effort to attract African players from universities, *Urgent: Evoke* is criticized for actually addressing only privileged African students, who have internet access and leisure time to play. Some game activities do, however, force players to confront habits and values inherited from their social environment, such as the mission of living on $2 a day. Finally, *Urgent: Evoke* creates *confusion* regarding its moral values. The societal values claimed by the game are *inconsistent* with the values of the EVOKE network. How can justice and awareness be achieved when governors are secretly covered? How can equality be achieved when citizens must voluntarily work to survive, while public land and resources are privatized by opaque corporations? This inconsistency might confuse players.

The analysis carried out with the third component of the VEGA model brought into light diverse moral aspects of the design of each game, designating the actual relevance of these aspects to the moral education of the players. Conclusively, all the above evidence confirms that *the VEGA model gives prominence to crucial moral learning aspects in the design of G4Cs*. Some of these concerns have been confirmed, such as regarding the moral risks of players' indoctrination, the importance of moral reasoning, the controversy and hidden values of relativism. Most of these issues have not been studied in depth before, like the inherent difficulties of democracy, the insufficiency of moral reasoning for moral action or the need

for an appeal to emotion. Furthermore, as shown from the available empirical evidence, the VEGA-III model can be useful for discovering moral inconsistencies in the game and investigating possible moral risks of particular design choices. For example, in the case of Power Explorer, the inability of players to reason why saving energy is important, is a moral deficiency of the design that has been disclosed by the VEGA analysis and has been confirmed by interviews with players after playing the game.

Conclusively, the VEGA-III model offers a sound basis for the *criticism of the ethics of G4Cs.* Yet, the model is not confined to the identification of these concerns. In addition it provides *moral counseling* for coping with them.

4.2. Answering the Research Questions

The first research question is: *Could the traditional field of VE and the diverse approaches of character education, moral development and values clarification, provide a better understanding of the moral education in G4Cs?*

The answer is yes. Each of the traditional VE approaches, after being concretized in a model of analysis, has been empirically anchored in the G4Cs studied, concerning both its theoretical principles and its educational practices. Furthermore, the criticism received by each approach is proven to provide significant resources, shedding light on critical moral aspects of the games. As it is concluded, the field of VE can be overtly connected to the design of games teaching values and the utilization of these three well-developed VE approaches is meaningful not only for the *understanding of moral education in* G4Cs but also for the *analysis and the criticism of the ethics of G4Cs*. The VEGA model, created through a constructive process based on the thematic analysis of the VE approaches, establishes connections between the two fields, and therefore is also a representation of this affinity.

The second research question is: *Could the traditional field of VE provide helpful insights for the conscientious design of G4Cs and the consistent moral education of players?*

The answer is yes. The VEGA model is a tool providing moral guidance, both theoretical and practical, for the conscientious design of G4Cs and towards the consistent moral education of players. As described earlier, the VEGA model identifies significant factors that influence the moral education of players. These are values aimed by the game, the players' moral agency, and the game's moral vision regarding individuals and society. Furthermore, the model mapped three distinct game design approaches for moral education, each with distinct moral objectives and strategies. In all these ways, game designers can clarify better their moral

intentions and make more informed decisions regarding not only *what* values the game intends to teach, but *how* these values can be taught and *to what end.*

As for the consistent moral education of players, what we need to keep in mind is that each of the VE approaches identified by the VEGA model provides a different quality of moral education and an overall different moral experience for the players. When designers decide on following a particular approach, they need to acknowledge the moral risks that might emerge, how to deal with common pitfalls and how to fully exploit the benefits of each approach. Reflecting on the most relevant critical debates and avoiding moral inconsistencies in the design of G4Cs, is crucial for providing a more consistent moral education to players. The VEGA model includes this type of information, along with new ideas for tackling persistent design problems of a moral nature. Parts of the empirical analysis already published[83].

However, the VEGA model - in the form that has been developed in this study - is focused more on the analysis of existing games than the design of new games. It is an instrument for game analysis rather than a handbook for game designers. This is a limitation that is considered by this study. In the next chapter, I propose the use of the VEGA model as a source for developing a clearly design-oriented tool; game design patterns for teaching values.

[83] The analysis of Power Explorer has been published as a chapter in the book "Cases on the Societal Effects of Persuasive Games" (Skamnioti, 2014b). and the analysis of The Movement has been partly presented in the international conference "Digital Storytelling in times of crisis", in Athens (Skamnioti, 2014a).

5. VEGA Model as a source for developing Game Design Patterns

5.1. Advancing the Conclusions

The VEGA Model is the most significant outcome of this research. It is a model constructed on the basis of three different VE theories, which has also become empirically anchored to games through the case studies. The VEGA model could be further used for the analysis and the criticism of games teaching values, aiming at the consistent moral education of players. However, it is worth noting that the model, although it falls within the scope of the conscientious design of G4C, does not address directly to designers. This is because the model has been initially created with the purpose of game analysis. Hence, although the classification and the content of the model are meaningful for the design of G4Cs, the model itself is too complex to facilitate the actual process of game design. For instance, a designer that seeks moral guidance could ask the following question: which elements should be combined in the design of a game in order to provide a consistent moral education? The model, in its existing form, cannot provide a concise answer that can easily be accessed by designers.

Therefore, in this chapter I suggest further elaboration of the results. I propose the creation of a preliminary set of game design patterns for moral education. The idea of design patterns appears to be the most pertinent and purposeful way for documenting the results of this research in a more design-oriented form. Initiating a library of design patterns for G4Cs would aim at the description of the most common game design solutions for educating players morally, while also touching upon the required conditions, or the possible biases and drawbacks when using these solutions. Furthermore, creating a pattern language for transferring all the relevant knowledge on the design of game-based moral education would be helpful for any stakeholders from diverse fields interested in G4Cs.

5.2. Introduction to the concept of Design Patterns

5.2.1. The concept of Design Patterns

> *"Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of a solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice." (Alexander, Ishikawa, & Silverstein, 1977)*

Patterns are design rules that provide 'positive' solutions to some common design problems and consist of concrete prototypes rather than abstract principles. This means that the designer knows how to implement them, and moreover, that the designer can clearly confirm the presence or absence of a pattern in a specific structure. On the other hand, patterns are also flexible. For satisfying a pattern and for implementing its suggested solution, there can be multiple ways, depending on the creativity of the designer.

In summary, patterns express a relationship between a particular ***problem*** (how to create the desired experiences) and a ***solution*** (common suggested design practice), within a (some) ***context*** (any psychological, social or structural constraints). These three components are the basic elements of a pattern. Thus, the way these elements are formatted is important. The solution, which is considered 'the heart of the pattern', is usually stated in the form of an instruction, describing only what is essentially 'required to solve the stated problem, in the stated context' (Alexander et al., 1977, p. 11). The solution should be given in a very abstract way leaving the designer free to look upon it and to adjust to it according to their own preferences and conditions. Moreover, as the context might change, the usual design solutions might also change; new patterns can be discovered for solving new problems, while better solutions might change the already existing patterns.

What is additionally important is that patterns, as entities, are structured in distinct levels, constructing altogether an actual ***pattern language***. The pattern language resembles the structure of a network; each pattern is connected to certain "*larger-scale" patterns,* which come above it in the language and in which it is embedded, and to certain "*smaller-scale" patterns*, which come below it in the language and are embedded in it (Alexander et al., 1977, p. 13). Moreover, it is surrounded by other patterns (of the same

scale) that have their own relations to the larger or the smaller patterns[84]. The *connection of each pattern to other patterns* is essential for the designer, as it allows them to conceive and use the whole collection of patterns as an entity, i.e. as a *language,* creating variant combinations.

At last, a fundamental concern when talking about design patterns is their aim. The ultimate purpose of design in general, and therefore also of design patterns, is good user experience. Admittedly though, this *ultimate 'good' experience* is not easy to describe explicitly. This problem is also encountered in this study; the "conscientious design" of G4Cs or the "consistent moral education" of players cannot be easily defined as objectives. Equally difficult is the definition of "moral awareness", or what constitutes a complete "moral person" and a fully "morally aware society". How can one explain then, the ultimate aim of design? Alexander addressed this complication by inventing the term '*the quality without a name*' (Alexander, 1979, p. 19). This term characterizes a positive feeling that cannot be easily described, but it certainly exists, as it can be experienced and be perceived as positive by all. This quality, initially referring to the design of spaces such as buildings and towns, is what makes the visitors of these spaces feel good and free, what makes these spaces alive, comfortable and eternal, without inner contradictions.

> 'There is a central quality which is the root criterion of life and spirit in a man, a town, a building, or a wilderness. This quality is objective and precise, but it cannot be named. (..) We have been taught that there is no objective difference between good buildings and bad, good towns and bad. The fact is that the difference between a good building and a bad building, between a good town and a bad town, is an objective matter. It is the difference between health and sickness, wholeness and dividedness, self-maintenance and self-destruction. In a world which is healthy, whole, alive, and self-maintaining, people themselves can be alive and self-creating. In a world which is unwhole, and self-destroying, people cannot be alive: they will inevitably themselves be self-destroying, and miserable.

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[84] For instance, the patterns of Alexander and his colleagues are subdivided into three sets; the large-scale patterns for designing towns, the medium-scale patterns for designing the buildings inside the towns and the smaller-scale patterns for the indoor spaces. In different contexts, as for example in the game design patterns, these relations are different (see Björk & Holopainen, 2005).

> But it is easy to understand why people believe so firmly that there is no single, solid basis for the difference between good building and bad. It happens because the single central quality which makes the difference cannot be named' (Alexander, 1979, p. 25).

This nameless quality consists of elements which must be combined to articulate the whole. This is how patterns function: they attempt to describe the elements that articulate this quality in order to be understood by designers and be reproduced by them in different contexts. Regarding my research, the "quality without a name" could be a useful concept for the comprehension and description of the ultimate aim i.e. the "consistent moral education" of players. What needs to be provided then, is the particular elements that characterize this term as quality. This is what patterns are assigned to do.

5.2.2. Patterns in Game Design

Historically, the method of design patterns has been embraced firstly by the community of software engineering[85] and then by other fields such as object-oriented programming[86], human-computer interactions[87], the field of web programming[88] and ultimately, the field of game design. Design patterns from all these fields share similar traits and goals; either to document best practices, or just to identify and describe common solutions for common design problems, always in a semi-formal way. Here I review the most significant works of pattern creation for game design, with a focus on educational and serious game design. My aim is to provide a deeper understanding of the pattern method and its applications, as well as to establish this study as one link in a chain of developing research in the field. Foremost, the work I present here has been influential in my own pattern creation process.

Focusing on *game design*, the most noteworthy work is the *Patterns in Game Design* (Björk and Holopainen, 2005), identifying a repository of over 200 game design patterns grouped in eleven categories. These patterns refer to gameplay and aim to catalog

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[85] The beginning of software-design patterns has been the book "Design Patterns - Elements of Reusable Object-Oriented Software" (1995) by Gamma, Helm, Johnson and Vlissides.

[86] Budinsky, Finnie, Vlissides, & Yu., 1996; Eden, Hirshfeld, & Yehudai., 1999; Florijn, Meijers, & Winsen, 1997

[87] Borchers, 2001; Schummer & Lukosch, 2007; Tidwell, 1999, 2005; Van Welie & Van der Veer, 2003

[88] Some examples are: Vora, 2009; Wallace, Raggett, & Aufgang, 2003

commonly recurring parts of the design of games. It is noteworthy that these patterns are mostly descriptive rather than prescriptive, as they are neither intended to give guidelines about the best design techniques nor to include information related to the context. This pattern collection has initiated a discussion around game design by building and providing a vocabulary. Subsequently, many academics have been inspired to do further research on game design by applying the above patterns in different contexts and either improving them[89], or identifying new ones[90] (Hullett & Whitehead, 2010; Milam & El-nasr, 2010; Smith et al., 2011).

Recently, behavioral psychology and behavioral economics have also been utilized in relation to game design patterns, for identifying how popular games engage and retain players (Lewis, Wardrip-Fruin, & Whitehead, 2012), or for designing, "…games to bring out the kind of player we want" (Hopson, 2001). Alternative attempts aim at the optimization of the emotional or social experience of players[91]. All these sets of patterns have particular aims and describe "good" design solutions for approaching them, considering also the different contexts. Similar to the above efforts created for providing

[89] A continuation of this work investigates the gameplay mechanics of games taking into account their special characteristics, as e.g. mobile games (Davidsson, Peitz, & Björk, 2005), public games (Staffan Björk, 2012), pervasive games (Staffan Björk & Peitz, 2007), or rehabilitation games (Goude, Björk, & Rydmark, 2007). Moreover, the above patterns have been the basis for studying other areas of gameplay, including the characters, their social interactions (P. Lankoski, 2010; Petri Lankoski & Björk, 2007), and their game dialogue systems (Brusk & Björk, 2009). Or, for exploring new design possibilities e.g. on achieving camaraderie (Bergström, 2010) or pottering (Lundgren & Björk, 2012), implementing anonymous actions in cooperative board games (Linderoth, 2011), identifying game design pitfalls (Hedenskog, 2012), encouraging motivation (Holopainen & Björk, 2005), and supporting people be good players (Staffan Björk, 2010).

[90] Other notable contributions in game design patterns are the work of Kreimeier (Kreimeier, 2002), and several stand-alone collections related either to the structure of interaction between player, game system and other players (Fullerton, 2014), or to the cognitive processes of the players during their interaction with the game (C. A. Lindley & Sennersten, 2006; C. a. Lindley & Sennersten, 2008). However, they are not related as much to my research.

[91] These attempts aim at providing e.g. flow experience (Lemay & Ph, 2007), cooperative game design (Beznosyk, Quax, Coninx, & Lamotte, 2012) in-game social activities (Ducheneaut & Moore, 2004), or body movement (Isbister & Dimauro, 2009).

pleasant play experiences, it is interesting to mention as well the collection of "dark design patterns"[92] (Zagal, Björk, & Lewis, 2013).

At the same time, there is in-depth research on *design patterns for learning purposes*[93]. These descriptions are proposed as methodological guides for analyzing different aspects of game design related to the learning dimension. As Kelle and colleagues showed (Kelle et al., 2011; Kelle, Klemke, & Specht, 2013), it may be possible to design learning functions – courses or curricula – in a game-based way and vice versa. Some researchers tried to identify the connection of the game design patterns compiled by Björk and Holopainen, with learning and pedagogical patterns. The outcome of this attempt is a collection of the so-called Game-Based Learning Design Patterns (Ecker, Müller, & Zylka, 2011), facilitating designers to develop "better" educational games. Another overlapping project, considered "the pedagogical counterpart" of game design patterns is Game Learning Patterns (GLP) (Kelle, Börner, Kalz, & Specht, n.d.; Kelle, Klemke, Gruber, & Specht, n.d.; Kelle, Klemke, & Specht, 2011). The GLP denote which learning functions are supported by which game design patterns, and the underlying pedagogical perspectives. The work of Kiili[94] (2005, 2010) focuses on the integration of game design aspects with relevant learning principles, in order to provide both engaging and educational experiences. In addition, other works have moved towards this educational direction, such as the Learning Mechanics-Game Mechanics (LM-GM) model (Arnab et al., 2014) supporting the analysis and the design of serious games[95]. Maciuszek and colleagues (D. Maciuszek, Ladhoff, & Martens, 2012; Dennis Maciuszek, Ladhoff, & Martens, 2011) have also explored how design patterns can be applied to video games for educational purposes. The result is a library of patterns for designing educational content, with some interesting templates of character and environment design[96].

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[92] The dark design patterns are patterns "used intentionally by a game creator to cause negative experiences for players that are against their best interests and happen without their consent" (p.1).

[93] Educational game design patterns are defined as "semiformal interdependent descriptions of commonly reoccurring parts of the design of an educational game that concern and optimize gameplay from an educational perspective focusing on the integration of engaging and learning objectives" (Kiili, 2010, p.401).

[94] Killi built his library from his experience designing only one single game (AnimalClass), and although the library is rather poor, it constitutes a true pattern language.

[95] EU-Funded Games and Learning Alliance (GALA)

[96] These patterns are easy to communicate and replicate, especially in RPGs.

Other considerable approaches to game design patterns aimed at integrating both entertainment and educational features in game design, and also at bringing together stakeholders from different background for designing serious games (Huynh-kim-bang, Wisdom, & Labat, n.d.; Marne, Wisdom, Huynh-kim-bang, Paris, & Labat, 2012; Bellotti et al., 2011; Marne et al., 2012). While another recent attempt aims to facilitate the development of educational video games based on the playability attributes of games[97]. The outcome is a set of guidelines and design patterns that help by providing an acceptable level of playability and, in this way, a better player experience and learning achievement. Design patterns have also been developed by the 'Games for Learning Institute' (G4LI) (Plass & Homer, 2009), including in their format the corresponding educational theories, as well as evidence from the gameplay experiences of players. Based on Games for Learning´s game design rubric, another research team (Evans, Walker, Abel, Mcglynn, & Norton, 2014) created a list of game design patterns[98] describing and assessing variant aspects of designing a learning game app (Kinzer, Hoffman, Turkay, Nagle, & Gun- bas, 2010). Substantial research has been done particularly for pervasive learning games and their educational potential[99] (Schmitz, Klemke, & Specht, 2012a, 2012b, 2012c; Schmitz, Klemke, Specht, & Ag, 2012). While another significant work (McNaughton et al., 2004) addresses the widely reported problems of educational games (monotonous gameplay and poor production quality), and

[97] A. Ibrahim, Gutiérrez, González Sánchez, & Padilla Zea, 2012; A. Ibrahim, Gutiérrez, Sánchez, & Padilla Zea, 2011, 2012; Amer Ibrahim, Gutiérrez Vela, González Sánchez, Padilla Zea, & Paderewski Rodríguez, 2012; Amer Ibrahim, Vela Gutiérrez, Padilla Zea, & González Sánchez, 2013). This work is using the playability model created by González Sánchez (J.L. González Sánchez, Padilla Zea, & Gutiérrez, 2009.

[98] By analyzing the CandyFactory app design patterns

[99] This work employs the mobile game design patterns established by Davidsson et al. (2005). It focuses on two aspects (Bloom (1956)): the affective learning outcomes (attitudes and motivation) and the cognitive learning outcomes (development of intellectual skills and knowledge gain), and gives evidence that pervasive and augmented reality games have a positive impact on both domains. Thus, the proposed set of patterns describes how to contribute regarding these two educational objectives, while also considering the contextual dimension for the patterns which plays a further determinant role.

suggests the adaptation of a commercial RPG in order to produce immersive educational games and an enriching game-playing experience (Carbonaro et al., 2006)[100].

There are many other examples of academic research work creating, improving or evaluating game design patterns for the learning context. Some studies focus on sustaining affective learning (Dormann & Biddle, 2008; Dormann, Whitson, & Neuvians, 2013), others on the narrative dimension for motivating learning content (Dennis Maciuszek & Martens, n.d.), and others on designing collaborative learning games, showing how social interactions can enrich serious games (Calvo, 2009; Hernández-leo, Asensio-pérez, & Dimitriadis, 2005; Oksanen & Hämäläinen, 2014; Reichart & Bruegge, 2014). Other pattern libraries have also been made for designing simulations (Aldrich, 2009) and mathematical learning games (Mor, Pratt, & Björk, 2007; Mor, Winters, Cerulli, & Björk, 2006), while gamification patterns have been extracted from known gamified systems (Darius & Robertas, 2014). Recently, an online library of "Educational Game Design Patterns" has been compiled, with the aim to collect and present the variant up-to-date libraries of game design patterns related to pedagogy (Games Enhanced Learning, 2010).

All the above pattern libraries indicate that game design patterns can work for variant learning purposes and contexts. Yet, the aspect of moral learning has not been addressed so far; how can game design help players have a positive moral and learning experience? How could game design develop moral thinking, action and emotion, and how would it achieve to make players aware of real-world problems, search for ethical solutions and adopt moral behaviors?

5.3. Design Patterns in my study

In this section, I attempt to illustrate how the concept of game design patterns applies to the results of this research. Summarizing the fundamental concepts, design patterns represent a form of presenting proven reusable *solutions* to recurrent design *problems* by considering the *context* and other pertinent concerns. These solutions are not just convenient for designers, but are socially grounded, emphasizing the well-being and *'positive' experience* of the end-users of the product. Design patterns offer a holistic

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[100] This research was supported by grants from the (Canadian) Institute for Robotics and Intelligent Systems (IRIS), the Natural Sciences and Engineering Research Council of Canada (NSERC), Alberta's Informatics Circle of Research Excellence (iCORE), and BioWare Corp.

insight about what is considered a *'good' experience* and which are the *best design techniques* to achieve it. Hence, the first question that needs to be answered for understanding the appropriateness of this method for this research project, is: *In the case of designing G4Cs, what are the recurring problems and what are the solutions, the context, and the intended good experience of the design?*

The **problem** to be solved in the case of G4Cs, is the very same challenge of these games; *to educate players in values*. This study has identified - firstly theoretically and then empirically in games - some diverse ways to educate players in values. More particularly, I refer a) to the three diverse moral learning approaches mapped in the VEGA-I model, and b) to their corresponding moral learning practices mapped in the VEGA-II model. All these can rightfully be considered as proven and reusable **solutions** to the problem of educating players in values.

What is also noteworthy is that these design solutions for teaching values are not isolated entities. They are connected to a set of significant concerns, fairly (or possibly) associated with the moral and learning experiences of players. These concerns constitute the actual **context** to be considered when applying a solution. In the case of this research project, these concerns are related to well-known philosophical debates, diverse pedagogical trends and political views, common confusions, or other conditions, as e.g. combined design features in the game.

Most importantly though, each VE practice is linked to certain moral and learning goals; these goals correspond to "**positive**" **players' experiences** to be provoked by the game design. For instance, putting players in the shoes of a refugee could make players understand better the main challenges refugees face (from smugglers playing with their lives and hopes, to the prejudices and stereotypes of the inhabitants of their lands of arrival) and increase their empathy. This is considered a positive moral-learning experience when the overall aim of the game is players' awareness regarding the migration.

This research aims at players' *consistent moral education*. This is also supposed to be the aim of conscientious designers of G4C. As already explained though, this aim is difficult to describe explicitly and definitely constitutes a "quality without a name". Hence, the only way for defining it, is the description of the characteristics that articulate this quality, the design elements that when combined in a game, result in the consistent moral education of players. In the case of my study, these design elements are already identified for building the VEGA Model, as also empirically anchored in the case-studies.

It is evident from the above that the original idea of this research as well as the form of its results correspond profoundly to the role and the structure of design patterns - to this extent that it can actually be claimed that *the nature of the results implies the initiation of a pattern creation process.*

What needs to be noted though, is that pattern creation is an extensive and demanding process that could not be completed in the time span of this study. The reason is that the initial aim of the research was the examination of the potential affinity between G4Cs' design and the VE field, which is *other* than the creation of a pattern language. Moreover, as the amount of empirical cases of this research is limited, the patterns identified can only be viewed as *preliminary*, acting themselves more as a medium of discussion, than as design blueprints. Thus, my actual aim here is to illustrate that *the creation of a pattern collection is plausible* and to provide *a competent sample of work,* in a form that could be easily applied by game designers. Game researchers might be interested to contribute further to this endeavor, and to continue the pattern collection, by analyzing more games and observing their moral impact, by examining alternative educational theories, or by experimenting with some novel moral practices suggested by this pattern collection. Game designers might also be encouraged to reflect upon their moral intentions, share their experiences and their interpretations, or perhaps provide innovative design ideas for a *better* moral education of players.

In the following paragraphs I proceed to the creation of a pattern language, as well as to the creation of a preliminary set of patterns for designing games for moral education. My role in this process of pattern creation is that of a *design researcher* (Olsson et al., 2014). This means that my primary concern is "in the borderline between generalizable patterns and relationships between such patterns", while giving emphasis on "the impact on gameplay – as perceived by players" – and not on the side of product development(p. 10).

5.4. Creation of Design Patterns for moral education

5.4.1. Creation of the Pattern Language

The main challenge of this project is to construct a *pattern language,* based on which the creation of a pattern collection will be initiated. This pattern language will be grounded on the diverse approaches for moral education as well as on their corresponding practices. Hence, there will be two *levels of patterns* describing a) the diverse design

philosophies for VE, and b) the diverse design possibilities of players' moral practices within the game, supporting each of the above philosophies.

The aforementioned distinction between philosophical approaches and VE practices has conducted both the theoretical and the empirical parts of this research, and more precisely, corresponds to the two types of knowledge described by the VEGA-I and the VEGA-II sub-models respectively. The clarification of the particular role of each level as well as of the relation between patterns of different levels constitutes the first step towards the creation of the pattern language. In the following paragraphs, I describe the role of each pattern-level, based on the functions of the VEGA-I and VEGA-II sub-models.

5.4.1.1. Pattern Levels

The component VEGA-I is assigned to identify the philosophical approach for VE that characterizes the design of the whole game. On these grounds, the first level of the ***Large-scale Design Patterns*** can be created and can be described as following:

> *The large-scale design patterns represent distinct philosophical approaches for moral education. They characterize the design of the whole game and they are related to the overall moral impact and play experience. These patterns describe information associated to the nature of values promoted by the game, the moral agency of players, and finally the intended moral change for the individual and for society.*

Regarding the component VEGA-II, it refers exclusively to the affordances provided to players for moral education and practice during play. Each VE approach suggests different moral practices for reaching its aims. This is the basis on which the second level of patterns can be built, the level of the ***Small-scale Design Patterns****:*

> *The small-scale patterns describe the affordances provided to players for moral learning and moral practice. They encourage the development of certain moral skills, habits, or emotions, and thus, offer distinct moral and learning experiences during play. They describe information associated with the aesthetics*[101] *of the game and they can be perceived as grain components to be integrated in the design of G4Cs.*

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[101] Considering the MDA Framework (Hunicke, LeBlanc, & Zubek, 2004).

5.4.1.2. Relation between Pattern Levels

The relation between these two levels is important. Based on the VE literature as well as the empirical evidence of this study, each VE approach (large-scale pattern) *recommends* a set of practices (small-scale patterns) for achieving its particular moral aims. Moreover, each VE practice (small-scale pattern) *supports* a particular philosophical view on moral education (large-scale pattern). This structure can be identified as a tree-structure, with the roots being the large-scale patterns, which represent the different VE philosophies characterizing the design of the whole game and the moral-learning experience. While the branches are the small-scale patterns, that is the design components related to the affordances of players for moral practice and learning experience. This does not mean however, that when a game follows a particular large-scale pattern, all of the small-scale patterns suggested by this approach are included in the design. As for the possibility that a small-scale pattern linked to a particular large-scale pattern can be encountered in games following another large-scale pattern, is not excluded.

5.4.1.3. Pattern Format

Another significant step in the process of creating the patterns, is the definition of the *pattern format* i.e. the set of elements to be used for the description of each pattern. As the examination of the previously mentioned literature has shown, in most cases of pattern creation, new versions of pattern formats are created, adjusted to the design needs and priorities of the designers or other stakeholders. On these grounds and after taking into serious consideration the needs and purposes of the current study, I select here the features constituting the format of the patterns to be created. For ease of understanding of each of these features, I refer to relevant pattern literature as well as to concepts and examples resulting from this study.

Name: As noted in the literature, the name of the pattern should be short, comprehensive, and descriptive, indicating whether the pattern is present and significant in the design. As stated by McGee (2007), it should describe "a procedural relationship – that is, a mapping of user-interaction to game behavior" (p. 4).

Aim: What represents the actual aim of the design, is the problem to which the pattern appears to be a solution. In our case, this is associated with players' moral education; the aim should clarify the game designer's intentions regarding the players' moral-learning experience during play, as well as regarding the moral change of the individual or the society. In this study, this element refers to the VEGA-I model (p. 134) and the questions

one ("What is the aim of the game in terms of values?") and three ("What are the end-state goals regarding individuals and the whole of society?"), while the empirical analysis indicates how this knowledge is interpreted in terms of game design. For example, the aim of character education is the behavioral change of individuals, and the expectation is that if the individuals adopt the right behavior, the global problem can be tackled. Indeed, in *Power Explorer,* the objective is teaching players to adopt the habit of putting the electrical devices off when not in use. While the bigger idea is that with these small individual efforts to consume less domestic energy, the environment can be saved.

Solution: This is a short description of the essential design characteristics that, when well-combined, can offer the expected outcome. It is the property encountered in all the design cases that succeed in solving the problem, in all possible ways of solving it; the "invariant property" as termed by Alexander and colleagues (1977, p. 14). The description though, should be largely abstract to permit space for creative design. In the case of our patterns, the solution is related to players' moral agency and attempts to map the interaction between the players and the game; the requirements and the freedoms granted to the players for experiencing and influencing the game values, and the response of the design in this moral-educational process. This knowledge derives from the VEGA-I model (p. 134) and the second question ("Who defines what is right and wrong in the game?"), as well as from the empirical anchoring of the model.

In *The Movement* for example, players are asked to reflect upon diverse complex issues by experiencing first-hand difficult situations. They need to resolve moral conflicts and to take common decisions with a significant moral impact. To do this they discuss democratically and take into account all opposing views. Although this process of critical thinking seems to be initiated and driven by the players, it is mainly directed by the game design. The designer's guidance, as shown, is partly indoctrinative towards the values of justice, care and democracy. The moral stages defined by Kohlberg are also part of the solution, as useful guidelines for designing the moral conflicts to which players are exposed.

Example: This element aims at providing a practical understanding of each pattern. The example is a game, or a game component, whose design follows the particular pattern. In this project, the games used in the empirical study can be considered as examples. As the evidence shows, the design of these games represents how each VE approach can be applied in a game context; *Power Explorer* for character education, *The Movement* for moral development and *Urgent: Evoke* for values clarification.

Theoretical foundation: This element aims at the acknowledgement of the theoretical ground, on which the conception and the creation of the pattern is based. In this project, the game design patterns are grounded on diverse VE theories, and on their corresponding educational practices. Reference to the literature from which these solutions derive opens the door for a deeper understanding of the pattern and for potential further research for the development of the pattern. Foremost, this information facilitates the justification of the knowledge provided.

Relation to other patterns: This field describes the relation of each pattern to the other patterns. As described above, the large-scale patterns describe the whole philosophical view of the game on moral education, while the small-scale patterns refer to some game components offering moral-learning experiences to players. Each of the large-scale patterns *recommends* the parallel use of particular small-scale patterns, while each small-scale pattern *supports* a particular large-scale pattern. This can be simulated as a tree-based structure, with the large-scale patterns as roots and the small-scale patterns as branches linked to the roots in sets.

Ethical Lenses: This is a field of paramount importance, containing crucial moral aspects of each pattern and contextualized guidelines for designers. The ethical lenses describe the most critical issues and the most common moral risks that might arise when using a pattern, while they also provide guidance for handling these matters towards a consistent moral education of players. This field draws knowledge from the criticism of each VE approach, as summarized in the VEGA-III model and empirically discussed in the case-studies. It is similar to the "ethical forces" devised by McGee (2007)[102], as it discusses issues that people "really care about" and, most importantly, defines crucial conflicting forces that need to be balanced, while explaining what happens to be the problem "if we 'go too far' with the opposite of the other force" (Mcgee, 2007, p. 5). This element needs to be perceived as an essential supplement to the solution, providing significant caveats to be considered by the designers when applying the solution. Finally, it justifies that this collection is not just a documentation of design techniques used in G4Cs, but a contribution towards a more conscientious design of G4Cs and a more consistent education of players.

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[102] The element of ethical forces is used in the format of patterns for game design innovation.

Here is an example of how helpful the ethical lenses could be for conscientious designers. In an offhand reading of *Urgent: Evoke,* the game design appears to be non-judgmental, letting players decide on their actions and freely share their viewpoints. Through the ethical lenses though, hidden values of the design come to the surface; the lenses "*implicit values and hidden agendas*" and "*reverse indoctrination*" reveal biases of the game and the limits of players' freedom. While the lenses "*public affirmation and action*" and "*values as personal preferences on superficial issues*" counsel the designer regarding common moral risks of this design approach, as e.g. the risk of enforcing poorly thought-out public statements and premature actions. This risk is even greater in *Urgent: Evoke,* as players' actions take place in the real world. Hence, it is not a coincidence that it is already documented by critics[103] of the game as a moral deficiency of its design.

5.4.2. Creation of the Pattern Library

Based on the preceding pattern language and format, I continue here with the creation of the patterns. The large-scale patterns describing the diverse philosophical approaches for designing games for VE are three i.e. *Just do this, Do you care for justice,* and *Values come from you.* These three patterns correspond respectively to the three VE approaches – character education, moral development, and values clarification. Whereas, the small-scale patterns mapping the various moral-learning affordances that can be provided to players by the game, are estimated to be 33, equal to the total amount of VE practices cataloged in the VEGA-II model. However, within the limits of this project only three were further developed, one for each VE approach.

The largest part of the knowledge described in the following patterns is documented in the empirical study. However, I included parts of the theoretical dimension of the model that have not been empirically anchored in this study, as they could be empirically anchored in further research projects, or they might be proven useful at any rate. These empirically non-anchored elements are marked with an asterisk (*), following the example of Alexander and his colleagues (1977, p. xiv).

The pattern library issued by this study contains 36 patterns in total, divided into two levels; a) three large-scale patterns which address the philosophical VE approach for

[103] Some critics document that players fall into simplifications and not-plausible proposals.

designing a complete game, and b) 33 small-scale patterns which constitute common and recommended moral affordances to be integrated in the design of a game. Each small-scale pattern helps for implementing one of the large-scale patterns. Game designers can use the language as a sequence and generate a remarkable number of possible different combinations for designing games for moral education.

More precisely, among the patterns of the library, the designers can choose the patterns they find relevant to their project and most suited to their intentions. By moving from the large-scale patterns to the smaller-scale ones they can combine patterns that support each other. Moreover, it needs to be reminded that patterns can also be subjected to modifications, depending on the context and creativity of the designer.

Below, I present the patterns deriving from this study, starting from the large-scale ones.

5.4.2.1. Large-scale Patterns for the Design of Games for VE

NAME: Just do the right thing
AIM: Teaching commonly accepted values with the focus on changing players' daily behaviors. Small individual efforts are adequate for solving even global problems. Emphasis is also given to players' commitment to this behavior after the game ends.
SOLUTION: Players are assigned to acknowledge the 'correct' behavior and practice it during gameplay. Right and wrong are clearly defined and presupposed by the design.
EXAMPLE: *Power Explorer* (Interactive Institute, 2008)
THEORETICAL FOUNDATION: Character Education
RECOMMENDED SMALLER-SCALE PATTERNS: Behavior mission & control Rewards Involvement of others Exemplars Direct Moralization* Value of the Day*

ETHICAL LENSES:

Commitment: On the one hand, the design encourages players to get to know the correct behavior and on the other hand, to enact it. The bridge between these two should be the moral emotion, motivating players' long-term commitment to the game values and to the behavior manifesting these values e.g. empathy for victims, appreciation of nature or responsibility. If the bridge between knowing what is good and doing good is just the fun of playing the game, it is possible that players fall back into their old behaviors when the game ends.

Moral autonomy: Players might not be able to reason for the behavior they are expected to adopt. This limitation of moral autonomy can be avoided by presenting to them the real consequences of the problem, or by motivating them to do personal research on the topic, to discuss, or to take critical decisions during the game. The game could also challenge the players to imagine alternative ways for defending the same values, as well as to discover alternative actions for tackling the problem, locally or globally. Constraining players to prescribed behaviors is also associated with a lack of ability to adjust and find new solutions in potentially problematic situations in the future.

Wide view: Especially when a global problem is addressed, the design needs to refer to the complexity of the problem and its political context (e.g. other causes, relevant actors, significant facts). This will help players understand the level of significance of their individual efforts, which reduces the risk of feeling content with their consciousness just by playing the game. Foremost, it would raise players' general concerns, while also leading them to the involvement in relevant political and social movements.

Ill values: If the game values are ill, the use of this pattern could be unethical.

Democracy: The integration of democratic practices is recommended, such as chances for discussion among players, collaboration and responsible decision-making. Especially when game values are related to democracy, it is a matter of moral coherence.

Fix the kids: The view on players and on human nature as something to be 'fixed' is a philosophical deficiency. Inspiring ways to balance this are the emphasis on players' critical thinking skills (e.g. through decision-making), and trust in players (e.g. by minimizing control and by being supportive).

Relativism: The promotion of commonly accepted values makes the pattern seem non-relativistic. Yet, what can be possibly relativistic is the tolerance of players' social and cultural environment that might be responsible for the internalization of 'wrong' behaviors. Unless the aim is relatively insignificant behavior modification, designers should not be scared to confront the values of players' surroundings and way of living. An idea is to evaluate players' performance with global fixed standards, rather than comparing with other players' performance. This could lead though, to a game with extreme requirements and radical behavioral changes made perhaps only for winning.

Means and ends: If players' actions are opposed to the terminal desirable values of the game, the design could be morally inconsistent (e.g. a game aiming at sustainability that sets a players' contest in who is more sustainable).

Reproduction of systemic values: When the resolution of socio-political problems is put on individuals' shoulders it might implicitly free systemic actors from responsibility, which sometimes are the most determinant. The design should address the systemic practices and hinders the confrontation of players with the systemic values and practices.

Table 9. "Just do the right thing": a large-scale game design pattern for VE.

NAME: Care for justice
AIM: The development of players' moral reasoning towards the values of justice, care for others, democracy, and respect for human rights. The ultimate aim is moral autonomy of the individuals, meaning the ability to deal with complex moral issues independently, without externally imposed rules.
SOLUTION: The players – possibly through an intricate game story – are involved in difficult moral conflicts and exposed to diverse moral perspectives. They are asked to pursue a resolution by making judgments. Affected by their concern for the others, players are encouraged to think beyond themselves and their own interests. In some cases, even outside the law. While players' values are continuously questioned, the game designer can explain, suggest, or criticize, but not directly impose a viewpoint. The designer also decides on the consequences of players' actions, bringing new moral challenges into play, until social justice is restored (or not).
EXAMPLE: *The Movement* (Waldritter, 2011)
THEORETICAL FOUNDATION: Moral Development
RECOMMENDED SMALLER-SCALE PATTERNS: Moral dilemmas Conflict resolution Role taking Discussion Decision making Analysis of narratives Moral community* Cooperative learning*

ETHICAL LENSES: **Democracy:** In multi-player games, all players should be treated equally, having the right to defend their views. They should not be given excessive power and some rules should be non-negotiable. Players should accept the majority's decisions and live with the consequences. An inherent problem of democracy though, is the "tyranny of majority"; when reasonable claims of the minority are oppressed by interests of the majority. **Relativism vs. Universalism:** The pattern forces justice, reasoning and rationality, but these values are not the only basis of moral judgment, as Western societies tend to believe. This signifies both a cultural bias and that the pattern is partly indoctrinative towards these values. Thus, an important concern of the game designer should be to balance these values with the inherent values of players' culture. **Reason vs. Action:** Moral reasoning does not necessarily lead to moral action. Thus, besides reasoning, it is suggested to motivate players to act coherently, or at least think how to act. An idea is assigning actions and their consequences to corresponding values (what does it mean in real life or in history, that right is what authority orders? How does someone behave who cares only for his/her own individual interest?) **Moral hierarchy:** This pattern should never be used for classifying people into moral types, unless the classification is not serious. What should also be kept in mind, is that prioritization of values in moral reasoning might differ significantly in genres. **Individuality vs. Care:** The design gives emphasis on rationality, moral superiority and autonomy, aiming at advancing players' reasoning skills, self-sufficiency and independence. However, to avoid fostering individuality, equal emphasis should be given to empathy, interdependence, compassion, and concern for the others, as ultimate goals.

Table 10. "Care for justice": a large-scale game design pattern for VE.

NAME: Values come from you
AIM: The clarification of players' own values. The ultimate aim for the individual is to act upon their values and become purposeful, happy, and committed to activities perceived as personally and socially meaningful. These individual efforts against apathy and ignorance can help at resolving the values confusion that characterizes our whole society.
SOLUTION: Players are let free to reflect on general moral issues in order to discover their own values. They are encouraged to express their viewpoints in public and to act upon them. The emphasis of the design is on the instrumental values defining the process of 'how' to think, choose, act, etc.; usually compiled in an agenda to be followed by the players in order to win.
EXAMPLE: *Urgent: Evoke* (World Bank Institute, 2010)
THEORETICAL FOUNDATION: Values Clarification

RECOMMENDED SMALLER-SCALE PATTERNS:

Life experience
Discover what values
Consequences of present actions
Wrestle with new issues & search for info
Problem Identification
Imagine the future
Self-confidence and Proud
Empathy
Choose among alternatives - Pros & Cons
Prioritization*
Free public expression
New ideas through discussion
Act and Report
Set goals
Learn and Report

ETHICAL LENSES:

Relativism: This pattern does not recognize any objective universal values. Relativism binds players/designers to accept that any view conflicting with their own may be equally valuable, well-rounded and justified as their own. Education though, cannot be completely values-neutral. This might lead players to moral confusion – contrary to the values clarity and awareness aimed by the pattern. Another pitfall leading to confusion is when values are mentioned in the game without their exact meaning being well-specified.

Process vs. content: The game might highlight only instrumental values that ground the process of players' reflection on their own values. Rather than being concerned with the values that likely emerge from this process. This risk can be avoided by considering as much the content of 'what' players publish, propose, or act during the game.

Reasoning: Players might not need to reason for defending their moral views, as they are not assigned to resolve any moral conflict. Moreover, as there is a lack of objective criteria for choosing among alternatives, or for evaluating consequences, players might use their own ready-made criteria. This hinders critical thinking. A worse scenario is players' self-grouping according to their preceding moral views. This risk can be avoided by motivating players to reason for their views, to participate in collective projects, and to make common decisions. It is important that not only players with coinciding views collaborate.

Justified evil: Without judgment, any ethical system is accepted. Besides the philosophical inconsistency that derives from the fact that even contradictory systems can be justified, arises also the great risk that ill value systems can be justified and actively supported.

Hidden agenda: As there is no educational attempt without supposition of values, implicit values and biases might be found in games following this pattern, e.g. a hidden agenda of values imposed through the game story. This practice is inconsistent with the pattern and can create risks depending on the nature of these values. Another relevant matter is whether players can change these hidden values, as often, players' criticism has no real impact on gameplay. Hence a different perspective can be organized only outside the game.

Tolerance: A question that arises is what happens in moral situations as e.g. genocides, slavery, rapes etc., when neutrality and tolerance may justify violations of basic human rights and lead individuals to inaction. Would the game design allow this? Another problem with tolerance is that its imposition as an absolute value, contradicts with relativism. **Cultural bias:** The designer needs to acknowledge that our moral judgments often arise from our cultural background. The question is, then: is it considered a "free" choice when a value is handed down as a family tradition (e.g. when one holds a religion, because his parents held the same)? This applies to all the inherited traditional values. **Excessive freedom:** To avoid indoctrination, the design might provide excessive freedom to players; players' actions might be based on spur-of-the-moment conclusions, irrational connections and invalid data, or might hold up against society's established conventions and traditional values. Some potential solutions are the provision of objective and unbiased sources of information, and counseling from people with experience and expertise. **Personal taste:** A possible risk is the deterioration of moral values to matters of personal taste, when serious problems are mixed and treated in the same relativistic way as personal matters with few moral implications. This might lead players to reduce all values to the lowest common denominator of personal preference, and to make frivolous judgments and perilous simplifications in significant and morally sensitive issues. To avoid this, an appropriate distinction needs to be made between superficial and profound values. **Coercion:** Players might feel inclined to move towards moderate opinions or to agree with other players' views. The expression in public of extreme, non-legitimate, or emotionally loaded positions involves a high risk of being judged, hence they might be precluded. This contradicts both with the freedom of players and with the true clarification of values. Attention should be stressed concerning teenagers and adults with high sensitivity to the judgment of others, as they can be severely affected.

Table 11. "Values come from you": a large-scale game design pattern for VE.

5.4.2.2. Small-scale Patterns for the Design of Games for VE

Here I continue by presenting some small-scale patterns deriving from this study.

NAME: Behavior mission and control
AIM: Controlling whether the player adopted the behavior promoted by the game.
SOLUTION: The game assigns to the player(s) missions of moral behavior and through a sensor-based system that monitors player(s) actions (in real time), controls whether, and to what extent, these missions are accomplished. Through a feedback system player's performance is reflected in the game (usually in the game score) consisting of a winning criterion. The standards to be reached could be either fixed, or relative – compared with other players' performance, or to the same player's previous performance.
EXAMPLE: *EnergyPULSE* (Jahn, Schwartz, Simon, & Jentsch, 2011)
THEORETICAL FOUNDATION: Character Education

ATTRIBUTED TO LARGE-SCALE PATTERN: Do the right thing
ETHICAL LENSES: **Long-term commitment:** The aim is that the player continues the promoted behavior after the game ends. If this does not occur, it is not always a matter of closer control and extreme measures, or a more casual game style. Parallel focus is suggested on the player's emotional attachment to the promoted behavior and also on providing a better understanding of the whole problem (including the sociopolitical context, the consequences, alternative views and reasoning, other causes).

Table 12. "Behavior mission & control": a small-scale game design pattern for VE.

NAME: Moral dilemma
AIM: Development of players' moral thinking and reasoning.
SOLUTION: The game requires the player(s) to choose between alternative courses of moral action, or arguments. The two options are equally favorable or unfavorable, but stress different moral values and have different consequences.
EXAMPLE:*Darfur is Dying* (interFUEL & LLC, 2006)
THEORETICAL FOUNDATION: Moral Development
ATTRIBUTED TO LARGE-SCALE PATTERN: Care for justice
ETHICAL LENSES: **Hypothesis vs Social reality:** Abstract hypothetical dilemmas might ignore significant aspects that affect players' real-life choices (e.g. social influences, real consequences, relational and socio-cultural-historical context). Thus, they might lead players to decisions other than the ones they would really make in everyday life, and to "morally superior" judgments. Therefore, it is suggested that dilemmas are simulated real-life dilemmas, or as far as is possible contextualized. **Implicit Bias:** The structure of hypothetical moral dilemmas can bias players towards particular choices and moral principles. Designers should consider carefully how the dilemmas are authored and the selection of the side information provided. **Ambiguity:** Ambiguity when referring to terms and values needs to be avoided.

Table 13. "Moral Dilemma": a small-scale game design pattern for moral education.

NAME: Act and report
AIM: Acting in reality according to own values and sharing it among other players.
SOLUTION: The game motivates players to act according to the values they support, document the action, and post a video, or photo from the experience. This is usually then praised by other players and rewarded.
EXAMPLE: *Camover* (Autistici/Inventati, 2013)
THEORETICAL FOUNDATION: Values Clarification
ATTRIBUTED TO LARGE-SCALE PATTERN: Values come from you
ETHICAL LENSES: **Confusion:** The game might fail to determine what actions are consistent with which values. Considering especially that relativism allows two contradictory positions to be justified (see: Justified evil), the risk is that the same value could be represented by contradictory actions. Thus, the designer should be more descriptive of what is entailed by "action". A relevant critical question is also whether public affirmation itself is in some ways action. **Limitations:** Some real-life limitations hinder our opportunities to act upon all our values. Asking players to act and report their action on a particular issue, should entail many other concerns, such as the context, the person's developmental progress, and the risks involved. (It might be unwise e.g. for one living under totalitarian rule to state publicly in a game his/her actions to abolish the rulers.) **Prematurity:** When players are rushed to act, they may rely on impulses and invalid data, make whimsical decisions, and get involved in implausible or meaningless projects. Premature action can even turn out to be harmful. Action therefore, should not be artificially induced and should be encouraged with caution. Another risk derives from the fact that going back on a publicly shared action is often perceived as "losing face". This might affect the later development of players – especially of adolescents, who have a tendency to genuine commitment. **Peer pressure and coercion to the mean:** A critical concern is whether players feel free to share in public experiences and actions that could be perceived by others as radical. The need for acceptance by others might put pressure on players, leading them toward moderate views and actions. Designers should not be surprised if players preclude extreme and emotionally loaded alternatives, even if legitimate. Attention should be stressed concerning teenagers, given the dynamics of teenage relationships, while adults with high sensitivity to the judgment of others can also be severely affected. This risk is inconsistent with the aim of value clarification. **Moralism:** Public affirmation and action are disputed for being both highly moralistic and judgmental. Moreover, as oversimplified generalizations they are potentially dangerous. This is inconsistent with the non-judgmental nature of values clarification.

Table 14. "Act and report": a small-scale game design pattern for moral education.

5.5. Proof of Concept: Re-Designing *Epilogi In Crisis*

After the creation of the above pattern language and the creation of a preliminary set of design patterns, I attempt to re-design a game based on these patterns. The aim is to test and demonstrate the practicality of these patterns in the design process. The game I chose to re-design is called *Epilogi In Crisis* (Tramus, et al., 2014). *Epilogi In Crisis* is an educational art-game in VR about the recent social and economical crisis in Greece, developed by a research group from the Greek-French MSc[104] "Art, virtual reality and multi-user systems of artistic expression", organized by the Athens School of Fine Arts and the Paris-8 University.

There are various reasons I selected to work on this game. Most importantly, the aim of the game fits completely with my research concerns. The project *Epilogi In Crisis* was intended to provide the players a unique moral and learning experience, by bringing to the surface moral concerns of the individual in times of societal crisis[105]. More specifically, the game deals with a widely discussed and challenging problem of our time i.e. how the economic crisis is affecting society, and does this by giving a voice to a very affected group by this crisis, the young Greek artists.

The re-design of *Epilogi In Crisis*, as a process, involved the following steps:

a) Reflection on the designers' intentions and choosing the appropriate patterns.

The intention of this game's design is to express common critical thoughts and feelings resulting from the Greek economic crisis and how one thought follows the other, as a

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[104] The Master program has the title "Art, virtual reality and multiuser systems of artistic expression". The artistic and scientific direction of the project was from Marie-Hélène Tramus and Manthos Santorineos. The art students working on the concept and the game development are: John Bardakos , Christina Chrisanthopoulou, Ifigeneia Mavridou, Anna Meli, Nikos Papadopoulos, Argyro Papathanasiou, and Maria Velaora. Other teachers participating in the project are Stavroula Zoi, Nefeli Dimitriadi and Taxiarchis Diamantopoulos.

[105] The initial graph of choices included in the game is depicted in Fig.1. Previously, the research group attempted to find answers to these matters in Law; this is why the paper presented at the conference (Santorineos et al., 2014) contains a paragraph called „Law and Rules". The appropriateness of my approach, though, has been convincing enough for changing the theoretical ground along with the content of the game.

logical sequence. The game is based exclusively on moral dilemmas, as nodes that guide the player through a larger network. During gameplay, players are asked to make moral choices, by reflecting constantly and deliberately on their values, or by experimenting with different moral options. In this way, they move from one node to another, creating their personal path in the virtual network of crisis. This structure represents the crisis itself, and stems from the core idea of the game: "The project refers to the concept of "crisis" as an "object" that has a structure of choices and interconnections in the system that it grows" (Santorineos, Zoi, Dimitriadi, & Tselepidou, 2014, p. 7). The name of the game has been selected for implying exactly this; "epilogi" in Greek means 'choice', while the verb 'κρίνω' (kríno) meaning "to judge whether something is right or wrong" is the root of the word "crisis".

All these concerns are studied by the approach of moral development and are crystallized in the design patterns created in this study. On these grounds, the design patterns selected for the re-design of *Epilogi In Crisis* are: "Moral Dilemma" supporting "Care for justice".

My role in this phase was to introduce the patterns to the designers, comprehend the aims of the project and guide towards the selection of the most representative patterns. The young artists, as well as the professors involved in this project, attended a presentation of the design patterns created in this study. In the discussion that followed, the intentions of the project were better clarified. The connection between the designers' intentions to the design patterns of moral development became also evident. The patterns of *Moral Dilemma* and *Care for Justice* seemed very suitable for the redesign of the game, as the game was intended to be built upon personal dilemmas/choices and its subject was a complex societal problem. On these grounds, these two patterns were selected.

b) Reflection on the selected patterns (aims, solutions, ethical lenses) with parallel connection to designers' own experiences and intentions.

During gameplay, the player finds herself in a different room every time, with a question written on the walls and two or three doors of exit. Each door represents a different feeling and a different answer to the question. In the initial version of the game, the designers created the nodes and set dilemmas based on their own thoughts and feelings during the crisis (Fig.1). In the new version of the game though, the moral dilemmas that

players confront in each room needed to be re-designed, with the new game-dilemmas being inspired by Kohlberg's moral developmental stages, as prescribed in the selected pattern (Fig.2).

For proceeding, I presented to the artists the particular patterns in detail, including all their characteristics. There was time then, for reflection - and later discussion - regarding the connection of these characteristics to the prevailing social issues that concerned Greek citizens during the crisis. Much attention has been given as well to the ethical lenses of the patterns, in order to avoid possible pitfalls during the redesign of the game.

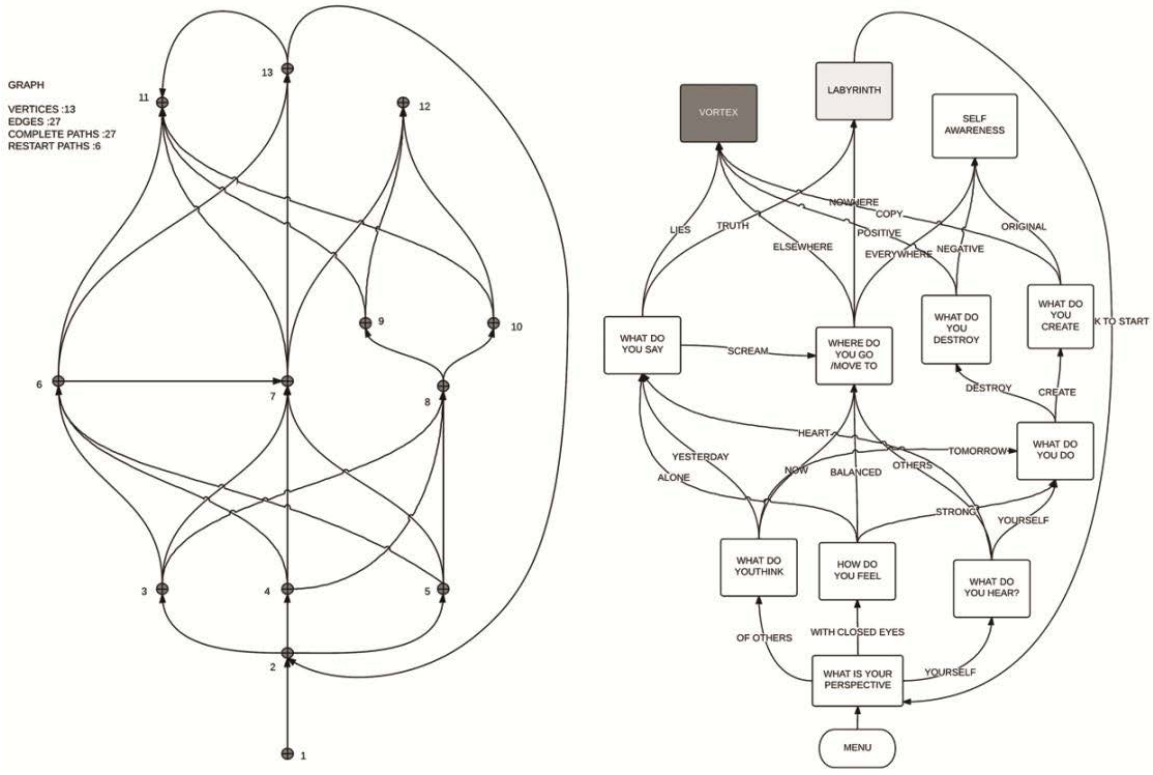

Figure 1: The graph of choices, as initially designed by the group of art researchers.

c) Re-building the structure and the content based on the patterns & the designers' creativity.

In this process, my role was to work on re-building the structure and the content of the game, based on the selected patterns, while also taking into consideration the aims of the project and the intentions of the designers' group. After all, I came up with a new structure in the net of nodes of the game and new dilemmas/content. The group of designers, after studying and discussing my proposal, accepted it and agreed to create a new version of the game. The rebuilding of the VR game according to the new design has

been undertaken exclusively by the group of artists. When the product was ready to be played, the game was revised both by me and the group of artists and some small changes have been made. The final structure is presented in the images below (Fig.2-3).

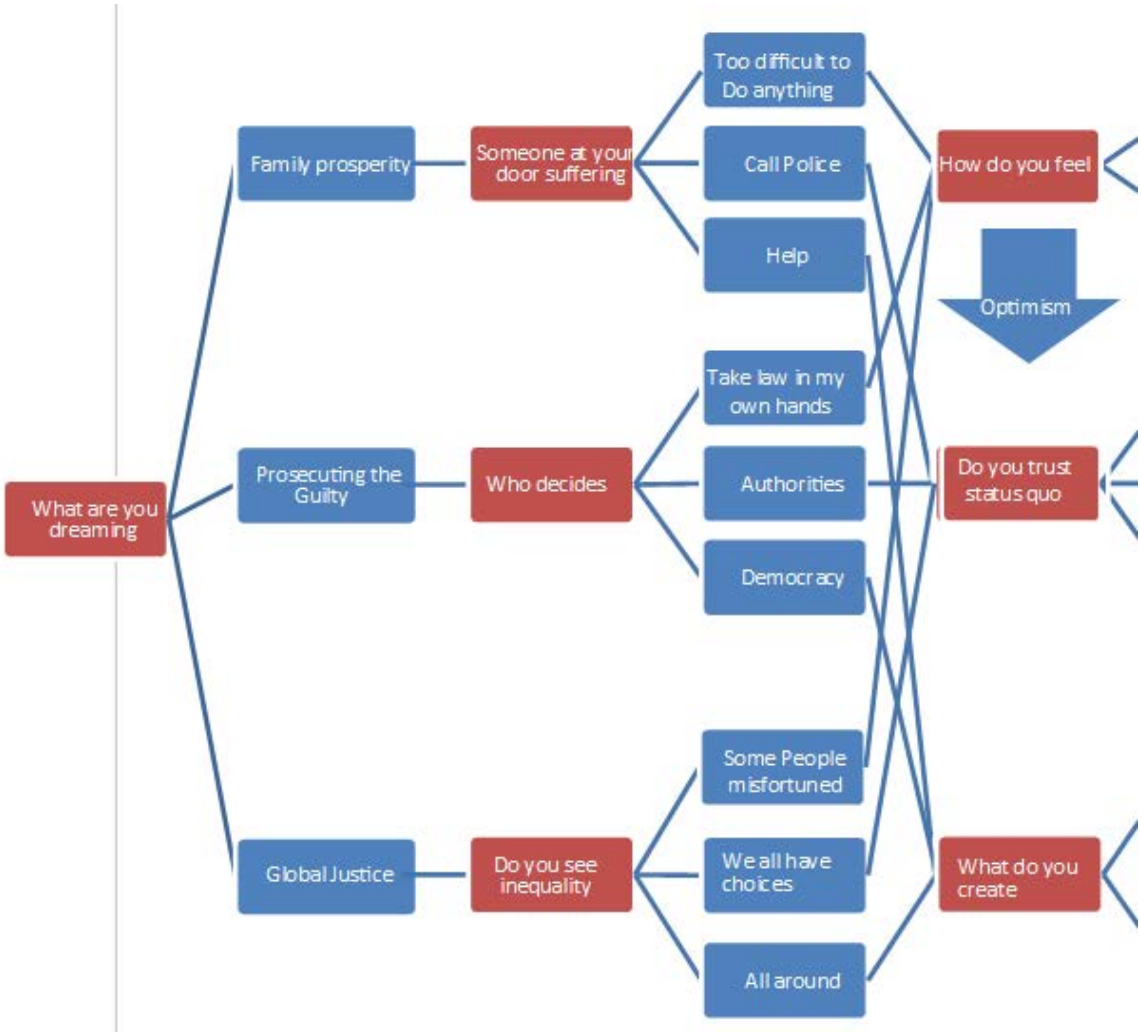

Figure 2. The graph of choices (first half), as designed using the game design patterns.

Here I present a part of these new moral dilemmas, in order to demonstrate the connection of the new content to the design pattern of Moral Dilemmas. More precisely, I illustrate four dilemmas/nodes out of the nine dilemmas/nodes of the game. For each of these four dilemmas, I quote the question and the corresponding answers, in the form of a multiple-choice question:

1. Dilemma: *What are you dreaming?*
    a) *Family prosperity; b) Prosecuting the guilty; c) Global justice.*

This first dilemma attempts to investigate the end-state moral goals of the player. The answer (a) 'family prosperity' is inspired by the third developmental stage of Kohlberg, related to interpersonal concordance. If players' response is (a), in the next room they are

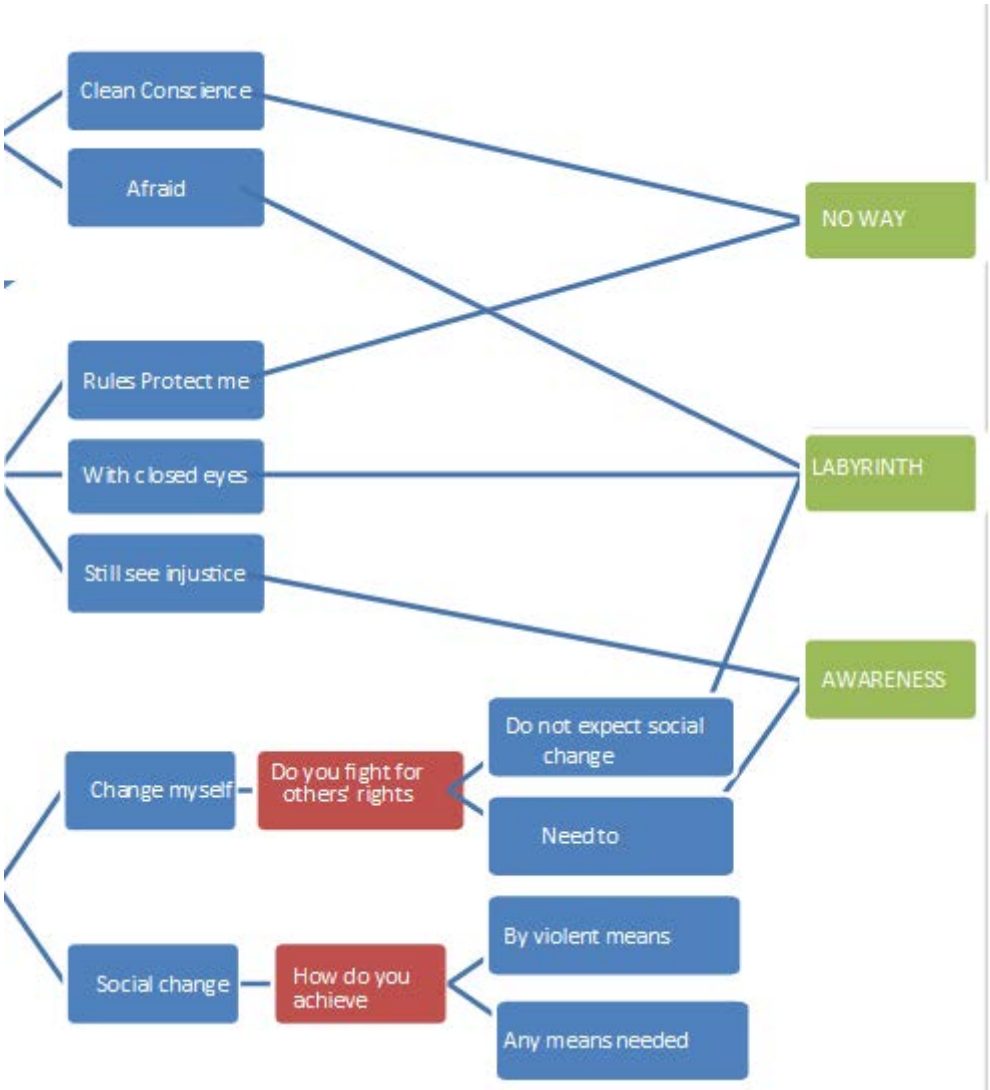

Figure 3. The graph of choices (second half), as designed using the game design patterns.

confronted with the second dilemma presented below. If players choose the response (b) 'Prosecuting the guilty', the subsequent dilemma is 'Who decides who is guilty' - with the given choices (a) "Take law into my own hands", (b) "Authorities" and (c) "Democracy". The third response (c) 'Global justice' constitutes the goal-value of the educational process of moral development altogether. This response leads players to the third dilemma, as listed below: 'Do you see inequality?'.

2. Dilemma: *Someone at your door, suffering.*
    a) *Too hard to do something; b) Call the police; c) Help.*

This dilemma is an attempt to invoke players' feelings of care for people outside their intimate social circle, which is a characteristic of the 4th/5th/6th developmental stages. The first response (a) is indicative of the 3rd developmental stage of Kohlberg, while the second response (b) is related to the 4th stage of law and order - both responses leading players to relevant moral dilemmas (not described here). As for the third response (c), it represents a direct solidarity action, which leads players to the third dilemma.

3. Dilemma: *Do you see inequality?*
    a) *Some people have misfortune; b) We all have choices; c) All around.*

This question asks from the player to investigate her social reality and gives some critical options for response. The response (a) "Some people have misfortune" suggests that inequality might be natural and therefore, leads to dilemmas related more to the 3rd stage. The choice (b) "We all have choices" might indicate excessive compliance with the 'law', even in case of injustice. Thus, it leads to a question related to the 3rd-4th-5th moral stages of Kohlberg. Finally, the response (c) "All around" recognizes injustice in the society and leads players to ask themselves whether they aim at personal or social change. This last dilemma is inspired by the ethical lenses of the design pattern, as one of the critiques of Kohlberg's theory is that it might invoke only personal moral development and not social moral action.

The application of the design pattern has been smooth, as well as the collaboration with the artists' research team for the design. The application of these two patterns for the design of the game *Epilogi In Crisis* is considered as a ***proof of concept*** for this study.[106] It confirms that this preliminary library of patterns has a practical potential and is directly applicable for designing games for moral awareness.

[106] The University of Bremen contributed to this project by providing appropriate equipment i.e. a head mounted display, needed for work on this project. The final product is available to play, and has been already presented in various conferences and art-exhibitions.

6. Contribution to the Game Studies

The aim of the present research was the exploration of games teaching values through the prism of the traditional field of VE. The investigation is on whether the study of the diverse VE movements can provide a better understanding of G4Cs and new knowledge regarding the design of games teaching values. To this end, this project has been proven successful, as it has achieved to connect the field of VE to the design of G4Cs. The most significant outcome of this project is the VEGA model, which can be used as a tool for analysis of G4Cs in terms of the moral education of players. The VEGA model has been created from the thematic analysis of three VE approaches and through the case studies has been empirically applied to games, demonstrating its applicability and relevance. In this chapter, I describe more explicitly the significance and the implications of this study's findings to the scientific field of game studies and in the general field of digital media.

6.1. Significance of the findings in relation to earlier studies

The findings of this project advance our knowledge on the field of values and games. Research into the values and the ethics of games does not have a long history. However, over the past decade there have been some remarkable advances, shortly described in the paragraph 4 of this thesis. Here I intend to discuss the findings of this project in reference and mainly as a complement to these earlier studies. This project has contributed to the ***analysis*** of the ethics of G4Cs by developing the **VEGA model for analyzing values and moral education in G4Cs.** The VEGA model offers a useful tool for analysis that can answer central questions regarding the design of games for moral education. Such questions are regarding the types of skills that are solicited and the moral values that are promoted by different design approaches, the relevance of social context, the possible biases and moral risks, the role of moral agency in teaching values and how a consistent moral education of players can be supported.

Overall, this study has introduced **three distinct game design approaches for moral education**, each of them with its own set of moral objectives, design techniques, ethics, and moral implications. This is not the first attempt to draw on VE approaches for understanding and fostering prosocial development through games. A previous study (Koo & Seider, 2010) selected frameworks of moral education, character education, and

care ethics, and attempted to search how games might advance the goals of any of these approaches to prosocial development. The authors focused on three mechanisms of games, which recall the discussion above. These are: the *content* of the game – meaning plot, character, graphics, sound, or some combination; the *gameplay* – meaning "the rules, principles, and objectives governing what participants do"; and finally the *social scaffolds that surround the actual gameplay experience*, which cannot be predicted easily. Hence, the conclusions are that through the content, character educators could promote behaviors to be imitated by the players. However, they should pay equal attention to the gameplay and to the values that the rules of the game articulate. As for educators who focus on moral reasoning, they might recognize that "video games are more than story-deep" and therefore "encourage students to also consider whether a game's rules, and not just its plotline or characters, are fair or just". Most importantly, they should take advantage of opportunities for in-game reflection in multiplayer games, which could be done through dilemmas and negotiations, or through social interaction and dialogue among the players. The aim is to "instantiate a version of Kohlberg's "just community" – a social space where individuals have the opportunity to debate, discuss, and resolve challenging moral issues relevant to themselves" (p.27). The care-ethicists, on the other hand, advocate role-playing as a way to understand the others' feelings and situations and see the world from a different perspective. As it appears, the results of this study are very similar to some of the findings from this study. However, the work of Koo and Seider is only a preliminary survey on the topic, which does not produce either a deep analysis or any concrete empirical conclusions[107]. Finally, the study does not proceed to the explicit analysis of games designed for prosocial learning, but refers only to gameplay instances, spanning from Zoo Tycoon to World of Warcraft and Grand Theft Auto.

These distinct ways of perceiving and applying moral education in games reflect as well other significant works in this area. Bogost has made a distinction between "schooling"

[107] How exactly e.g. these theories for prosocial learning are applied in existing games? What opportunities do they offer for designing games, either for values inculcation or for moral reflection?

and "educating" through games[108] (p. 264) and divided games into two categories; games that represent particular ethical positions "through logics that enforce player behavior along a particular moral register" and games that represent some "ethical doubt", where right is not always clear, but derives from interconnected interests (p.287). On this basis, Schrier has highlighted the benefits of teaching players how to think critically, rather than a list of rules guiding players to a single correct way to behave (Schrier, 2010; Schrier & Kinzer, 2009; Schrier, 2014b). Considering the complexity of modern social and political problems, Schrier finds it to be essential that players are able to determine right from wrong in multiple diverse contexts. These qualities have also been the subject of my study. However, this study has made a clearer and even more elaborated distinction between diverse game design approaches.

One of the fundamental differences among the three VE approaches studied in this project is related to the players' freedoms or limitations for the formation of the game's values during play. According to Sicart (2009), this is the **players' moral agency.** The view of Sicart is that an ethical game should respect the player as a moral being. Hence, the game design should encourage them to exert their moral judgment as a player, and to afford their own ethical values and behaviors in the game, guiding gameplay. To achieve this, game designers should pay attention not only to the values embedded in the rules and in the game world, but also to the ways that these values are presented to the players. That is to say, the choices and constraints provided to them by the game system, as well as the extent to which players are allowed to relate to the game, add to it, or transform it, from an ethical perspective. On this basis, Sicart distinguishes two types of ethical game design[109]; *open ethical design* and *closed ethical design*. Open ethical design is when the game can be adapted to the ethical choices of the players[110], while closed ethical design is when the ethical choices of the game design do not allow the player to contribute their own values to it. Similarly, in the framework of Stevenson (2011), there are three major

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[108] The first applies to religious games and games that "end up being used in schools or workplaces", and the second applies to educational games that "spur consideration about the aspects of the world they represent" (p.264).

[109] These two types of game design both respect the player´s moral agency.

[110] As stated, an open ethical system is when players' values "can be implemented in the game world or are reflected dynamically by it" (Sicart, 2009, pp. 214–215).

types of ethical games[111]; *static* games, *adaptive* games and *systemic* games. In the static games, the ethical decisions of the player cannot have an actual impact on the game. Adaptive games invite players to make ethical decisions. These decisions do not have obvious quantifiable consequences as a result (e.g. rewards or penalties), but determine the players' access to different narrative content, or a different order of events. Finally, systemic games take into account the player's ethical decisions and change in regard to them, in quantifiable and measurable ways. My own approach lends support to this claim of accounting for players' moral agency.**With a focus on games aiming to teach values, this study has identified three distinct ways that the ethical system interacts with the player's moral values and actions, meaning three distinct types of moral agency**. These distinct types of moral agency in G4Cs, clearly described in the VEGA model and empirically documented in the games studied, extend our knowledge in the field of values and game design/analysis.

The concept of relating the dominant VE theories to the understanding of game design for educational purposes has been previously approached by Bogost. Referring to behaviorism and constructivism, Bogost questions whether one of these philosophies is adequate to be used as a model for understanding educational games[112]. Then, he proceeds to the empirical analysis of some games from both perspectives[113] and concludes that both aspects have deficiencies in understanding learning in games;

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[111] The first type is static games, which although they integrate players through their goals and game play, the ethical decisions of the player cannot have an actual impact on the game. The second type is adaptive games, which invite players to make ethical decisions. These decisions do not have obvious quantifiable consequences as a result (e.g. rewards, penalties or other game changes), determine the players' access to different narrative content, or a different order of events. Finally, the third type is systemic games, which take into account the player's ethical decisions and change in regard to them, in quantifiable and measurable ways.

[112] In Bogost´s short analysis, the behaviorist model of games would rely on reinforcement and repeated behavior in order for this behavior to be adapted by the players, while the game world would attempt to teach the content needed to be learned in the real world, whereas the constructivist tradition would give more emphasis on experiencing the knowledge and experimenting with it. The game, in this case, would uncover the abstract relations and principles of the represented systems.

[113] One of the studied games, for instance, is Microsoft Flight Simulator, a simulation of aircraft flying. From the behaviorist perspective this can be considered a game that brings aviation knowledge to the players, whereas, from the constructionist perspective, it can be seen as a game that helps players experiment with this knowledge freely, before gaining competence.

behaviorism is too content-specific and constructivism is too process-abstract[114]. This study seems to be very relevant to my own research, in terms of theoretical background. However, Bogost's aim is to choose one of these educational approaches for understanding the entire design of learning games. While my research intention is to identify whether these diverse VE theories can help in understanding and mapping diverse design approaches of G4cs. This implies that in different games, different VE approaches would be dominant. Furthermore, my approach is based on three VE theories, from which, one is behaviorist (character education), one is cognitive (moral development) and one is constructivist (values clarification). It is important to note here as well, that this study is not a comparative study. That is to say, the goal is not the identification of the best of the analyzed design approaches, nor is it the suggestion of one approach over the other. Contrariwise, one of the fundamental principles of this research is the impartiality towards the three analyzed design approaches.

How is supported then, the design of "better" G4Cs? The concept of **"better" G4Cs** is central to the scope of this thesis. It is translated as **a more conscientious design of G4C towards a more consistent moral education of players**. These objectives have been shaped throughout this study and precise definitions have been given. This attempt of defining the ultimate moral objective of G4Cs is already a contribution to the field of game studies. Regarding the players' consistent moral education, a precise definition has been proven very challenging. This is one more indicator that the question of this research is actually a wicked problem (as acknowledged in the Introduction of this thesis). The way that one perceives and defines these concepts, provides already the way for achieving them as goals. This project traced the description of this term back to the concept of the "quality without a name". Thus, it occurs that each design approach has its own consensus about what a consistent moral education of players means. As for the goal of the "conscientious design of G4Cs", it is inspired by the definition of conscientious design by Flanagan, while also providing a deeper insight into what conscientious design particularly of G4Cs means. This study has managed to create tools that facilitate designers to clarify their moral objectives, the nature of values to be promoted through

[114] Therefore, Bogost proposes a new approach for understanding educational games, in which the learning game is viewed as offering a particular position on a topic, by providing insights into its abstract rules and relationships. This approach is introduced as "procedural literacy".

the game, and the way to convey these values to players. Very important role towards better G4Cs has also played the study of the substantial critique of the educational approaches. The outcome of this study has been concreticized in the ethical lenses of the patterns created. These lenses reflect on critical pedagogical matters commonly encountered when designing G4Cs, including the possible moral pitfalls and risks of the three distinct design approaches and some suggestions for handling them.

Apart from the conscientious design, this study has provided also the essential vocabulary and a solid **research ground for the comparison and assessment of G4Cs**, again towards the direction of the consistent moral education of players. Thus, along with the identification of the values and the identification of the pedagogical design approach of a G4C, one could also discuss the benefits or risks of these design choices, contrast them to alternative moral approaches, draw conclusions regarding the most popular philosophical debates related to VE, or compare between game elements and ethical gameplay experiences. The critical view that this study offers was missing from the recent literature. In the same vein, this project raises the possibility of the design *improvement* of already existing G4Cs, or, at least of the experimentation with new design ideas towards a more consistent moral education of players. This direction is also missing from recent game research.

This study has brought to the surface many critical aspects that need to be considered when talking about G4Cs and ethical game design. These findings complement those of earlier studies. One of the subjects broadly discussed, for example, is the **ethical reasoning** that emerges during gameplay (Simkins & Steinkeuhler, 2008) and its potential to support ethical practice. Research has also been done on **moral dilemmas** as well as **care ethics** (Murphy & Zagal, 2011; José P Zagal, 2009) for encouraging ethical reasoning and reflection. Moreover, there is a large volume of published studies that discuss the benefits and the ways of **fostering empathy** and creating affective experiences through game design (Belman & Flanagan, 2009; Blot, 2017; Frome, 2007; Wen-Hao & Tettegah, 2014). Other significant concerns of game scholars and designers of G4Cs have been the challenge of achieving **long-term behavior change** (Gamberini et al., 2011; Gustafsson, Katzeff, & Bang, 2009; Lavender, 2011; Paredes, Tewari, & Canny, 2013; Schuller, Dunwell, Weninger, & Paletta, 2013), the gap between players' in-game actions and their real-world values (Stevens et al., 2008), the societal effects of persuasive games (Ruggiero, 2014), as well as the role of culture in persuasive design

(Khaled, 2008). The contribution of this study has been not only to **confirm the importance of all these aspects in the moral education of players**, **but also to complement the finding of earlier studies, by expanding our understanding on how these aspects can be combined, be balanced and fit together in the design of a G4C.**

This study appears also to be one of the few attempts that, both theoretically and empirically, address **a wide variety of values and include a great deal of pedagogical matters and major debates in the fields of ethics in digital media**. The inclusion of any critical ethical and pedagogical matters that derived from the literature of moral education, allows the discussion among designers, educators or other stakeholders on these matters, and provides the essential vocabulary for the analysis, the design and the criticism of G4Cs. A notable example of a popular debate taken into serious consideration in this study, is that of *absolutism versus relativism*. This project has achieved a comprehensive investigation of this debate in the field of values education, acknowledging the most significant arguments from both sides and researching their role in the design of G4Cs. This particular debate is not included, for instance, in *Values at Play* - VAP (Flanagan & Nissenbaum, 2014), and although the authors acknowledge its significance for the field, they finally decide not to include it in the study. Flanagan and Nissenbaum rather choose particular values to be stressed in their work – artfully mentioned as "commonly encountered" and "socially recognized" values – adopted by particular sources.[115] It is clear that this declaration of biases, followed by a list of values to be studied, inevitably creates boundaries in the research. My work though, does not exclude any ethical values or any moral issues, notwithstanding the complexity. Apart from contributing to the analysis of games teaching values, the findings of this study shed

[115] As stated in the book: "Here is the stance that we have adopted throughout the book: as citizens of a liberal, egalitarian democracy, we hold a bias in favor of values such as respect for human rights, the rule of law, individual freedom, justice and the basic equality of all human beings. We are inspired by foundational political documents, including the U.S. Constitution, the Charter of the United Nations, and the Canadian Charter of Rights and Freedoms. We also depend on literature in ethics and political philosophy as well as ideals embodied in religious documents. From the high-minded to the vernacular, these sources reveal a resilient core. Values that we encounter in these explorations include justice, equality, freedom, autonomy, security, happiness, privacy, tolerance, cooperation, creativity, generosity, trust, equity, diversity, fidelity, integrity, environmentalism, liberation, self-determination, democracy, and tradition. These commonly encountered, socially recognized values are points of departure for Values at Play."

new light as well on the **design of G4Cs**. The creation of a moral artifact and the design of an overall learning experience carry a great weight of responsibility, as it also brings up many complex issues that need to be sufficiently addressed, related e.g. to the design of the moral content of the game, the variant sources of biases, or the moral risks and implications of particular design choices. These matters are even more important when talking about games aiming at teaching values. This study has provided moral counseling to the designers of G4Cs, both theoretical and practical, by creating a model that identifies three diverse design approaches for educating players in values. The study continued further, to the construction of a pattern language and the initiation of a collection of patterns for designing games teaching values. The actual use of these patterns for the design of the game *Epilogi in Crisis* has confirmed that the current pattern library, while preliminary, constitutes a firm and applicable tool. These results offer to the conscientious designers of G4Cs the chance to consider better their moral intentions, and depending on their objectives and other factors, to choose and directly apply design patterns for teaching values.

This contribution addresses the research needs of the field of serious games, focusing on the **development of instructional requirements and integration strategies for games to help them accomplish the intended goals**. As more accurately stated, "Despite the abundance of literature on SGs, few papers provide a detailed description of the specific SG mechanics (and underlying methodologies) through which a topic is "translated" into a SG. (…) translating facts and characteristics in games for effective learning is complex and represents a still largely unexplored educational research area, at least for non business-management disciplines" (Bellotti, Berta, & De Gloria, 2010, p.29).

In this field, Schrier's work is very relevant to my work. Schrier (2014) introduces a list with the "best practices for designing ethical thinking in games"[116] (Schrier, 2014a, p. 153), providing a type of practical moral guidance that is similar to my research findings. However, a fundamental difference to Schrier's work my work is based on diverse educational philosophies for teaching ethics and empirically anchored in my case studies of G4Cs. A fundamental assumption of this project is that **depending on the designer's**

[116] The suggested practices are: exposing players to alternative perspectives, giving them the opportunity to deliberate with others, as well as the opportunity to make choices which are personally meaningful and relatable.

intentions as well as on the nature of promoted values and other significant factors, the moral challenges of the game design vary, and therefore, different moral guidance is needed. Another work of Schrier is the *Ethics Practice and Implementation Categorization [EPIC] framework* (2015). The EPIC framework is equally interested in the identification of different approaches for teaching ethics through games - depending on the unique educational goals and strategies, while it has also derived from the exploration of literature, including, among the theories examined, Kohlberg's moral development theory. However, the EPIC framework is limited to the counseling of educators for choosing already-developed games for enhancing particular ethical skills, while my approach aims at facilitating designers of G4Cs to account for values and other significant moral issues also when developing new games.

Another significant study in the field of values and game design, is *Values at Play - VAP* - (Flanagan & Nissenbaum, 2014), which has produced two frameworks; the game's *semantic architecture and* a hands-on *heuristic for values-conscious design***.** The first is constituted by 15 elements from which values and meanings can be generated. Some of them are. the narrative, the premise and goals, the characters, the actions, the players´ choices, or the rules for interaction with other players and with the environment. As for the succeeding *heuristic for values-conscious design,* it facilitates designers to define the values relevant to a given project and to communicate them successfully through the above game elements. **My approach though, is not concerned as much with the integration of certain values to particular game elements, rather with the design process of educating players in any sort of moral values, and with the values that this process carries.** For instance, in the game *Profit Seed* -as analyzed by VAP, players control gusts of wind to move seeds along the farm fields, some of which are organic and some genetically modified. The player must be careful not to mix seeds in the same land, as this will have judicial consequences. What is concluded from the VAP analysis is that the game allows players "to explore the values of private and intellectual property, sustainability, and fairness" (Flanagan & Nissenbaum, 2014, p. 104). It is not clarified though what exactly is the designer's intention regarding the exploration of these values. Are these values intended to be just practiced by the players, to be adopted, or to be reflected upon? In other words, what is the expected moral outcome of the game? It is apparent that particularly in the case of G4Cs, these aspects are crucial. As the findings of this study suggest, **conscientious designers and producers of G4Cs thus, need to**

account not only for the nature of the embedded values (what), but also for the moral objectives (why) of their games as well as for their educational approach (how). As both the theoretical and the empirical parts of this study have demonstrated, these aspects are interconnected.

The results of this study support the idea that the design process of games teaching values can be assisted by a pattern language. This study has managed to provide **a pattern language and a preliminary set of game design patterns for VE based on three distinct philosophical approaches.** The construction of a pattern language and a pattern library - even if limited and preliminary, constitutes a firm attempt to build a **shared vocabulary for understanding and discussing how games for moral education can be designed.** The current lack of a shared vocabulary in the field of game design has been long ago acknowledged, as well as the urgent need for it (Church, 1999, p. 2). Indeed, the popularity of educational games has raised the need that "people without professional game design skills, such as teachers, corporate trainers, therapists and advertising professionals, request tools that could allow them to create or modify such games" (Egenfeldt-Nielsen, 2005). The language created in this study could facilitate all the stakeholders participating in the game creation process (educators, politicians, environmental institutions, sponsors, etc) to discuss and review their moral and educational intentions, while it also raises some common concerns. Therefore, it could establish a useful communication between the designers of G4Cs and anybody involved in the design of G4Cs.

Designers can also modify the patterns, if their creativity requires it. This opportunity of new creation and refinement of patterns creates the possibility of innovation in the design of G4Cs (Mcgee, 2007). In general, this study provides **inspiration for value-based innovation design**. While the patterns created in the current project can also serve as a basis for future investigations and for generating more knowledge regarding the design of games teaching values.

The insights gained from this study may also be of assistance to the **field of persuasive design** (Fogg, B.J., 2003; Oinas-Kukkonen & Harjumaa, 2009). As the results of this research indicate, the persuasive design is connected to the VE approach of character education. According to a recent study (Torning K. and Oinas-Kukkonnen H., 2009), "The field has faced and will continue to face ethical challenges (…). Unfortunately, our review [of 51 peer-reviewed papers based on the Persuasive Technology Conferences]

revealed that so far these have been poorly addressed in the published research papers." (...) Therefore, to a high degree, we must assume responsibility for the ethical aspects of such designs as we embark on encouraging a certain behavior or attitude" The finding of this research shed new light on the ethical implications of persuasive design, as well as provide the ethical lenses needed for a conscientious design of persuasive technologies, and new design possibilities for changing users' attitudes, beyond the focus on behavior. An example of this contribution to persuasive design, is presented in the book *"Cases on the Societal Effects of Persuasive Games"* (Skamnioti, 2014b). Drawing on the moral deficiencies of Power Explorer, the aim is not the condemnation of character education as an approach for designing G4Cs, rather it is seeking innovative ways for handling common risks and possible pitfalls of this approach. This study raises important questions about how games using captological[117] technologies can also develop moral reasoning, or inform players more holistically about the real-world problem addressed by the game (e.g. consequences, fundamental causes, role of political structures), or achieve a long-term change of players' behavior.

All the above efforts are well balanced with the aims of the G4Cs movement and **add to the rapidly expanding field of designing games for moral awareness and social impact.** G4Cs´ designers seek to create critical tools with humanitarian and educational objectives, dealing always with new emerging topics and diverse debates. As stated in the official website of the G4Cs festival 2019: "The ability of games and play to facilitate understanding and promote engagement with socio-political issues and lived experiences is more important than ever. This track highlights how games can bridge the gaps between different opinions and call for action in a time when rapid shifts in the political sphere demand that citizens come to grips with the complex systems that govern our lives" (Games for Change, 2019b). Or, as asserted in the official website of the "Games for Change" non-profit corporation, the aim is: "to drive real-world change using games

[117] Interestingly, the analysis refers to Bogost's differentiation (2007) of persuasive games from persuasive technology and from the concept of 'captology' introduced by B.J. Fogg (1998). "The concept of "Captology" is an acronym for computers as persuasive technologies and captures "the domain of research, design, and applications of persuasive computers," revealing "how Web sites, software applications, and mobile devices can be used to change people's attitudes and behavior" (Fogg, 2003). The analysis also refers to the concept of surveillance that has been further examined in relation to persuasive technologies (Jespersen, Albrechtslund, & Øhrstrøm, 2007).

and technology that help people to learn, improve their communities, and contribute to make the world a better place" (Games for Change, 2019a). This research project facilitates all this undertaking, by studying how games can provide to players a consistent moral awareness on complex socio-political, while also clarifying how different the meaning of "a better world" and "social good" can be. Reflecting on the ethics of games that can drive a "real-world change", personal or social, is a heavy responsibility, especially since games have been proven to be the most popular media of the twenty-first century and capable of shaping citizenship education, personal development and political action.

6.2. Limitations of the current study and recommendations for further research

Game literature generally sees games as a medium with the potential to generate and increase awareness of important societal issues. Indeed, there are examples where the use of G4Cs has been shown to be effective, such as in experiential learning for sustainability (Dieleman and Huisingh 2006), development of ethical thinking (Schrier, 2011; Schrier, 2014a), nourishment of responsible behavior (Hodhod et al., 2011), encouragement of dialogue and deliberation on serious issues (Schrier, 2014b). However, it is important to bear in mind that "the goal of increasing public awareness of societal issues is an ambitious one and would require a more thoughtful design process with a stronger pedagogical underpinning" (Rebolledo-Mendez, Avramides, de Freitas, & Memarzia, 2009). What is therefore needed is a clearer analysis of what "raising public awareness" means and how it can be achieved. The approach of this study attempts to incorporate some fundamental theories and practices for teaching values to the design of G4Cs. The overall knowledge produced by this study, may be of assistance and practical use to professional game designers as well as to non-professional designers of G4Cs, as educators or developers[118].

[118] Non-professional game designers could use new types of gaming/leisure environments, as e.g. Virtual Worlds (Vws) controlled by AI, or if they do not will to develop their own ad-hoc games, perhaps they could benefit from the educational use of Commercial Off The Shelf (COTS) games, in innovative ways (Blunt, 2008; Eck, 2006).

Yet, this study is unable to encompass the entire space of possibilities regarding the design of games for moral awareness, and the implications they might have. This is because this topic may be too broad, considering the variety of the designer's choices, the multiple moral interactions that occur during gameplay, and finally, the unforeseen players' actual experiences.

Additionally, it is important to bear in mind the possible biases and the different interpretations of the involved concepts. These biases point toward the wicked problem (as acknowledged in the Introduction of the current thesis) of serious risk of misinterpretations in the design of G4Cs in a complex context. In this study though, this risk of bias is reduced due to a number of factors. The study uses a theory-based approach and introduces three diverse educational approaches, which are partly contradictory and incompatible. This means that my approach is not a one-sided view of the topic; on the contrary, these theories shed light on VE from different angles, functioning as complements needed to make up the whole. Foremost, by including the criticism of each VE approach, this survey is undertaken with the biases and other critical issues in this field in mind. Finally, the aim of this study is not to compare, judge or choose between these VE theories[119], rather to understand and describe their diversity when applied in game design. This inclusive and descriptive approach helps for overcoming the risk of partiality and the intractability of the field.

A significant limitation of this study is that it was conducted with a relatively small number of empirical case studies. This is mainly due to time constraints, considering the large number of factors studied in each empirical case. However, the limited number of case studies in this research does not impact the meaningfulness of the results. This is because the purpose of this study was just to demonstrate the applicability of the model created in the study, as a means to provide answers to the research inquiries. This required a focus on the thorough study of the VE approaches, in order to develop an appropriate theoretical framework and apply it empirically. With this in mind, the three empirical cases studied in this project can be considered the minimum requirement for achieving the above goals. In the three empirical cases of this study, each VE approach is identified in the design of a G4C, while many critical moral issues get refined and

[119] Hence, I do not presuppose that the development of critical thinking is better than the imposition of values, as also I am also very careful with terms such as "best practices", or "unethical design".

meaningful conclusions are drawn regarding VE and game design. These findings admittedly, cannot be extrapolated to all G4Cs, but provide the basis for a more systematic investigation and analysis of G4Cs, as well as some solid ground for a more conscientious experimentation with the analysis and the design of games for moral education.

Thus, a natural progression of this work is the empirical study of a larger number of G4Cs, based on the analysis model for moral education produced in this study. As for the design patterns created in this study, they could also be implemented for research purposes per se, followed optimally by a parallel survey on the moral and learning impact on players during play as well as in their real lives after the game. Knowledge generated could be included into existing patterns, or it could also prescribe the formation of new patterns to be included in the existing library.

Moreover, alternative VE approaches could be studied, using the structure of the VEGA Model. This extended research could open the way to the identification of more design approaches and techniques, as well as an improved assessment of G4Cs.

Another source of uncertainty is the question of the "transferability" of game values to real-life behaviors. That is to say, how players' moral learning from a virtual world can be transferred to the real-world environment, as moral decision-making appears to be highly contextual. The main weakness is that the scarce research that currently exists does not demonstrate that playing a game with a prosocial message reliably leads players to a prosocial response. The problem of transferability is common in the field of pedagogical game design for ethics; "We need empirical research to consider how the values and principles embodied within a particular game do (or do not) influence participants' beliefs about those same values and principles in real-world contexts. Such research will be crucial for understanding the extent to which any moral learning that happens within games (..) transfers out of the gaming context into actual behavior" (Koo & Seider, 2010a, p. 24).

In general, while several G4Cs have been developed, the field of serious games stresses a lack of scientific tools for the investigation of the real effectiveness of the various types of serious games. The efficacy of games to support moral education and the development of relevant skills has only begun to be empirically investigated (Schrier, 2017; Simkins & Steinkeuhler, 2008). This study has attempted to consider some contextual factors that might be relevant to the VE of players. Yet, the findings need to be interpreted with caution, as they might only surmise the actual impact on the real players' morality. For

performing extensive user tests, the research should focus on the "definition of metrics and evaluation tools (in particular concerning the tracking of the actual learning progress) to be employed for an objective assessment of games" (Bellotti et al., 2010, p. 32) The results of this study could facilitate the assessment of moral learning through G4Cs,by setting moral/educational requirements of each game design approach, as well as by raising sensitive issues regarding possible biases, misinterpretations, implications of particular design elements, or common moral risks of each approach. This knowledge could be helpful for any sociological, cognitive or technological research on the effectiveness of G4Cs.

In the field of serious gaming, particular areas are also recommended for future research. Affective learning is an interesting area for investigation, as emotions play a key role in player experience, and as this study has illustrated, values and VE, are highly associated with emotions, more particularly with empathy, care and feelings of justice. Enhancing such emotions in players is a subject studied by several authors[120] and serious games appear to have good potential to support affective learning. Yet, several questions remain unanswered. More precisely, further work is required to focus on recognition of players' emotions, as well as on the consequent creation of emotional experiences able to motivate moral thinking and action. These are the main perspectives from which computational affective models are relevant for game development (Hudlicka, 2009). More precisely, these computational affective models are either mechanism-based affective models of the players[121] for recognizing and interpreting players' emotions, or models for enabling game characters to generate appropriate and more 'realistic' affective behavior in real time. Adding adaptivity, personalization and believable agents (again, as before for intelligent learning) contributes to an increased sense of player engagement. The insights gained from this study may be of assistance to the research on

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[120] as e.g. Belman & Flanagan, 2009; Blot, 2017; Dormann & Biddle, 2008; Koo & Seider, 2010b; Murphy & Zagal, 2011; Sevillano, Aragones, & Schultz, 2007; Wen-Hao & Tettegah, 2014

[121] "Affective user models are representational structures that store information about the player's affective profile. This includes information about specific emotions experienced, their triggers (e.g., gameplay situations and interactions), and their expressive and behavioral manifestations (defined in terms relevant for the available sensors and monitoring). Affective user models play a critical role in affect-adaptive gaming, supporting both emotion recognition, and the use of appropriate affect-adaptive strategy by the game system" (Hudlicka, 2009).

how affective learning can be applied in G4Cs for creating more dynamic moral experiences and challenging players' emotions to achieve the game's educational objectives.

In future research endeavors, several other significant aspects could be investigated in more detail, ranging from the development of particular skills, such as collaboration[122], or critical thinking[123] to challenging social power imbalances by creating anti-oppressive games[124]. Another interesting challenge arises from the "huge potential for serious games within geography", or, in other words, the synergies between geography, GIScience and serious gaming (Ashfield, Jarvis, & Kaduk, 2010, p.74). As G4Cs aim at fostering learning regarding real-world issues, associating knowledge with landmarks in an environment can be potentially advantageous.

This study could potentially also inspire future research in the scientific field of human-computer interaction (HCI). The HCI should be designed to maximize the expected benefits for the users. In the case of G4Cs this would be considered to be a fun and immersive experience that makes players reflect on particular realistic moral issues or persuades them to change their beliefs or take action in real life. An important conclusion though, that the future scholarship on HCI should bear in mind, is that "creating serious games with player immersion as the single driving design goal is an imprecise method for targeting specific learning objectives" (McLaughlin et al., 2010, p. 137). Hence, although VR is very promising in achieving immersivity, the educational objectives of G4Cs, which are related to real-life problems and behaviors, require that the input and output modalities correspond closely with reality. This was also a challenge for the design of *Epilogi in Crisis*. Further interesting issues concerning the HCI and the design of G4Cs would be usability (Bellotti, Berta, Gloria, & Primavera, 2009) in order to favor and induce moral learning, and accessibility (Torrente, del Blanco, Moreno-Ger, Martínez-Ortiz, & Fernández-Manjón, 2009), whose relevance for moral education and social awareness is apparent. While some game scholars have also introduced the concept of universally accessible games (Grammenos, Savidis, & Stephanidis, 2009).

Deepening the analysis of all the above issues is key to strengthening the foundations of G4Cs research, in order to integrate best practices and tackle hot topics, controversial

[122] Angehrn, Maxwell, Luccini, & Rajola, 2009; Connolly, Boyle, Stansfield, & Hainey, 2007

[123] Schrier, 2011; Simkins & Steinkeuhler, 2008; Zagal, 2011

[124] Frasca, 2001; Gunraj, Ruiz, & York, 2011

points and promising lines of research. What is then required for conducting research on any of the domains mentioned above is performing more extensive case studies. This is a necessity highlighted overall in the literature of serious games (Bellotti, Berta, De Gloria, & Primavera, 2009; Iacovides, 2009; Pannese & Carlesi, 2007; Rebolledo-Mendez, Avramides, et al., 2009). Particularly in the case of games for increasing awareness and supporting players in developing an informed opinion on real socio-political problems, the design/analysis/assessment methods can only be improved by continuous academic research and parallel empirical studies that incorporate strong pedagogical components. The new findings from empirical studies could then be integrated to the VEGA model or to the existing library of design patterns for G4Cs. In order to have more valid and useful outcomes, it is necessary that future endeavors consider all the stakeholders involved in the design of G4Cs (players, educators, families, researchers, developers) and the whole path from research to market and vice-versa. Further, it is suggested to have "a closer collaboration between developers and academic partners so that Serious Games can be endowed with strategies, feedback and pedagogies and the potential of commercially available Serious Games to attract large number of players might be exploited fully" (Rebolledo-Mendez, Avramides, et al., 2009). However, it is also important to note a possible risk that many game scholars have been vocal about. This is the risk of "academizing" games, leading to creating games "educationally sound as learning tools but dismally stunted as games" (Van Eck, 2014, p. 3). Attention therefore needs to be paid on the combination of moral education and entertainment, on finding "the synergy between pedagogy and engagement" (Van Eck, 2014, p. 3).

Finally, this study on how games can teach values, could lay the groundwork for enriching our understanding on how digital media in general can communicate values to users. In recent years, the use of digital media for motivating activism, and facilitating the exchange of information and views on real-world problems not covered by the mainstream press, has increased radically. While the cultural significance of social media, as a medium to mobilize people for a cause, is also expanding. Facebook political groups, Twitter campaigns, crowdfunding platforms (e.g. Kickstarter, Indiegogo), online petition platforms (e.g. Change.org), podcasts and multiple series of YouTube videos and documentaries serve daily the purpose of "spreading the word", while also shaping public dialogue (Joyce, 2010; Lievrouw, 2011; Mutsvairo et al., 2016; Postill, 2017; Vlavo, 2017). These digital social-awareness campaigns referred to mainly as "digital activism", convey values in multiple ways.

In relation to this, this study raises the following questions: Do these digital activist media encourage users to register as “fans” of political claims, or to think critically, by reflecting on contrasting arguments, discussing complex dilemmas, and searching, or providing further information? If it is propaganda, is it for universal social good? Are users allowed to express their personal views freely, even if marginal, or is some type of control applied? Are users motivated to be creative based on their own values, collaborate and build communities for social practice or political action? Are there perhaps particular biases, implications for marginalized groups, or any clear power structure? All these aspects could be indicators of the inherent ethics of digital-based campaigns for social awareness, and they are in need for further investigation. At the same time, it is also of great interest to explore the practices used by these new communication technologies for achieving social awareness, and the possible risks of particular design implications of contemporary digital activism.

Summary

This project is an exploratory research examining whether and how the traditional field of VE can inform the design and analysis of *games for change* (G4Cs). The design of G4Cs involves a series of ethical decisions, as it promotes ethical values and addresses diverse moral issues. However, these moral concerns are not yet adequately studied. *Values education* (VE) on the other hand, has a long history in addressing moral education, involving multiple approaches and a considerable practice in schools, in a classroom context. The *research questions* addressed by this study are: whether the field of VE can a) provide a better understanding of the design of G4C, and b) provide helpful insights for the conscientious design of G4Cs and the consistent moral education of players.

In the first part of the research project, a theoretical model has been developed - called *VEGA* (Values Education for Game Analysis). The VEGA model derives from the thematic analysis of three major theoretical approaches of VE – i.e. *character education, moral development, and values clarification,* with the aim to comprise all the fundamental elements that constitute each approach. Each of these movements has its own objectives, its own educational practices, and has received an ample and multidisciplinary critique. The VEGA model is developed with the purpose to analyze games teaching values; it has no relation yet to games and is not empirically grounded.

The empirical part of the thesis consists of the analyses of three G4Cs using the VEGA model. These case studies demonstrate the applicability of the VEGA model as a tool for game analysis focusing on players' moral education. As the empirical results indicate, the VEGA model helps to disclose and categorize significant moral aspects of the games that otherwise are concealed. It is concluded that the VEGA model, theoretically rooted in the traditional approaches for moral learning, facilitates the understanding of moral education designed in games (research question a). Furthermore, it provides moral guidance for the conscientious design of G4Cs and towards the consistent moral education of players. This is done by identifying significant factors for designing moral education in games, as well as by mapping three distinct game design approaches for moral education, each with distinct moral objectives and strategies (research question b).

However, the VEGA model is mainly focused on the analysis of existing games than the design of new games, and although the content of the model is meaningful for the design of G4Cs, the model itself is too complex to facilitate the actual process of game design. This is why, in the last part of the project, the VEGA model is used as a source for developing a clearly design-oriented tool; game design patterns for teaching values. Mapping diverse game design options for moral education could facilitate designers to take more informed and conscientious design decisions and find solutions for common design problems, by considering the moral implications and some significant ethical concerns.

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