



CATÓLICA  
FACULDADE DE EDUCAÇÃO E PSICOLOGIA

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PORTO

*CREATING ENLIGHTENED HEROES:  
PROMOTING EMPATHY IN 9<sup>th</sup> GRADE  
STUDENTS*

Dissertation presented to Universidade Católica Portuguesa  
in order to obtain the degree of Master in Psychology

- Major in Psychology of Justice and Deviant Behaviour -

*Inês Marques Guedes Nogueira*

Porto, July 2019



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Under the orientation of

Ph.D. Mariana Barbosa and Ph.D. Luísa Ribeiro

Porto, July 2019

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*“We are all heroes struggling to accomplish our adventure. As human beings, we engage in a series of struggles to develop as individuals and to find our place in society. Beyond that, we long for wisdom: We want to understand the universe and the significance of it.”*

– Eva Thury and Margaret Devinney

## Index

Introduction .....	1
Theoretical Background .....	2
The Stanford Prison Experiment, Heroism and the Heroic Imagination.....	2
The Bystander Effect .....	4
Mindfulness .....	6
The Relationship Between Heroism and Mindfulness .....	9
Method .....	10
Objectives .....	10
The Programme .....	11
Participants .....	12
Materials .....	13
Socio-Demographic Questionnaire .....	13
The Creating Enlightened Heroes Diary .....	13
Feedback Questions .....	13
Individual Interviews with the Students .....	13
Procedure .....	14
Data Collection .....	14
Data Analysis .....	14
Presentation and Discussion of Results.....	15
Feedback of the Programme .....	15
Knowledge Acquired After the Programme .....	16
Intrinsic Experience Regarding the Programme.....	18
Intrinsic Experience Throughout the CEH Sessions .....	20
Changes in Interpersonal Relationships .....	20
Parents.....	20
Siblings .....	22

Friends.....	22
Colleagues and Others in Society .....	23
School Life .....	24
Attention and Concentration .....	24
Test-Related Anxiety .....	24
Conclusion.....	25
References .....	27
Appendix .....	1

## Appendix Index

Appendix I - Session Contents

Appendix II – Individual Interview Script

Appendix III – Category System

Appendix IV – How many participants contemplated after each session

Appendix V – How many participants reported experiences throughout the sessions

## Abbreviations Index

HIP – Heroic Imagination Project

CEH – Creating Enlightened Heroes

EC – Empathic Concern

PT – Perspective Taking

SPE – Stanford Prison Experiment

CEN – Central Executive Network

DMN – Default Mode Network

SN – Salience Network

MBSR - Mindfulness-Based Stress Reduction

Resumo: De acordo com a literatura, os resultados obtidos pela prática de Mindfulness são importantes e complementares às temáticas desenvolvidas pelo Heroic Imagination Project (HIP). Assim, o objetivo deste estudo foi criar e implementar um novo programa que incorporasse componentes conjuntas de Mindfulness e HIP. Adicionalmente, foi definido ainda o objetivo de explorar as perspectivas e experiências dos participantes assim como mudanças ao nível das suas relações e quanto à sua vida escolar.

Assim, cinco alunas do 9.º ano de uma escola voluntariaram-se para participar no programa “Creating Enlightened Heroes”, com a duração de nove semanas. Ao longo das sessões foi-lhes pedido que preenchessem um diário de bordo. No final do programa, responderam a duas questões abertas dando a sua opinião sobre este e também foram feitas entrevistas individuais. A informação recolhida foi depois transcrita e codificada utilizando o Nvivo 11.

As participantes reportaram uma perceção geral positiva quanto ao programa, relatando melhorias nas suas relações familiares, com os pares e com outros na sociedade. Foi possível observar que o programa ajudou e promoveu comportamentos pró-sociais e auxiliou a sua empatia. Pôde-se observar uma melhoria na ansiedade e atenção e concentração tanto no dia-a-dia das participantes como relativamente ao contexto escolar.

Palavras-chave: Heroic Imagination Project, Heroísmo, Mindfulness, Empatia

Abstract: According to the existing literature, the outcomes of practicing Mindfulness are important and can aid the topics taught by the Heroic Imagination Project's (HIP) curriculum. Therefore, the objective established was to create and implement a new programme that incorporated both Mindfulness and HIP sessions. Additionally, our study aimed to explore participants' perspectives and experiences, their changes regarding their closest relationships, as well as their school life.

Thus, five participants from Form 9 volunteered to participate in the "Creating Enlightened Heroes" nine-week programme. Throughout the sessions they filled in a diary and, at the end of the programme, were asked to answer two feedback questions. Furthermore, they were then invited to participate in individual interviews. This data was then transcribed and processed utilizing Nvivo 11.

The participants reported a positive overall perspective regarding the programme, mentioning several improvements in their relationships regarding their family, peers and with others in society. Moreover, it was described by the participants that the programme helped and promoted prosocial behaviours and aided them regarding their empathy. Finally, regarding participants' anxiety, attention and concentration in their daily lives as well at school, improvements were observed.

Key words: Heroic Imagination Project, Heroism, Mindfulness, Empathy

## Introduction

The Heroic Imagination Project (HIP) was founded by Philip Zimbardo, renowned psychology Professor Emeritus of the University of Stanford, with the objective of redefining the concept of heroism, updating it to the present, based on the premise that anyone can become a hero at any moment in their lives. In this way, heroism is no more than a set of prosocial habits that can be modelled, promoted and learned, that may not only help in dealing with ambiguous and emergency situations, but also in establishing and reaching goals that promote the well-being of others (Zimbardo, 2019).

-The HIP's main objective is to develop people's commitment to the construction and maintenance of transparent and open cultures, that promote ethical behaviour; to understand the underlying psychological processes (for example: blind obedience, conformity and the bystander effect) that lead not only to difficult social situations but also unwanted behaviour; as well as the capacity to analyse and react efficiently to social pressure. Therefore, promoting the use of these tools in people's everyday life, leads them to react to negative situations and turn them into something positive (Zimbardo, 2019).

According to Jones (2017), the research conducted on Mindfulness has shown that its practice tackles several of the heroic traits set by Franco, Blau, and Zimbardo (2011). A selfless attitude, which aims at helping others, improvements in empathy, perception and attention are some of the reported results from practicing Mindfulness – all of which can then lead to an increase in pro-social behaviours (Luberto et al., 2018). Subsequently, the author then proceeds to debate if heroism is something temporary or if it persists over time, postulating that this relationship could help build a more predictable and lasting hero (Jones, 2017).

With this hypothesis in mind, and due to the fact that there is still little research about heroism (Blau, Franco, & Zimbardo, 2009; P. Zimbardo, 2004), we decided to create a new programme (the Creating Enlightened Heroes) based on the HIP curriculum with an added Mindfulness component. We also aimed at exploring participants' perspectives and experiences about and throughout the programme and perceived changes in their relationships with their family members, peers and others in society.

After this brief introduction, we will then follow up with the theoretical background to our study, which encompasses the Stanford Prison Experiment, Heroism, the Heroic Imagination, the Bystander Effect, Mindfulness and its' relationship with Heroism. Right after, we will

proceed with the study's method where we will discuss the objectives, the programme, the participants, the materials and procedure regarding data collection and data analysis. Finally, we will present and discuss the results from the data collected and conclude by discussing strengths, limitations and future research suggestions.

## Theoretical Background

### The Stanford Prison Experiment, Heroism and the Heroic Imagination

In the 70's, Philip Zimbardo conducted a study that replicated a prison environment in the University of Stanford with the main objective of researching how readily participants, who were randomly assigned to guard or prisoner roles, would conform to these (Zimbardo, 2007). The goal was to run the experiment for fifteen full days but ended on the sixth. What they observed was a development of hostile and controlling behaviour from the guards, with the most aggressive members of this group becoming leaders and models towards the rest. The behaviour of this group started immediately and worsened as they interacted with the prisoners, making that level of hostility the new baseline. For example: by the end of the first day, almost all of the basic rights of the prisoners (such as drinking water, eating and sleeping conditions) became privileges and only available to the well behaved and obedient prisoners (Haney, Banks, & Zimbardo, 1973) and by the end of the experiment the guards would even submit them to sexual humiliation acts (Zimbardo, 2007). At the end of the sixth day, out of the twelve "prisoners", five had to withdraw from the experiment due to emotional depression, acute anxiety, crying, rage and psychosomatic symptoms. Of the remainder, when asked, only two participants stated that they would not relinquish money for parole (Haney et al., 1973). As Zimbardo describes in his book "The Lucifer Effect" (2007), if it had not been for Christina Zimbardo's intervention by the fifth night, this experiment would most likely have continued until the end of the fifteen days. After a long discussion, Zimbardo realizes that it was not just the participants who submitted to their roles, but he himself had internalized some beliefs about the prison environment that "(...) distance them from their own humanitarian values." (Zimbardo, 2007, p. 171).

The results of this experiment demonstrate the influence of situational variables in individual behaviour: roles that were randomly assigned were accepted and incorporated by the study participants, who adopted behaviours contrary to their moral standards so that they could meet the expectations created by the new roles (Haney et al., 1973; Zimbardo, 2007). These results reveal that situational forces can influence and even pervert individual dispositions. The

Stanford Prison Experiment (SPE) is a good example of Arendt's concept of Banality of Evil, according to which ordinary people, under certain conditions and under specific social pressures, may commit unimaginable evil acts (Blau, Franco, & Zimbardo, 2009; Zimbardo, 2007, p. 288). Thus, evil can be defined as the use of power to cause harm to others and can only be fully understood when analysed and framed in the personal, situational and systemic factors that involve the individual and the act itself or inaction, since, for Zimbardo, evil is essentially practised by direct action or inaction (that is, they did not act, or acted incorrectly when the situation required significant action) (Zimbardo, 2007).

With this Arendtian idea of banality of Evil, Franco and Zimbardo created the opposite concept, the Banality of Heroism, that suggests that everyone has the potential to become a hero and that they are just waiting for the opportunity to act (Z. E. Franco & Zimbardo, 2006). Another idea that has been introduced by the authors is that it is possible to change people's mentalities so that they help others, have compassion for others and develop confidence in their ability to act heroically (Z. E. Franco & Zimbardo, 2006). This concept of heroic imagination suggest that an individual who has already not only considered scenarios that require a heroic action (and the personal consequences thereof), but has also already anticipated the potential obstacles that might hinder such action, will be more likely to act heroically when the opportunity presents itself (Blau et al., 2009). There are some measures that can stimulate this heroic imagination such as the development of a "discontinuity detector" (that is, the awareness and evaluation of everyday situations in order to quickly detect emergency situations); learn how to maintain themselves mindful and evaluating carefully each situation they are in, so that they never miss the opportunity to help; a change of perspective of their actions that involves the past, present and future; learn to not fear interpersonal conflicts and to stand up for their values and finally, to avoid rationalizing their inaction, knowing how to overcome it even if they know the consequences (both personal and interpersonal) that are associated with the action (Z. E. Franco & Zimbardo, 2006).

In spite of this information, there is not a consensual definition of heroism, as it is stated in Franco et al. (2016). Therefore, some authors define this concept as the acts that were practiced by individuals who decided to risk their own physical integrity with the well-being of others in mind, even when they were conscious that they could suffer serious consequences, including death (Becker & Eagly, 2004). Franco, Blau, and Zimbardo (2011) further divided these physical risks into two categories: martial heroism – when a person acts in a heroic fashion and

are part of the formal social control structures – and civil heroism – when this heroic deed is conducted by a person from common population.

However, there isn't only physical heroism, there is also the social kind, where one acts based on their values. In this case, the consequences can include loss of credibility, financial instability, prison, torture, ostracization, lowering of their social status, the increase in danger to one's family members and death (Franco et al., 2011; Franco & Zimbardo, 2006). It is of importance to mention as well that the heroic act is characterized by society (with witnesses and people who knew of the incident through others) and not by the person who conducted the deed, that usually sees this as the right thing to do (Franco, 2016). Yet, heroism is different from altruism (as the latter involves less risk than the first), from prosocial behaviours and risk behaviour (Franco et al., 2011).

### The Bystander Effect

There are, however, various obstacles that stand in the way of heroism. Since the murder of Kitty Genovese in 1964, social psychology has been investigating what makes someone intervene in dangerous situations (Piliavin, Rodin, & Piliavin, 1969). When this particular case gained relevance, several explanations were proposed for the witnesses' inaction, from moral decadence to the inherent dehumanization of the urban environment, alienation, anomie and even existential despair (Darley & Latané, 1968). However, it was proven that those explanations had little or no validity: as it was not the individual or cultural factors that influenced the bystanders' responses, but rather the number of people that had gathered in the spot; therefore, it was the situational factors of the immediate social environment that influenced their actions (Darley & Latané, 1968; Latané & Rodin, 1969). This is called the bystander effect, which has been observed in four main contexts: from situations where there was an absence of an emergency, to scenarios whether the victim or the bystander were in danger, to when there was a villain-type of character in the situation (Fischer et al., 2011).

According to Fischer et al. (2011), the inaction in Kitty Genovese's case was mainly due to three distinct psychological processes. Diffusion of responsibility explains how in a situation with many bystanders, the responsibility is divided among them, resulting in a delay in helping the person in need or not acting at all. Concerning the evaluation apprehension, this argues that people are afraid that when they intervene they will make mistakes or act incorrectly, which then results in inaction. Finally, pluralist ignorance is when presented with an ambiguous situation, people tend to rely on others' reactions to figure out if they are facing an emergency

or not. It is thus this confluence and synergism of these mechanisms that is mainly responsible for the inaction of the passers-by (Darley & Latané, 1968; Latané & Darley, 1970 cit. in Fischer et al. 2011). However, the literature is not yet consensual about what are the relevant processes that result in the bystander effect, for example in Latané and Nida (1981) the authors mention diffusion of responsibility, audience inhibition and social influence as the main processes that, although similar to the above mentioned, differ in some aspects. According to Latané and Nida (1981) there are seven main characteristics regarding bystander situations: the ambiguity of the situation, the attributes of the precipitating incident, where the experiment was set (whether in the laboratory or in the field), the participant bystanders' attributes, the victim's attributes, the other bystander's attributes (such as friends or strangers like in the study of Latané and Rodin (1969)) and finally if there was communication between bystanders.

For example, the study of Piliavin, Rodin, and Piliavin (1969) was one of the first field studies where they researched about this effect, demonstrating that there is a higher chance of people helping a victim who is sick than when they look drunk. They also found out that the ethnicity of the helper had little effect, unless the victim was drunk, where there was a higher probability of people from the same ethnic group helping. In the same study, they also verified that, the longer it took for someone to help the victim, more people would leave the emergency area, with men tending to help more than the women.

However, in this study they could not demonstrate the effect of diffusion of responsibility because even with many people observing the same situation, the help frequency was high and the time that it took to help was short. Yet, the lack of evidence of the process can be explained by the results obtained by Fischer et al. (2011) who demonstrated that there was more diffusion of responsibility in laboratory contexts than in field studies.

Other types of contexts were studied more recently relating to the bystander effect, like for example: new technological contexts, intervention in dangerous emergencies, different victim's ethnicities, social control behaviour, different levels of ambiguity of the situation, the effect of group cohesiveness, bystanders with different levels of competencies, whether the bystanders were trained or not, the presence of reminders of disinhibition on bystander's interventions, among others (Fischer et al., 2011). Fischer et al. (2011) discovered that the bystander effect did not occur in dangerous situations, but the same could not be said about non-dangerous situations.

Latané and Darley in 1970 developed a model of psychological processes to explain a bystander's intervention: First, it is necessary to detect the situation, followed by a correct identification of the situation as an emergency. After this, feelings of personal responsibility should emerge, accompanied by the belief that the individual has the necessary tools to intervene, which would lead to the decision to help the other person (Fischer et al., 2011).

Regarding previous interventions done in schools, the Heroic Imagination Project Portugal team last year conducted its' first pilot study and evaluated its' efficacy with positive results (Santo, 2018).

### Mindfulness

In the classical Buddhist literature, mindfulness is associated with the person's ethical development. The practice of compassion, innocence, kindness and patience is designed not only to protect the individual but also the people around them, where their attitudes reverberate and influence (Gilpin, 2008). According to this traditional view, suffering is the result of emotional instability that is the consequence of an egocentric and individualist train of thought. Therefore, reaching lucid awareness is the way to end psychological suffering, that is, when the person reaches a sustainable emotional stability (Gethin, 2001).

From the point of view of modern western psychology, the goal of mindfulness is to develop a positive relationship between the person and others, in order to allow the individual to overcome his/her needs, enhancing pro-social characteristics, developing their meta-awareness and the capacity to self-regulate (Jones, 2017; Tacón, Caldera, & Ronaghan, 2004). An example would be the definition that mindfulness is "(...) the awareness that emerges by purposely paying attention to the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). According to this point of view, mindfulness is a specific type of attention focus with two unique characteristics that are closely related: the self-regulation of attention, bringing it to the present moment (as a state or type of mental capacity) and the orientation towards curiosity, openness and acceptance (a personality trait) (Bishop et al., 2004; Kabat-Zinn, 2003). It is worth mentioning that later Shapiro, Carlson, Astin, and Freedman (2006) add the component of intention to this model. The latter is the personal point of view, what makes them practise mindfulness. It is also important to mention that this intention is changeable as we can see in Shapiro's study (1992): as participants kept practising their meditation, their intentions changed from self-regulation to self-exploration and finally to self-liberation (the experience of transcending). However, it is important to keep in mind that

this point of view of mindfulness is simply an interpretation, a translation of concepts (that was adapted from Buddhist ethics to western psychology), and many authors have presented their own definitions such as Langer e Moldoveanu (2000). In fact, the literature has not yet reached a consensus of a single definition and operationalization of mindfulness (Chiesa, 2013; Jones, 2017).

Mindfulness as a resource into clinical practice and research was introduced by Jon Kabat-Zinn in 1979 with the programme Mindfulness-Based Stress Reduction (MBSR). This course consists of 8 weekly sessions of around 2 hours and a half plus a whole day practicing mindfulness. It is also recommended that participants practise some exercises at home, for around 45 minutes. This program also includes psycho-education while simultaneously bringing certain attitudes to our attention (for example: not judging, a beginner's mind, trust, non-striving, acceptance, letting go and patience) (Kabat-Zinn, 2003; Zenner, Herrnleben-Kurz, & Walach, 2014).

Regarding mindfulness' neuronal component, it is based on Default Mode Network (DMN) which is responsible for mind-wandering, interacting with the Salience Network (SN) and the Central Executive Network (CEN), the SN being responsible for the activation switch between the DMN and the CEN (Goulden et al., 2014; Jones, 2017). The DMN is composed of the ventro-medial pre-frontal cortex, the dorso-lateral pre-frontal cortex, the posterior cingulate cortex, the posterior-inferior lobule, the temporal-lateral cortex and hippocampal formation (Buckner, Andrews-Hanna, & Schacter, 2008; Smallwood, Brown, Baird, & Schooler, 2012). It is worth mentioning that the areas that are responsible for the processing of perceptive and sensorial information are far less activated when we are mind-wandering and that these areas and the ones responsible for internal cognitive processing are antagonists (Hasenkamp & Barsalou, 2012; Smallwood et al., 2012). Brewer et al. (2011) reported that the high levels of activation in the DMN are associated with attention deficit and hyperactivity disorder, anxiety, depression and negative affect.

Bearing all this in mind, according to Jones (2017) we should see the effect of mindfulness in the DMN in two ways: we should expect a reduction in mind-wandering in people who practise it, accompanied by an increase in performance of the sensorial, cognitive and perceptual functioning.

Studies report that, compared with control groups, participants who meditate have a smaller brain activation of the DMN. There was a reduction in mind-wandering and reactivity to

distractions, accompanied by a general improvement in attentional regulation, executive monitoring, working memory, conflict monitoring, cognitive control and alert related processes (Anderson, Lau, Segal, & Bishop, 2007; Brewer et al., 2011; Jha, Krompinger, & Baime, 2007; Vago & Nakamura, 2011). It was also found that when the participants practised meditation they would improve perceptual clarity, primary sensory awareness, auditive reception and a better distinction of the form and size of objects (Cahn, Delorme, & Polich, 2010, 2013; Srinivasan & Baijal, 2007; Telles, Balkrishna, & Singh, 2012).

Mindfulness Based Interventions (MBI) have also shown results regarding promotion of health and potentially preventing health issues such as: stress reduction, strengthening the immune response, improving well-being, the promotion of personal development (for example: self-compassion, empathy and perspective taking), improving attentional capacity and it's temporal window of attention (Birnie, Speca, & Carlson, 2010; Chiesa & Serretti, 2009; Davidson et al., 2003; Eberth & Sedlmeier, 2012; Jha et al., 2007; Sauer et al., 2012; Shapiro, Schwartz, & Bonner, 1998; Tang et al., 2007).

According to Shapiro et al. (2014), the development of mindfulness characteristics and its promotion in the early stages of life provides various long-term benefits, including emotional regulation, improving their relationship with theirs' and others' feelings and also improving executive functioning. It also provides improvements in children's mind wandering, empathy and compassion, ethical sensitivity, creativity and problem-solving capacities (Mind and Life Education Research Network (MLERN), 2012). Also concerning emotion regulation (an important skill set for children and adolescent's social development) it is comprised of many different skills, such as, empathy, social competence when interacting with others, and keeping motivation and attention when faced with emotional highs and lows (Nancy Eisenberg, Fabes, Guthrie, & Reiser, 2002; Ramani, Brownell, & Campbell, 2010), which can be improved as a whole by the practice of contemplation as studies show (Davidson, 2010; Ortner, Kilner, & Zelazo, 2007).

These contemplative exercises help the development of emotional regulation by changing the networks responsible for its' automatic and conscious aspects. As such, regarding the automatic responses, these types of exercises promote a more present-moment awareness to the experiences that are occurring in a non-judgemental way, resulting in a more balanced approach to the day-to-day activities which, in turn, lead to events capturing one's attention more often and causing an automatic emotional reaction. Furthermore, by encouraging children and

adolescents to reflect on their thoughts and emotions, the practice of contemplation may also provide them with a better opportunity to use their top-down control skills to think about the various responses they can have to a certain situation. This, in turn, will make them more flexible and adaptive when an emotional situation occurs. These exercises employ the adolescents' pre-frontal cortex networks when an emotion-eliciting event occurs, which in turn strengthens the neural connections between this area and the limbic system – ultimately leading to the strengthening of the neural circuits that aid in the child's emotional regulation (Shapiro et al., 2014).

Regarding one's perspective taking, this refers to the various skills such as self-awareness of their cognitive processes, theory of mind, social perspective and the flexibility to switch our perspective with others'. Keeping this in mind, we can say that this skill is important for one's development of empathy, compassion and functional interpersonal skills (Shapiro et al., 2014; Wellman & Liu, 2004). Bearing this in mind, relatively few research has been conducted regarding contemplative practices' effects on perspective taking in children or adolescents.

In a meta-analysis, Zenner, Herrnleben-Kurz, and Walach (2014) found that MBIs aimed at children and youths are capable of increasing cognitive capacity (attending and learning) to nearly one standard deviation, and with an overall effect size of  $g = 0.40$ . They have also found that this effect becomes stronger if there are more training sessions and they are given practice exercises to take home. Furthermore, the authors emphasize that there is still a lot of heterogeneity regarding key concepts and definitions amongst the relatively sparse literature on the subject.

### The Relationship Between Heroism and Mindfulness

In the study of Jones (2017), the author demonstrates that there are considerable similarities between mindfulness and heroism. Mindfulness emphasizes the well-being of everyone, advocating the dissolving of ego grasping that should be accompanied by the daily practise of altruistic sacrifice towards people and the world. In heroism there is a type of quest, a risk or sacrifice (whether they are short or long term), where one can choose to take an active or passive role. In the same study the author identifies several results from practising mindfulness that improve important characteristics of a hero, such as focused attention, awareness of the present, spontaneous kindness, better attentional functioning, increased cognitive control, more efficient conflict monitoring, decreased alert response, the perception of ego grasping as illusory, having

no sense of self, improved primary sensory awareness and finally an increase in empathy (Jones, 2017).

Luberto et al.'s (2018) meta-analysis supports the efficacy of MBIs when it comes to the increase of empathy, compassion and pro-social behaviours. These interventions showed great improvements in at least one pro-social behaviours when compared with control groups. They also found out that meditation training had a small-medium significant effect on pro-social outcomes (with a higher number when there was an active control group).

This increase in empathy is corroborated by many studies (Beitel, Ferrer, & Cecero, 2005; Berry et al., 2018; Dekeyser, Raes, Leijssen, Leysen, & Dewulf, 2008; Greason & Cashwell, 2009), proposing that participants, by practicing decentring (Shapiro et al., 2006), will be more aware of the present and therefore more aware of others' mental states. On the other hand, as the participants are more in tune with their emotional states, this makes them more understanding of others' emotions as well (Block-Lerner, Adair, Plumb, Rhatigan, & Orsillo, 2007). Regarding emotional mechanisms that are related to meditation that can lead to more prosocial outcomes are: an increased positive affect, a sense of a socio-emotional connection with others, a better mindfulness and self-compassion traits and a noticeable decrease in stress and negative affect (Ashar et al., 2016; Hutcherson, Seppala, & Gross, 2008; Kang, Gray, & Dovidio, 2014; Kok et al., 2013; Oman, Thoresen, & Hedberg, 2010; Shapiro et al., 1998; Wallmark, Safarzadeh, Daukantaite, & Maddux, 2013)

In the study of Lim and DeSteno (2016) the authors found that more empathy can lead to more compassion which in turn will lead to greater pro-social behaviours. The study by Berry et al. (2018) also showed that compassion (empathic concern) was a mediator between mindfulness and pro-social helping behaviours towards strangers, thus suggesting that mindfulness promotes this kind of behaviour, helping to overcome the bystander effect. These results are also corroborated by the existing literature (Ashar et al., 2016; Hutcherson et al., 2008; Kang et al., 2014; Kok et al., 2013; Shapiro et al., 1998).

## Method

### Objectives

Bearing in mind all the information described and reported above, this project will have an explorative nature that will utilize qualitative methodology. This will be utilized in an evaluative and explorative matter as it can help us understand the effects of a programme and

how they manifest on participants (Ritchie & Lewis, 2003). This study intended to create and to implement a new programme for high school students that incorporated mindfulness techniques into the HIP curriculum, called Creating Enlightened Heroes (CEH). We also aimed to explore their perspectives of various contexts such as their family and school life, as well as regarding and throughout the CEH sessions.

These were the following specific objectives defined:

1. Analyse participants' feedback of the programme;
2. Analyse participants' knowledge after going through CEH;
3. Analyse participants' intrinsic experience throughout the programme's sessions;
4. Analyse participants' intrinsic experience throughout the programme in general;
5. Analyse participants' perception regarding changes in their relationships towards others in society;
6. Analyse participants' perception regarding changes in their relationships towards their family members;
7. Analyse participants' perception regarding changes in their school life.

### The Programme

The Creating Enlightened Heroes programme was inspired by Jones (2017) and was comprised by nine sessions in total, five of which were dedicated to Mindfulness and three that were adapted from the original Portuguese Heroic Imagination Project programme (Santo, 2018). This programme lasted for nine weeks, ranging from the 28<sup>th</sup> of February of 2018 to the 23<sup>rd</sup> of May 2019, with each session being one hour long. The sessions alternated between Mindfulness and HIP contents; additionally, the Mindfulness portion of the curriculum was delivered by a trained professional and instructor for the program Still Quiet Place (Saltzman, 2016) while the HIP contents were given by the investigator. All the contents were given in English.

The first two sessions were primarily Mindfulness based, being introductory in nature, approaching the topic of mindfulness and its' benefits, as well as guiding the students in their first steps in meditation. The third and fourth sessions centered around the HIP curriculum, the third being an introduction to HIP and the start of the discussion on what a hero was, what was a bystander and the bystander effect, whereas the fourth session continued the discussion from the previous class, delving deeper into the bystander effect, the dangers of conformity and the discussion of the five obstacles that we could face that would prevent helping others. The fifth and sixth sessions were also Mindfulness based, approaching the topic of active listening and

the discussion of non-verbal communication during the former, whilst further expanding the previous subjects while handling the topic of non-violent communication on the latter. Session seven was the last HIP class, where we discussed the topic of discrimination and then tried to connect all the topics learned thus far. The eighth session was the last Mindfulness-based class, dealing with the concepts of gratitude, its relationship to empathy and Mindfulness, while introducing to students the loving-kind meditation. The ninth session had a conclusive nature, where both components merged, and we tried to establish a relationship between both with the participants. In Appendix I a table is provided, detailing the number and type of session, the objectives for each, the activities employed to reach certain goal, the suggested take home activity, finally, the number of present and absent participants.

Various interactive activities were employed, aimed to promote an active learning style whilst building upon the student's present knowledge. We also aimed to create a dialogue between the facilitator and participants, where the latter would be comfortable bringing their questions and opinions, which in turn shaped the contents of the sessions and discussions. Here the teacher's role was of a mediator, coach and guide, where we would give prompts (these being either verbal or through materials) to the participants and attempt to engage them in discussions. We also tried to find a balance between the students' interests and the session objectives (Olusegun, 2015).

### Participants

We decided to target the form nine student body of a private high school. The recruitment of participants was done by a 15-minute presentation during their Assembly period and, after that, a small reminder was made during form-time a week later. In total, five female students volunteered to participate. This resulted in a convenience method of sampling.

Therefore, we were able to recruit 5 participants in total with ages between 14 and 15 years old ( $M = 14.20$ ,  $SD = .45$ ). Three of the participants were Portuguese (60 %), one was American (20 %), one was Venezuelan (20 %). Regarding mother's education level, four answered that they had a bachelor's degree (80 %), one had a master's degree (20 %) ( $Mdn = 4$ ,  $IQR = 1$ ). As to parent's education level, one participant reported that their parents had finished form nine (20%), two concluded their bachelor's degree (40%) and two had their master's degree (40%) ( $Mdn = 4$ ,  $IQR = 2$ ). Participants were also asked if they had prior knowledge about either Mindfulness or Heroic Imagination Project. In regard to Mindfulness, four of the five participants (80%) reported knowing about mindfulness as opposed to one (20%) who said they

were unaware ( $Mo^3 = 1$ ) Regarding HIP, four out of five participants reported that they didn't know the project beforehand (80%) with one participant (20%) reporting she did and that she learned during "... The presentation" that we gave when recruiting participants ( $Mo^3 = 2$ ). We also asked participants if they had practiced Mindfulness before, where one (20%) said they did and the other four (80%) participants reported that they hadn't practiced before ( $Mo^3 = 2$ ).

## Materials

### *Socio-Demographic Questionnaire*

In this questionnaire, participants were asked about their age, their nationality, their gender, which form class they were in and both their parents' education level. They were then asked to answer about their awareness of the Heroic Imagination Project and mindfulness before the presentation about the programme. If the participants answered affirmatively they were then invited to answer where, when and how they learned about it. Finally, they were asked to answer if they had practised mindfulness before and if they answered affirmatively there would be a follow-up question asking them to state for how long they have been practising it for.

### *The Creating Enlightened Heroes Diary*

This diary was given in a booklet format to the participants at the end of each session. Here, the participants were encouraged to write freely about their experiences during the session (feelings, thoughts, lessons learned and personal changes they've noticed). To preserve their anonymity, they were asked to identify their diaries with the same code as their socio-demographic questionnaire.

### *Feedback Questions*

At the end of the of the programme we asked the participants to answer two questions regarding their opinion about the CEH. The first question was: "What did you like most about the Creating Enlightened Heroes programme?" and the second was: "Where do you think we can improve and how can we achieve this?". These were open ended questions to encourage participants to give as much information as possible.

### *Individual Interviews with the Students*

The script for the interviews was created based on the specific qualitative objectives. The dimensions explored with the participants were their feedback of the programme, their knowledge of the content taught both during the mindfulness sessions and the HIP component. Also included in the script were questions regarding the participants' intrinsic experience, their

relationships with society, their school life and relationship with their family. These individual interviews occurred two weeks after the CEH ended and they were aimed to last approximately 15 to 20 minutes. The detailed interview script is presented in Appendix II.

## Procedure

### *Data Collection*

Firstly, we established contact with the school to ascertain their interest in collaborating with this project and therefore granting us permission to implement the CEH programme. We were also allowed to give a small 15-minute presentation about our project during the form nine assembly to gather volunteer participants. A small reminder was then given to each class on the last day of registration and parents were also invited to a meeting so that we could discuss additional concerns that they might have had. The participants were then given an informed consent form to be signed by their parents, that being a requirement for participation. This informed consent addressed ethical concerns such as confidentiality and the right to withdraw at any point during the study.

In an initial moment of the study, the participants were asked to fill in a socio-demographic questionnaire a week prior to the beginning of the study. Following this, participants started CEH with its nine-week curriculum. At the end of each session, the participants were then invited to write on their Creating Enlightened Heroes Diary. After the CEH was over a feedback questionnaire was given so that the participants' opinion about the programme was recorded. To be able to match the responses from each participant in the different materials as well as to maintain confidentiality and anonymity of the participants, fake names were employed to track each individual: Maria, Carolina, Julie, Lucy and Marta. Two weeks after the end of CEH, we requested participants to partake in additional individual interviews.

### *Data Analysis*

We utilized IBM SPSS Statistics 25 to analyse the quantitative data from the socio-demographic questionnaire, we resorted to descriptive statistics, that Martins (2011) defines as “(...) a set of measures - of central tendency and dispersion - and graphic representations that allow us to describe a set of data concisely.” (p. 45).

The CEH diaries and the feedback questions' answers were transcribed from written text to digital text. Furthermore, the interviews, were recorded in audio format and posteriorly converted into text. We then utilized Nvivo 11 to process and analyse the data recorded.

The data analysis followed a semi-inductive logic since we had previously formulated questions, but we also allowed the contents from these three types of documents to create categories of their own. We would then describe and sometimes even quantify the phenomena that stood out from the participants' speech (Elo & Kyngäs, 2008). Our unit of measurement was the idea of the participant and through the process of open codification, major categories started to emerge. These were: Descriptions, Evaluations, Evolution, Experiences, Learning Outcomes, Level and Session. In Appendix III is the Category System created with the assistance of Nvivo 11.

## Presentation and Discussion of Results

In this section, we aim to answer the previously mentioned specific objectives and we have decided to divide these into six categories: the feedback given by participants, the reported knowledge acquired, their intrinsic experience regarding the programme as well as their experience throughout the sessions, the changes they perceived in their relationships and finally changes in their school life. It is also of importance to mention that during the analysis of the data we utilize the term *experience* as defined by the constructivist perspective as stated by Turner and Bruner (1986): "The anthropology of experience deals with how individuals actually experience their culture, that is, how events are received by consciousness. By experience we mean not just sense data, cognition, or, in Dilthey's phrase, "the diluted juice of reason," but also feelings and expectations." (p. 4).

### Feedback of the Programme

Regarding participants' feedback of the CEH programme, there are more references to a positive evaluation rather than negative as it can be seen in Appendix III. Positive experiences mentioned include satisfaction, fun, interest, relaxation, expectation and surprise. Some of the positive aspects mentioned regarding CEH encompass changes perceived in themselves as well as new ways to cope with daily issues "*I do think it does help people, who like me, are stressed out and can't think properly during stressful times...*" (Carolina); the diversity of the curriculum was praised as well "*I liked how diverse the topics were and how they all interconnected and how the mindfulness played into the topics as well...*" (Lucy). There were also mentions of an overall satisfaction with the CEH programme as a whole "*I hope that I will be able to join Enlightened Heroes next year, because I had tonnes of fun this year!*" (Maria).

Although negative feedback was less prominent, all participants mentioned it at least once. They reported experiences of discomfort, sadness, difficulty and preference for something else

*“Sometimes when I meditated I would go too deep into my thoughts and then I would feel... sounds like a bit of a baby-ish thing to do but I would feel like crying because... like I don't know... I just felt like I delved into a place in my mind where I shouldn't have been, and I feel like crying... but I never know why”* (Maria). Other negative perceptions were influenced by religious beliefs *“Sometimes I got a little bit uncomfortable with the mindfulness because I'm a Christian it was sometimes a bit harder for me to actually do some of the exercises, so I would change the exercises for myself... I didn't love that...”* (Lucy) as well as by a difficulty in understanding the contents due to a language barrier *“In the HIP I really liked the conversations we had but I'm not that kind of person that likes to watch those videos ... I don't understand very well ... sometimes I used to not understand very well the videos....”* (Marta). Some participants also mentioned ideas to improve the programme, including more and longer sessions, with more experiments (including psychology-based content): *“I wish there were more sessions.”* (Julie), *“I would've also liked to have more psychology because it is a topic that interests me greatly...”* (Maria), *“Just a bit short on time sometimes...”* (Carolina).

#### Knowledge Acquired After the Programme

Overall, we were able to observe that all the participants reported acquiring knowledge about the contents from the CEH curriculum and were able to reflect upon them (n = 5).

Starting with the Mindfulness sessions contents, most participants (n = 4) were able to discuss about the two mindful attitudes discussed. Marta, Maria and Julie spoke about the *Beginner's Mind* which is one's capacity to see everything as if it was the first time, freeing ourselves from expectations (Kabat-Zinn, 2013) *“Whenever you are doing anything you should be thinking about it... you should try to dedicate yourself like that scene in Ratatouille where he eats the cheese and he sees the things, he's not thinking about taxes or whatever... he's thinking about the cheese and describing it.”* (Maria). On the other hand, Lucy and Marta describe *Letting Go* which is defined by Kabat-Zinn (2013) as accepting things just as they are, letting go of your expectations of them *“maybe it helped me not care as much, because I tend to become very sad when we fight, maybe it helped me not get as sad... move on, not overthink...”* (Marta). Regarding the active listening activity from session five (see Appendix I) all participants were able to discuss and explain their take-away message (n = 5). Maria in particular stated that *“It was that we can identify a lot of how a person thinks just by looking at their face just by looking at their eyebrows the way they even their nose contorts...”*. For Carolina it was that *“Listening and speaking were both hard”*, on the other hand Marta thought *“that it's much more easy to*

*talk than to listen*". Lucy concluded that the exercise was *"helpful on understanding how I can be more attentive during conversations"*.

Regarding the HIP contents, when asked about what the HIP's concept of a "everyday hero" was, all participants were able to answer (n = 5). They mentioned that being a hero isn't the opposite of villain but of a bystander, helping others in undesirable circumstances or even preventing these situations from occurring *"Somebody that does something every day that causes something good in the world, for example being a firefighter, doctor/ nurse or just being actually just a good person trying to help random people..."* (Carolina). When asked about the SPE, all participants were able to identify and discuss occurrences from it *"it was very controversial and ethically questionable and it was quite a necessary experiment because it was this question of is a good person still a good person in the face of an evil environment... even he [Zimbardo] himself was (...) losing grip on who he was... and the people who were the prisoners were subjected to horrible things ... some of them suffered even psychological trauma and it was never recreated the same way it was that first time"* (Maria). In contrast, Marta was only able to vaguely describe and comment the SPE.

Finally, regarding the relationship between mindfulness and HIP sessions, most of the participants were able to voice their thoughts on the relationship between the two components of the CEH. Julie said that mindfulness helps fight the bystander effect by having a non-judgemental attitude towards the person in need, maintaining the helper's integrity *"I mean many times we do stuff we become bystanders because we don't like a person or we just feel uncomfortable in a situation and then mindfulness it helps us to be more neutral about all those things, just to accept things as they go and we know that what's right is right and what's wrong is wrong no matter the context or the situation."* Lucy mentions that the Mindfulness component helps keep attention to your surroundings, increasing the probability of helping behaviours occurring *"It's possible to be a hero without being mindful but you have to still pay a lot of attention, (...) but by being mindful in the moment you actually notice a lot more what people are doing around you and the effects that certain things will have on those people, and so by being mindful you can notice a lot more situations where you can be a hero, or at least help others be a hero"*. In a similar fashion, Carolina mentions that the relationship is linked to attention and our surroundings *"getting people to truly see how the world is and start focusing on their surroundings with what is happening around them..."*. Marta says that both components are related because they both help with self-improvement *"it all has to do with becoming a better person and giving more value to life!"*.

These results demonstrate that the participants were able to understand the benefits reported by Jones (2017) regarding their Mindfulness sessions and its facilitating relationship with Heroism such as heightening their awareness and aiding their non-judgemental attitudes towards others.

### Intrinsic Experience Regarding the Programme

With this objective we aimed at exploring participants experiences of the programme as a whole, reporting personal changes that they noticed. The more predominant experiences reported by the participants were Awareness (n = 5), Calm (n = 4) and Empathy (n = 5).

Regarding Awareness, participants reported situations where they developed a Mindful Awareness *“It made me more perceptive of what’s around me...”* (Carolina), *“when I used to be walking it used to just be like ‘Oh, I’m going to get to a certain place and be done with it’ but with mindfulness I pay more attention to my surroundings and what’s happening like as I’m going to the place”* (Julie), as well as bringing awareness regarding their personal responsibility *“It made me feel more responsible..”* (Marta). Lucy reports that she started noticing more diffusion of responsibility in the corridors at school and she says that by being aware she can now start trying to find ways to stop it from occurring *“but because of the CEH project I can at least see that it is happening, so I can try to learn how to find ways to go against that.”* And in a similar fashion, Maria says that the CEH programme brought awareness to daily events and her impact on them *“I think that it alerted me a lot to what I see every day that I could change or have a positive impact (...)”*.

Regarding the experience of Calm, Julie reports that the CEH programme helped her out with her patience and anger issues *“well I take things more calmly (...) I calm down, ask them nicely and repeatedly, but there’s always one point where if they push too much I snap.”* Lucy mentions that it helped her be able to calm herself and control her anxiety, improving her interest in school *“I do have anxiety issues and they definitely got less because of CEH and I’ve learned how to control them a bit better but also where I can actually allow myself to be interested in school”*. In a same note, Maria and Carolina says the programme helped them cope with stress *“it also changed from being quite stressed most of the time like buzzing to being more calm...”* (Maria). All participants reported changes in dealing with their anxiety in their daily lives (n = 5), connected to the feeling of calm, attributing this change to the Mindfulness component *“because when I feel stressed I would think about the techniques learned specially in mindfulness”* (Marta). Regarding changes in daily attention and concentration, Carolina

reported it helped with her procrastination *“I try harder now instead of just procrastinating all the time...”*, while Maria and Lucy both reported that it helped them focus, with positive effect on their study *“was able to focus better and for longer periods of time (...) which made studying easier”* (Lucy). Marta and Julie both mentioned that CEH helped them focus more on the present *“I’ve been more focused on the little things and give the value that each thing deserves, sometimes there are moments in our lives that we deem them insignificant but, in the end, they do end up making a bigger impact and making the difference”* (Marta).

This decrease in anxiety reported by the participants, can be explained by Bishop et al. (2004) as Mindfulness will bring awareness to the rumination component of anxiety and give the individual a set of tools to control their thoughts and take action to reduce the negative feelings associated with it. These findings are corroborated by a meta-analysis by Carsley, Khoury and Heath (2018), which concluded that mindfulness interventions were helpful, especially with adolescents with ages between 15 and 18, in regards to their mental well-being

When evaluating the participants’ Empathy, we chose to take a multidimensional approach as suggested by Davis (1983) and created two child categories utilizing their definitions for “Perspective Taking” (PT) and “Empathic Concern” (EC). The former refers to a more cognitive component, where the participant tries to understand the other’s point of view and behaviour, whereas the latter deals with the emotional aspect of the concept and refers to prosocial feelings of compassion and concern for the other. Regarding the PT component, Carolina, Lucy and Maria mentioned this throughout their reflections regarding the bystander effect *“I feel like a lot of us can relate to that, because we don't do anything because we don't know why is it there (...)”* (Carolina), regarding how they now deal with people they don’t like *“trying to be thankful for what they have done and what they could possibly do, that was actually very interesting and made it a lot easier to see they do have their own story (...) we don't really know what's going on in your life”* (Lucy), or even when explaining why they started greeting people on the street *“I always thought that at their time [the elderly people] specially in this country people were always like “Bom dia, bom dia [Good morning, Good morning!]” and nobody does that anymore I thought that they didn't really seem that happy for that and so I say good morning (...) and it's fun!”* (Maria). Regarding EC, Carolina, Julie, Maria and Marta mentioned this while reflecting about the contents shown in the HIP sessions *“...that video that you showed us of people passing by a stroller but there was no baby in it but imagine if there was and people just pass through it and nobody's doing anything about it?”* (Carolina) and when they reflected why they helped someone else *“because I used to get bullied so there were*

*a lot of people who were bystanders and let's say I on the other hand try not to be a bystander as much as I possibly can" (Julie).*

Regarding these changes, Shapiro et al. (2006) mention that the practice of Mindfulness facilitates a shift in perception where the participant can step away from their present experience. This in turn will make participants more aware of other's conditions, which will ultimately increase one's empathy. Furthermore MLERN (2012) report that contemplative practices will promote empathy, empathic concern, problem solving and compassion, which is observed in our participants connection of the reported empathy and situations when people needed help. The results by Sanger, Thierry and Dorjee (2018) also further expose that participants who went through a Mindfulness programme reported being more aware of socially relevant emotional stimuli (regardless of their valence).

### Intrinsic Experience Throughout the CEH Sessions

Although not all participants were present during the sessions (Appendix I), various experiences were reported through the CEH Diaries. Experiences of Difficulty, Ease and Satisfaction were reported overall. On the other hand, HIP sessions brought reports of Interest and Expectation (with one participant experiencing PT), whereas Mindfulness sessions saw reports of Relaxation, Calm and Fatigue as predominant.

There were also more experiences reported overall in Mindfulness sessions when compared to HIP. However, analysis of the CEH Diaries demonstrated more participant reflection during HIP sessions (see Appendix IV and Appendix V). This can be explained by Bishop et al. (2004) as the practice of Mindfulness incentivises one to accept the experiences that occur during the process, attuning participants to them – and thus, these become more readily reportable in the diaries. This contrasts with the HIP curriculum, which is more reflection-based, where we stimulate their heroic imagination, which will make them reflect more on their actions (Olusegun, 2015).

### Changes in Interpersonal Relationships

#### *Parents*

Regarding participants perception of changes towards their parents, three participants (Marta, Lucy and Carolina) reported that the CEH programme helped them in their relationships. Maria reported no changes and Julie disclosed that there were some changes in her relationship with her father but not her mother.

Marta mentions that the programme helped perceive her arguments with her parents differently “*maybe it helped me not care as much, because I tend to become very sad when we fight, (...) move on, not overthink*”.

Just like Marta, Carolina, mentions that, while arguing with her parents, she was able to stand up for herself as well as be more open with her feelings towards them “*...then I told him why you getting angry at me if I had nothing to do with it and I had no idea what had going on that time?*”.

Lucy has similarly reported that CEH has “*... made having conversations with my family members easier...*”, that with her mother “*... she’s always trying to pull me out of my shell in a way and because of the CEH programme I was able to actually not just give her three-word answers, I was actually able to carry on the conversation!*”. With her father she reflects “*I am his eldest daughter, so his first kid, he didn’t have any sisters, his only female person was his mom, so he doesn’t really know what to do with [laughs] but he does try and we both love photography (...) we try to have good conversations, it’s still a work in progress, but we’re getting there...*” but she does mention that the Mindfulness sessions were able to help her “*...actually pay attention when he’s talking to me [laughs]*”. She also mentions that due to the programme she started appreciating more “*...the fact that he isn’t pushing me away because doesn’t know what to do with me... he’s trying to come closer*”. Lucy attributes these changes to the conversational skills learned during the programme, successfully generalizing them to her other relationships “*... but because of it [the discussions in class] we were also able to have some honest conversations as well, I could apply this to my own relationships as well!*”.

On the other hand, Maria reports no changes in her relationship with her parents, “*... some things that the program taught me were with things that I’ve felt before, for example, the appreciate facet of mindfulness I already felt since a long time ago towards my parents and so I always try to treat my parents in a way that makes them feel appreciated...*”.

Julie reports that she noticed a positive difference in her relationship with her father “*I would say my relationship improved with my dad (...) we used to have a really close bond, but that broke off years ago, but sometimes I text him and everything so it’s better...*” she further explains that the programme helped reciprocate the effort to construct her relationship with him “*He himself has changed the way he treats me and I guess with mindfulness and everything I felt like, okay maybe I should give some of that back.*”. A development in her empathy towards her father is clearly identifiable, especially regarding perspective taking. On the other hand, she

describes no change on her maternal relationship, stating that *“with mom it's the same, because even though it's rocky we're really good friends...”*.

### *Siblings*

Regarding changes in the relationships between the participants and their siblings, most of them (n = 3) reported no changes *“No we've always been very close for the last five years... we still have fights, but they're normal!”* (Marta), while the remaining two mentioned some improvements.

Lucy reported feeling more empathic, taking her sister's perspective while trying to understand her actions *“my sister and I don't always get along... I mean nine [years old] or so there's a big difference between us... but I am trying to see that she is nine, I can't expect her to act like a 12-year-old, (...) so taking in her personality and her story”*. Maria describes feeling that she can relate more and therefore she was able to start seeing her sister as more human than before *“...she's stopped seeming like a concept and now I see her more like a human being I started seeing more things in my sister that you could also relate to.”*

### *Friends*

Regarding their relationships with friends, Carolina didn't perceive any changes. Marta shares the same perspective, although she does detail a situation where she helped her friend pass their drama exam *“she said that it was thanks to me that she was able to do the exam because I passed my [Drama] notes to her to help her during the exam because we could write notes on the script”*.

On the other hand, Lucy reported that due to CEH she gained confidence to ask her friends to stop gossiping about others, successfully *“sometimes my friends when they are right there around me they have stopped talking about certain things(...) I don't know if they still talk about it or not, but I have noticed that people do treat me differently...”*. Maria reports that she has started empathising more with her friends and that she now thinks about the different reasons for their actions *“since the program started I have been able to notice what they're thinking what they're feeling better, I can notice better the messages and hints they try to give me and I can think about their actions in many different ways”*.

Julie says that she perceives that her attitudes towards her friends have changed as well, mentioning that she's been more caring, patient and empathic with them *“the sessions had a lot to do with it because the constant saying of “you have to be more patient you have to think*

*about it on the other person's perspective whenever you're mad, just breath" because we say stuff we don't want to and all that and I know deep down that my words can hurt them a lot".*

### *Colleagues and Others in Society*

Regarding participants' reported changes with their classmates, Carolina said she felt no change in her relationship with her colleagues, although she also reports asking others for help more often, even describing a situation where she assisted a stranger *"the other day I saw a person in school that had their arm broken let something fall on the ground and I helped them pick it up and there was all the form nines getting out of the class, I was the only one who went down to help"*.

Julie reports changes in her relationship with her colleagues as well as with strangers, saying the programme helped her integrate better with her form class by bringing her awareness to her isolation, and therefore she was able to establish more acquaintances, especially her colleagues, feeling reciprocated *"I speak to my classmates more (...) I try to help them more and they seem to confide more in me..."*. Regarding strangers she describes a hypothetical experience of Perspective Taking when compared to her old habits *"if I see people are rude I just kind of ignore it and try to be as nice as possible or as unresponsive as possible... I try not to complain because they might be having a hard day or whatever, so I just go along my way"*.

Lucy reports feeling less socially awkward due to important social skills learned during the programme that have benefitted her in other relationships *"I am getting there I am starting to help people more in the corridors if I see them fall I'll help them up..."* she also describes a daily interaction she has on her way to school with an elderly man, reporting that she feels more comfortable interacting ever since enrolling *"(...) there's this very elderly man, who I see every day when I walk to school and when I walk back home he always gives me two kisses on the cheek whenever he sees me he asks how I'm doing, I have no idea who he is, but I try to be very nice to ask him how he's doing and how his wife is"*.

Maria reports a change in attitude towards other people since she started the programme *"the programme has helped me know that there are other things to worry about and every time I worry about something trivial, I always think, "wait a second! somebody was stabbed and nobody reported that!" so I think that it could have been in a much worse place than me!"* Regarding her interactions with strangers she describes an experience of perspective taking when she explains why she now greets more the elderly on the street and that she has started complementing strangers more in the street *"I've also been complimenting strangers more it*

*might seem like a weird thing to do, for example there was this lady, she had really cool lobster earrings and I was like “those earrings are really cool” and she said, “aw thanks!”*”.

Marta reports that the CEH programme helped her overcome stereotypes that she had about her colleagues *“it helped me understand that the ones who we think are nerds and that I didn’t get along with, can also be fun!”*.

These changes regarding others, colleagues and friends were also seen in a group of participants where, by practicing loving-kindness meditation (which our participants also got to practice) reported improvements in implicit attitudes to more stigmatized groups (Kang et al., 2014). Here, we can also observe the relationship between Mindfulness and Heroism, where all the components (better attentional functioning, more efficient conflict monitoring, spontaneous kindness and increases in empathy) coalesce and improve relationships and, through it, stimulate with that, more pro-social behaviours (Jones, 2017; Luberto et al., 2018). This can be further explained by Eisenberg, Fabes, and Spinrad (2006), that prosocial behaviours are linked to positive personal and socioemotional variables such as perspective-taking empathic concern, positive peer and parental relationships, which these traits can be observed by what the participants report in this section as well in the Intrinsic Experience Throughout the Programme.

### School Life

#### *Attention and Concentration*

Apart from Julie, all the other participants reported changes in their attention and concentration regarding their school life (n = 4). Carolina, Lucy and Maria all reported that CEH (specifically, the Mindfulness component) helped them study and focus for longer periods of time *“I could feel more apt to go study better and to concentrate, it helped me focus!”* (Maria). Marta says the advocacy for personal responsibility made her take the initiative of sitting by herself, increasing her concentration and attention during class *“I sit by myself and I don’t sit with my friends because I know I’ll get distracted and I really concentrate in lessons.”*

These results are corroborated by Zeidan, Johnson, Diamond, David and Goolkasian (2010), successfully demonstrating that that brief Mindfulness programmes were linked to improved executive functioning, working memory, attention and concentration.

#### *Test-Related Anxiety*

Regarding test-related anxiety, Carolina, Lucy and Maria all reported that the CEH programme helped them *“Whenever I felt really anxious (...) I could just sit down and I’ll stare at the paper*

*for a few seconds and I would be really calm and I would close my eyes for a second and then I would just look at the paper and then think about it, and when I was calm and I could have a clear mind I would write the answer”* (Maria). Julie reported that the mindfulness component improved her anxiety management by helping her fall asleep *“Before I had a really hard test or an exam that I’m really worried about, I usually go to sleep with little sounds from mindfulness and stuff because they help me rest better even though I get 5 hours of sleep”*. Marta reported no changes.

It is reported in the literature that Mindfulness does facilitate test-related anxiety, and therefore improves academic performance in exams. A negative relationship between anxiety and academic performance has also been described, as when students are anxious they tend to focus more on negative thoughts about them and their adequacy to successfully finish the activity. Test anxiety is related to self-criticism, which creates feelings of inadequacy - especially when faced with failure, which leads to feelings of self-disgust, culminating on a destructive answer towards failure and a subsequent lower capacity for self-acceptance and lower mindfulness characteristics (Cunha & Paiva, 2012). To reiterate, Mindfulness teaches participants how to stop rumination by instead accepting one’s internal experience in a non-judgemental fashion (Franco, Mañas, Cangas, & Gallego, 2011).

## Conclusion

In conclusion, all participants reported a positive perception regarding the CEH programme, with various improvements in anxiety, attention and concentration in daily activities as well as in school, participants’ relationships, in particular, saw improvements at all levels (family, peers, colleagues and others in society). It also led to an increased awareness of the occurrence of prosocial behaviours and attitudes. Throughout the sessions, participants reported more experiences during Mindfulness classes and more reflections during the HIP component. Furthermore, the experiences that participants reported more after going through the programme are Awareness, Calm and Empathy, which is in accordance with the rest of the results.

This was a pilot study where we attempted to successfully incorporate Mindfulness with the HIP curriculum, as a response to the Jones' (2017) theoretical paper, as a way of showing that heroic qualities can be trained to promote prosocial behaviours. In this study we utilized a variety of material to record data and, due to its’ qualitative nature, were able to explore participants’ experiences, perceptions and their perceived changes in a more profound way. The

heterogeneous nature of our sample, particularly concerning nationalities, gives us a myriad of different perspectives and cultures, which ultimately enrich our data.

This last strength can also be a limitation, as there can be a potential language barrier – though all participants spoke English, there was considerable variation in their level of fluency. Additionally, the small sample size, in conjunction with participants' gender, could've resulted in biases in their experiences and reflections. Regarding our analysis, our data didn't achieve theoretical saturation - a limitation of this study. Having the participants' feedback in mind, other possible weaknesses concern the overall short length of the sessions, the imbalance in the distribution of the number of HIP sessions and Mindfulness classes and, finally, the existence of only a single session in which both contents merged.

Regarding practical implications of this study, this programme can prove beneficial to adolescents who struggle with attention and concentration or anxiety, as participants reported improvements in those areas. It could also be beneficial for people who struggle with prosocial attitudes and behaviours. Finally, as previously stated, this is a pilot study which practically aims to promote and increase more research in these two areas and their relationship.

Keeping in mind the pilot nature of the study, it is our hope that this can be the first stepping-stone to more research regarding the field where Heroism and Mindfulness merge. Therefore, we suggest the following future considerations: longer CEH sessions, equal number of HIP sessions and Mindfulness classes, explore the CEH programme with a larger group, explore with other age ranges and genders, try to attain theoretical saturation if considering a qualitative natured study, and finally utilize a quantitative methodology with a pre and post-test design, while including a control group.

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# Appendix

## Appendix I - Session Contents

Session Number (Type of Session)	Objectives	Activities	Any suggested exercises to be done at home	Number of Present Participants	Number of Absent Participants
1 (Mindfulness)	<ul style="list-style-type: none"> <li>• Understand the definition of Mindfulness</li> <li>• Learn about some the benefits of practicing mindfulness</li> <li>• Learn how to do breathing-based meditation</li> </ul>	<ul style="list-style-type: none"> <li>• Define Mindfulness</li> <li>• Discuss the benefits of practicing Mindfulness</li> <li>• Finished the session by doing breathing-based meditation</li> </ul>	<ul style="list-style-type: none"> <li>• The participants were invited to download the “Headspace” app for their cell phone</li> </ul>	3	2
2 (Mindfulness)	<ul style="list-style-type: none"> <li>• Revision of what was learned in the last session</li> <li>• Initial discussion about the attitudes of a mindful person               <ul style="list-style-type: none"> <li>○ The beginner’s mind</li> <li>○ Letting go</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Discussion about what was learned in the last session</li> <li>• Discussion of what is a beginner’s mind</li> <li>• Discussion of what is letting go</li> <li>• Breathing-based meditation</li> </ul>	<ul style="list-style-type: none"> <li>• The participants were encouraged to practice these two mindful attitudes that were presented in the session</li> </ul>	4	1
3 (HIP)	<ul style="list-style-type: none"> <li>• Presentation of what is the Heroic Imagination Project (HIP)</li> <li>• Discussion and explanation of what is a hero</li> <li>• Discussion and explanation of what is the Bystander Effect</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to HIP</li> <li>• “What is a hero” dynamic               <ul style="list-style-type: none"> <li>○ With the help of post-it notes the student was asked to describe what a hero was to them and then present it to the rest of the class while placing it around a human figure</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The students were invited to reflect and to share in the next HIP session a situation where they were a bystander</li> </ul>	4	1

		<ul style="list-style-type: none"> <li>• Discussion of the before-mentioned dynamic <ul style="list-style-type: none"> <li>○ The students were invited to explain their choices</li> </ul> </li> <li>• Introduction to the Stanford Prison Experiment and how it developed into HIP</li> <li>• We started the discussion about the concept of the bystander effect</li> </ul>			
4 (HIP)	<ul style="list-style-type: none"> <li>• Continuation of the discussion about the Bystander Effect</li> <li>• Discuss the effects of conforming</li> <li>• Discuss the five obstacles that prevents someone from helping</li> </ul>	<ul style="list-style-type: none"> <li>• Remember what was discussed in the last session</li> <li>• Discussion with the students about their previous experiences being bystanders <ul style="list-style-type: none"> <li>○ They were then invited to explain why they didn't help</li> </ul> </li> <li>• Deeper discussion about the bystander effect with the help from a video clip that showed various situations in which people were being part of social experiments in the streets of London <ul style="list-style-type: none"> <li>○ While watching the video strategic pauses were made so that the students could comment about how they were feeling, what they thought what the Bystanders were thinking and why they didn't help the people in need</li> </ul> </li> <li>• Discussion about the topic about conforming the five obstacles</li> </ul>	<ul style="list-style-type: none"> <li>• It was suggested to the students to engaged in a daily challenge during the next 15 days of Easter Holidays which the end product would be a photo album (physical or digital) with a brief description of how they completed the challenge</li> </ul>	5	0

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- Example of the Asch's conformity experiments where three of the students were stooges and the two remaining students were experimental participants
    - The image used for the example was taken from the internet and the three students knew before the session what their role was
  - A video was watched as a way of summarising the dangerous effects of conforming – this was an experiment where smoke came from the door of room
  - A more in-depth discussion was had about the five obstacles to helping
    - Diffusion of responsibility
    - The spotlight Effect
    - Group Ignorance
    - You're distracted/in a hurry
    - Helping could be dangerous

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5 (Mindfulness)	<ul style="list-style-type: none"> <li>• Discussion about what Active Listening is</li> <li>• Understand what it is and how you do it</li> <li>• Discussion about the non-verbal behaviours from active listening</li> </ul>	<ul style="list-style-type: none"> <li>• The session started by doing a dynamic activity where the students were separated into pairs, where one of was the listener and the other the speaker and after three minutes the roles would switch           <ul style="list-style-type: none"> <li>○ The goal was that the listener didn't talk (e.g. couldn't ask questions) and couldn't show any type of judgement</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• There was no exercise suggested during this session</li> </ul>	5	0
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		<ul style="list-style-type: none"> <li>○ The speaker had to talk about a personal subject</li> <li>• It was then discussed about the student's personal experience in each role</li> <li>• Discussion about non-verbal communication with emphasis about the non-verbal communication during active listening</li> <li>• Breathing-based meditation</li> </ul>			
6 (Mindfulness)	<ul style="list-style-type: none"> <li>• Continuation of the objectives from last session</li> <li>• Discussion about non-violent communication</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of the active-listening discussion</li> <li>• It was then introduced the topic of Non-violent Communication</li> <li>• Body-scan meditation</li> </ul>	<ul style="list-style-type: none"> <li>• There was no exercise suggested during this session</li> </ul>	3	2
7 (HIP)	<ul style="list-style-type: none"> <li>• Discuss the topic of discrimination <ul style="list-style-type: none"> <li>○ A special focus in the events during the Holocaust and during Apartheid</li> </ul> </li> <li>• Discuss how these events relate to the topics already discussed before such as the bystander effect and conformity</li> </ul>	<ul style="list-style-type: none"> <li>• Video about the Blue Eyes Experiment</li> <li>• Discussion about why this experiment exists, how it was done and the ethical issues behind it</li> <li>• Relate this experiment to the phenomena that occurred during the Stanford Prison Experiment and the concepts learned about the bystander effect</li> <li>• Watching the movie "The Wave (1981)"</li> <li>• Discussion of the film, relating it with the concepts learned previously</li> </ul>	<ul style="list-style-type: none"> <li>• Foi pedido às alunas que trouxessem para a última sessão os diários fotográficos dos desafios</li> </ul>	5	0
8 (Mindfulness)	<ul style="list-style-type: none"> <li>• Discuss the concept of gratitude</li> </ul>	<ul style="list-style-type: none"> <li>• The students were asked to write a list about what they were grateful for</li> </ul>	<ul style="list-style-type: none"> <li>• The students were invited to</li> </ul>	4	1

	<ul style="list-style-type: none"> <li>• Relate this concept with empathy and mindfulness</li> <li>• Introduction to the Loving-kind meditation</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion of what they wrote and how gratitude is the base to our being</li> <li>• Relate gratitude with empathy</li> <li>• Discussion about empathy and its relationship with mindfulness</li> <li>• Exercise of the loving-kind meditation <ul style="list-style-type: none"> <li>○ Example: “I am happy because the others and all living things are happy”</li> </ul> </li> </ul>	<p>participate in mindfulness session that occurred during lunch time at school after the end of the CEH</p>		
9 (Mindfulness and HIP)	<ul style="list-style-type: none"> <li>• Conclusion of the CEH programme</li> <li>• Summary of all the concept learned throughout the programme</li> <li>• Discussion about what an Enlightened Hero is</li> <li>• Relate the concepts taught in the HIP sessions with those taught in the Mindfulness sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Summary of the concepts learned throughout the Mindfulness and HIP sessions</li> <li>• Discussion about the relationship between these</li> <li>• Conclusion of what is an Enlightened Hero</li> </ul>	<ul style="list-style-type: none"> <li>• The students were encouraged to promote prosocial and altruistic behaviours and that they were now setting the “example” of a hero</li> </ul>	5	0

## Appendix II – Individual Interview Script

Duration approx.: 15 to 20 mins

Dimension to be Explored	Sub-dimensions	Interview Questions
Introduction		
The programme		<ul style="list-style-type: none"> <li>- What did you think of the Creating Enlightened Heroes programme?</li> <li>- What was the thing you most liked about the programme?</li> <li>- What was your least favourite thing?</li> <li>- In your opinion, what were the most meaningful lessons you learned in this program?</li> </ul>
Knowledge	Mindfulness	- Now, regarding your mindfulness sessions, do you remember one of the mindful attitudes that you discussed with Mrs. Pinto?
	Heroic Imagination Project	- Remember the active listening activity? What would be your take away message from it?
	Enlightened Heroes	<ul style="list-style-type: none"> <li>- To you, what's a hero?</li> <li>- About the HIP sessions, what is the bystander effect?</li> <li>- Could you summarize the Stanford Prison Experiment for me?</li> <li>- To you, what's the relationship between the HIP content and Mindfulness?</li> </ul>
Participants' intrinsic experience	Changes in the participants' self-knowledge	<ul style="list-style-type: none"> <li>- How do you think Creating Enlightened Heroes has changed you?</li> <li>- Do you think that the program has helped you dealing with anxiety in your life? (if yes) How so?</li> </ul>
	Changes in how participant perceives their intrinsic experience	

	Changes in anxiety and concentration regarding other situations in life other than school	- Regarding your concentration in everyday tasks, how do you think that the program could've helped you in that sense?
Society	Relationships with others Changes in participants' behaviours towards others in society	- Have you been able to fight against the bystander effect? (if yes) How so? (if no) How would you go about fighting it? - In your opinion, how do you perceive your attitudes towards strangers has changed? - How do you think your behaviours have changed towards them since the start of the programme?
School Life	Academic Performance Relationships with peers Changes in participants' behaviours towards peers Changes in participants' behaviours in the classroom and other school activities	- Regarding school, what do you think has changed since you started the programme? o Target: attention and concentration; test related anxiety management - Regarding your relationships with your classmates, how do you think they changed? o Target: behaviours and attitudes - In your opinion, what do you think were the most noticeable changes regarding your relationship with your friends? o Target: behaviours and attitudes - Do you think that your relationship with your teachers changed since you started the programme? (if yes) How so? o Target: behaviours and attitudes
Family	Relationships with family members Changes in participants' behaviours towards family members	- How do you think your relationship with your parents has changed since you were in the program? o Target: behaviours and attitudes - How do you think your relationship with your siblings as changed since you were in the program? o Target: behaviours and attitudes
Conclusion	Additional Information Acknowledgement	- Would you like to tell me something else about your experience that I haven't asked you about? - Thank you so much for your cooperation!

Appendix III – Category System

(1.) Descriptions					
Code	Name	Description	Examples	Sources	References
1.1	About the experiences	Descriptions done about the reported experiences.	<i>“I felt very relaxed. The tenseness in my neck disappeared as I did it, my body felt very heavy, as if there was a weight pulling down on it but with every breath the pressure turned cosy.”</i> (Julie)	7	20
1.2	About the sessions	Descriptions done about the session contents, what topics they learned that day, what activities were employed, etc.	<i>“We continued with the bystander effect; we started talking about how dangerous conformity can get.”</i> (Carolina)	5	30
1.3	How the programme helped them	Descriptions about how the participants perceived that the programme helped them achieve such change in relationships, personally, etc.	<i>“(…) but because of the CEH project I can at least see that it is happening, so I can try to learn how to find ways to go against that.”</i> (Lucy)	5	50
(2.) Evaluation					
Code	Name	Description	Examples	Sources	References
2.1	Negative	When a participant perceived something as negative.	<i>“Sometimes I got a little bit uncomfortable with the mindfulness because I’m a Christian it was sometimes a bit harder for me to actually do some of the exercises, so I would change the exercises for myself... I didn’t love that...”</i> (Lucy)	12	22
2.2	Positive	When a participant perceived something as positive.	<i>“In the part of meditation, I felt really relaxed and happy.”</i> (Marta)	15	108

(3.) Evolution

Code	Name	Description	Examples	Sources	References
3.1	Beginning	Experiences, descriptions or changes that are reported at the beginning of the session.	<i>"This class was nice because to start off we were talking about what we were grateful for today"</i> (Julie)	5	24
3.2	During the Session	Experiences, descriptions or changes that are reported during the session.	<i>"...that people can bend and act remorselessly if conducted to do so by figures that are either from authority or that they respect."</i> (Maria)	5	43
3.3	End	Experiences, descriptions or changes that are reported at the end of the session.	<i>"... always appreciated the meditation at the end of the session and the tips we receive to mellow our day-to-day life."</i> (Maria)	5	41

(4.) Experiences

Code	Name	Description	Examples	Sources	References
4.1	Awareness	The experience of awareness which was identified in the participants' speech.	<i>"I started to become a bit more aware of things happening in the corridors, because that's where I spend the most of my time..."</i> (Lucy)	6	16
4.2	Awkward	The experience of awkwardness which was identified in the participants' speech.	<i>"(...) they don't really know what to do with me because I'm kind of a weird specimen..."</i> (Lucy)	5	7
4.3	Calm	The experience of calmness which was identified in the participants' speech.	<i>"I am super calm about everything... but in certain inside inducing situations, I feel like going to mindfulness and trying to calm down helps"</i> (Julie)	7	19

4.4	Crying	The experience of feeling like crying which was identified in the participants' speech.	<i>"(...) but they just make me feel like crying..."</i> (Maria)	1	3
4.5	Delving into mind	The experience of delving into one's mind which was identified in the participants' speech.	<i>"(...) though sometimes I would just close my eyes and delve so much into my mind that I would start getting a headache..."</i> (Maria)	1	2
4.6	Difficulty	The experience of difficulty which was identified in the participants' speech.	<i>"(...) I am trying to... it's still sometimes hard to break the habit of being a bystander..."</i> (Lucy)	5	13
4.7	Ease	The experience of ease which was identified in the participants' speech.	<i>"(...) made having conversations with my family members easier!"</i> (Lucy)	3	15
4.8	Empathy	The experience of empathy which was identified in the participants' speech.			
4.8.1	Empathic Concern	The experience of feeling empathic concern which was identified in the participants' speech. This is defined as the capacity to experience feelings of compassion and worry for others.	<i>"I have to because I know what it is like to be in that place, I know what it is like to be bullied and I know that nobody wants to be there, and I saw that nobody was helping, and nobody was looking like they were going to help so I just did it myself!"</i> (Maria)	4	4
4.8.2	Perspective Taking	The experience of being able to take other's perspectives in consideration which was identified in the participants' speech.	<i>"(...) since the program started I have been able to notice what they're thinking what they're feeling better..."</i> (Maria)	5	16

4.9	Expectation	The experience of expectation which was identified in the participants' speech.	<i>"I hope that I will be able to join Enlightened Heroes next year..."</i> (Maria)	4	8
4.10	Fatigue	The experience of fatigue which was identified in the participants' speech. These can either be by reporting feeling tired or when they fell asleep.	<i>"I felt really tired and at some point, I almost fell asleep"</i> (Marta)	4	10
4.11	Fun	The experience of fun which was identified in the participants' speech.	<i>"(...) it was really cool to understand and try to work towards that!"</i> (Lucy)	5	9
4.12	Gratefulness	The experience of being grateful which was identified in the participants' speech.	<i>"Yes, being grateful and I really now appreciate... I really think about how I'm grateful for that because before I was just happy to have but it was never this deep or I never thought so deeply about it"</i> (Marta)	4	10
4.13	Humanizing	The experience of humanizing others which was identified in the participants' speech. This is when a participant perceives the other as more human than before.	<i>"(...) she's stopped seeming like a concept and now I see her more like a human being I started seeing more things in my sister that you could also relate to."</i> (Maria)	1	2
4.14	Interest	The experience of interest which was identified in the participants' speech.	<i>"I thought it was very interesting first because you got to talk about so many diverse topics that are very current, and which could happen daily multiple times and it was really cool to actually see..."</i> (Lucy)	4	5
4.15	Liberating	The experience of feeling liberated which was identified in the participants' speech.	<i>"(...) because I can tend to think of multiple things at once and so just to become focused on that one thing was"</i>	2	3

			<i>very hard, but liberating at the same time...</i> " (Lucy)		
4.16	Preference	The experience of preference which was identified in the participants' speech. Such as when one referred preferring something over another.	<i>"I would've also liked to have more psychology because it is a topic that interests me greatly, though mindfulness was really cool too."</i> (Maria)	5	6
4.17	Preoccupation	The experience of preoccupation which was identified in the participants' speech.	<i>"Midway I got slightly concerned since my mom's birthday is tomorrow and I haven't gotten her anything and she has a surgery as well. I also have OPOMUN which I have nothing done and I need to win best delegate"</i> (Julie)	2	3
4.18	Relatable	The experience of relating to something which was identified in the participants' speech.	<i>"I liked the examples Mrs. [Pinto] gave because I related most of them with me and the way I see life every day"</i> (Julie)	4	4
4.19	Relaxed	The experience of relaxing which was identified in the participants' speech.	<i>"In the part of meditation, I felt really relaxed and happy"</i> (Marta)	4	12
4.20	Satisfaction	The experience of satisfaction which was identified in the participants' speech.	<i>"The thing I think I liked the most was going through the experiment and actually getting experimental on."</i> (Julie)	13	30
4.21	Surprise	The experience of surprise which was identified in the participants' speech.	<i>"In the end, the best part of gaining these people as friends which I didn't expect."</i> (Julie)	4	8

4.22	Uncomfortable	The experience of discomfort which was identified in the participants' speech.	<i>"I guess my fear of something happening when I close my eyes"</i> (Carolina)	2	2
(5.) Learning Outcomes					
(5.1) Contemplation		"(...) practitioners actively apply mindfulness theory by way of reviewing their past, evaluating their present, and planning more skillful future actions (Kudesia & Nyima, 2014). This helps overcome habitual ways of viewing the world, produces flexibility in response, and serves as a bridge between theory and practice." (Jones, 2017, p. 9)			
Code	Name	Description	Examples	Sources	References
5.1.1	Commitment to change behaviour	The participant expresses that they want to change their behaviour	<i>"I will start trying to help others more often, especially when I someone needs."</i> (Marta)	4	4
5.1.2	Reflections	Descriptions that show the participant reflected upon the contents given	<i>"...shows a lot about who Zimbardo is as well it shows that although he was deeply involved, he was still able to understand the evil of what he had done."</i> (Lucy)	11	84
5.1.3	Self-Knowledge	Where the participant mentions in their speech that they have learned about one's self	<i>"I learnt I have a beginner's mind with colours and Mrs. Pinto has said I am actually Mindful and have a lot of mindful characteristics..."</i> (Julie)	4	9
(5.2) Content Knowledge		Knowledge of the contents of the CEH that were acquire, these were reported by the participants or shown through examples			

Code	Name	Description	Examples	Sources	References
5.2.1	Active Listening	Contents reported about Active Listening	<i>"I learned that it is very very scary how much one person can take away just by what your face says..."</i> (Maria)	5	8
5.2.2	Beginners Mind	Content reported about the mindful attitude Beginner's Mind	<i>"Yeah there was this mindful attitude which was she told us to focus on like colours and I have told her that I always focus on the gradient of the sky and all that she said to change things up bit... maybe focus on leaves or something..."</i> (Julie)	3	3
5.2.3	Bystander Effect	Content reported about the Bystander Effect	<i>"The bystander effect is when you see nobody doing anything to change something, so you don't do it either"</i> (Julie)	5	13
5.2.4	Hero	Content reported about being a Hero	<i>"Somebody that does something every day that causes something good in the world for example being a firefighter, doctor/ nurse or just being actually just a good person trying to help random people that you find."</i> (Carolina)	5	6
5.2.5	Letting Go	Contents regarding the mindful attitude of Letting Go	<i>"One of them was trying to make ourselves happy for people that we didn't like very much..."</i> (Lucy)	2	3
5.2.6	Relationship between HIP and Mindfulness	Content reported about HIP and Mindfulness	<i>"Enlightened Heroes has made me a lot more aware of I should react when something is wrong, and mindfulness"</i>	5	8

			<i>has helped me be aware of the wrong things in the first place.” (Lucy)</i>		
5.2.7	Stanford Prison Experiment	Content reported about the Stanford Prison Experiment	<i>“because you understand like how do things influence others for example if you're doing an experiment with other people you also learn that you're also would be part of that experiment because you are also influenced...” (Carolina)</i>	6	9
(5.3) Prosocial Behaviours		Actions that benefit others (Mestre, Carlo, Stamper, Tur-Porcar, & Mestre, 2015).	<i>“Actually, yes because the other day I saw a person in school that had their arm broken let something fall on the ground and I helped them pick it up and there was like all the form nines getting out of the class, I was the only one who went down to help.” (Carolina)</i>	5	16
(5.4) Reported Changes		Changes identified by the participants in their speech.			
5.4.1	Anxiety	Changes related to anxiety in the participants’ daily and school life that were reported in their speech.	<i>“When we had lessons with Mrs. Pinto, those sessions with breathing exercises and trying to meditate they did help me.” (Carolina)</i>	5	29
5.4.2	Concentration and Focus	Changes in concentration and focus that were reported by participants in their speech.	<i>“(…) was able to focus better and for longer periods of time as well which made studying easier and made having conversations with my family members easier!” (Lucy)</i>	5	15

5.4.3	Fighting the Bystander Effect	Situations where participants reported fighting the bystander effect in their speech.	<i>"(...) but because of the CEH project I can at least see that it is happening, so I can try to learn how to find ways to go against that."</i> (Lucy)	5	12
5.4.4	No changes	When participants reported no changes in their speech	<i>"(...) it hasn't really changed..."</i> (Carolina)	4	19
5.4.5	Relationships with colleagues and friends	Changes regarding the participants' relationship with their colleagues and friends in their speech.	<i>"(...) she said that it was thanks to me that she was able to do the exam because I passed my notes to her to help her during the exam because we could write notes on the script."</i> (Marta)	5	28
5.4.6	Relationships with family members	Changes regarding the participants' relationship with their parents and siblings in their speech.	<i>"Maybe it helped me not care as much, because i tend to become very sad when we fight, maybe it helped me not get as sad... move on, not overthink..."</i> (Marta)	5	28
5.4.7	Relationships with others in society	Changes regarding the participants' relationship with others in society in their speech.	<i>"I would say that I say good morning a lot to strangers like specially elders on the street."</i> (Maria)	5	18
5.4.8	Relationships with teachers	Changes regarding the participants' relationship with their teachers in their speech.	<i>"it's also been kind of hard as well to watch teachers be bystanders as well and not knowing how to confront that"</i> (Lucy)	5	9
5.4.9	Throughout the sessions	Changes reported by participants throughout the sessions.	<i>"In this meditation I could successfully push away thoughts when I wanted to and felt a deeper connection between me and my body as I focused a lot on my heartbeat and how relaxed certain areas were."</i> (Julie)	2	3

(6.) Level					
Code	Name	Description	Examples	Sources	References
6.1	Body	Physical experiences that were reported by the participant.	<i>"The meditation was a bit weird because I felt as if the ground was shaking."</i> (Julie)	9	37
6.2	Emotions	Emotional experiences that were reported by the participants.	<i>"(...) and made me feel very content."</i> (Lucy)	9	28
6.3	Thoughts	Reported experiences as thoughts.	<i>"Yesterday wasn't the best of days so I thought that today I wouldn't be grateful for much, but I surprised myself."</i> (Julie)	10	71
(7.) Session					
(7.1) Number		The session's number.			
Code	Name	Description	Examples	Sources	References
7.1.1	1	Session number 1. Its' nature was Mindfulness.	<i>"I learned what was/is mindfulness and some of the examples given were relatable."</i> (Carolina)	3	9
7.1.2	2	Session number 2. Its' nature was Mindfulness.	<i>"I thought that the session was pretty swell, especially when we had discussions about the topic."</i> (Maria)	4	14
7.1.3	3	Session number 3. Its' nature was HIP.	<i>"It was the first HIP session and I think it is interesting."</i> (Marta)	4	9

7.1.4	4	Session number 4. Its' nature was HIP.	<i>"We continued with the bystander effect; we started talking about how dangerous conformity can get."</i> (Carolina)	5	11
7.1.5	5	Session number 5. Its' nature was Mindfulness.	<i>"(...) helpful on understanding how I can be more attentive during conversations"</i> (Lucy)	5	17
7.1.6	6	Session number 6. Its' nature was Mindfulness.	<i>"We talked about the way we communicate with others and how our facial expression have such an impact to others."</i> (Marta)	2	4
7.1.7	7	Session number 7. Its' nature was HIP.	<i>"Today we talked about discrimination."</i> (Marta)	5	9
7.1.8	8	Session number 8. Its' nature was Mindfulness.	<i>"This class was nice because to start off we were talking about what we were grateful for today"</i> (Julie)	4	11
7.1.9	9	Session number 9. Its' nature was Mindfulness and HIP.	<i>"I really like the conversation and the meditation we had today!"</i> (Maria)	5	17
(7.2) Type		If the participant is referring to a Mindfulness, HIP or the conclusive session.			
Code	Name	Description	Examples	Sources	References
7.2.1	Conclusion	A Mindfulness and Heroic Imagination Project session.	<i>"This class we concluded everything we had learnt. We discussed the relations between Mindfulness and HIP and saw we actually learnt something."</i> (Julie)	9	24
7.2.2	Heroic Imagination Project	A HIP session.	<i>"It was scary to see how quickly we as humans conform and were able to follow</i>	10	59

			<i>the head of authority when discriminating someone or forming a group.” (Lucy)</i>		
7.2.3	Mindfulness	A Mindfulness session.	<i>“I liked meditating and appreciating the moment because I normally do not have time for this” (Maria)</i>	10	75

Appendix IV – How many participants contemplated after each session

	Session Number								
	1	2	3	4	5	6	7	8	9
Contemplation									
Commitment to change behaviour		1	1			1			
Reflections	1	3	3	5	3		4	1	3
Self-Knowledge		1		1	2	2			

