

HEROIC IMAGINATION PROJECT
A preliminary investigation into the Sicilian school setting

CONTENTS

Introduction	3
Programme 1: "Mindset"	3
Results	4
Discussion	9
Programme 2: "Bystander Effect"	11
Results	12
Discussion	16
Conclusion	17
References	18
Appendix: Photos	19

Introduction

The Heroic Imagination Project (HIP) is a non-profit organisation that was created in the United States out of idea of the psychologist Philip Zimbardo, professor emeritus at Stanford University and former president of the American Psychological Association.

HIP has been developing school programmes for many years in order to bring about positive change, not only in the lives of students, but also within their communities. More specifically, on the basis of the results from the many research studies conducted by internationally famous psychologists, these educational programmes provide both students and teachers with a set of tools for better understanding human nature, to counter implicit false beliefs that we hold about ourselves and to better face the phenomena that strongly characterise our era (negative conformism, inaction in the face of emergencies, prejudice and discrimination, just to mention a few).

HIP arrived in Italy in 2014 thanks to funding from Cort Delany, an American lawyer, and Steve Luczo, the president of Seagate, who is also American but has links to Corleone, his mother's birthplace. The first Italian project was carried out in Sicily, at the "Don G. Colletto" school in Corleone and "Don Calogero Di Vincenti" school in Bisacquino, between November 2014 and January 2015. Given the experimental nature of the project, it was decided that only two HIP programmes ("Mindset" and "Bystander Effect") would be implemented, out of the six already developed in the United States. The main objective was to assess the effectiveness of these educational programmes within a cultural setting and a school system that were unquestionably different to those found in America.

Programme 1: "Mindset"

The sample. The "Mindset" programme, organised by Dr. Clelia Bartoli and Dr. Piero Bocchiaro, included 11 teachers and 150 students from the "Don G. Colletto" and "Don Calogero Di Vincenti" high schools. The programme took place at the two institutions, during school hours for the students and in the afternoon for the teachers¹.

The programme. The "mindset" concept has a long and significant research tradition within the field of psychology (see Dweck, 2006). Defined as a set of implicit beliefs that we hold about

¹ During analysis the data from the two schools was merged in order to provide a comprehensive view, which would simplify reading.

ourselves and our characteristics, the mindset of a person can be broadly classified as “fixed” or “growth”. The first refers to people who believe personal characteristics to be more or less innate and unchangeable elements, while the second refers to individuals that consider it to be like a muscle, something that can be developed.

The importance of such beliefs can be traced back to the influence that these beliefs have on every aspect of our lives. A fixed mindset, in actual fact, will lead people to wrongly believe that it is enough to be talented in order to get what they want. Some people are talented - these kinds of people think - and others are not - one way or another, it is useless to even try. A growth mindset, on the other hand, will push people to try their best and to consider setbacks in a positive light, seeing them as opportunities to learn.

With this in mind, this programme concentrated on an essential characteristic of every human being: intelligence. The HIP trainers focused on the main discoveries to have come out of psychology laboratories, using plain language and the help of educational videos. Not surprisingly, the students and teachers learned that our brains are plastic and that they adapt in response to every experience we have throughout our lifetimes. We change, that is the message, and we do so continuously.

And intelligence changes. While it is undeniable that all individuals come from different backgrounds, it is just as true that dedication plays a decisive role in their potential being expressed to its fullest. Throughout the programme, and thanks to exercises in class, the students were initially encouraged to reflect on how misconceptions may have influenced their motivation and academic performance. They were then trained on a series of strategies, shown by research to be particularly effective in counteracting fixed mindsets.

A similar course was taken with the teachers: videos, exercises and examples from research emphasised how negative beliefs about one or more students can often generate actual self-fulfilling prophecies (“Pygmalion effect”). Once the phenomena that underlie these psychological dynamics had been discussed and understood, the focus was shifted in this instance to the most useful tools for countering such beliefs and for creating interactive styles aimed at developing motivation and learning.

Results

Assessment of the effectiveness of the programme. The effectiveness of this programme was assessed in an objective manner via a questionnaire – Intelligence Mindset (Dweck, 2000) –

that was administered before and after the course. The questionnaire, which was distributed to students and teachers, consisted of eight statements aimed at identifying the way in which people consider intelligence (innate and unchangeable *versus* able to develop). The respondents indicated their degree of agreement/disagreement for each statement by using a number between 1 (totally disagree) and 10 (totally agree). Repeating this questionnaire at the end of the programme allowed for a statistical comparison to be made between the points that students and teachers gave before and after.

Students. Before starting the course, the overall average rating from students in response to the “Intelligence Mindset” questionnaire was 5.8. Our hypothesis was that the HIP course would have increased this average, leading to values that indicated an altered – towards the “growth” side – opinion of intelligence. This is what actually occurred: at the end of the programme, as seen in figure 1, the average student rating moved from 5.8 to 7.1.

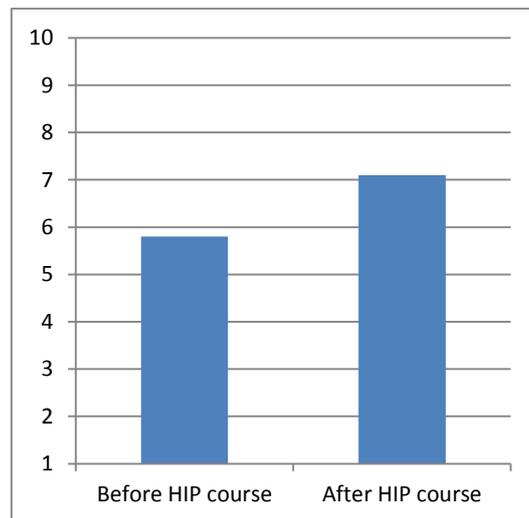


Figure 1. Rating from students in response to the “Intelligence Mindset” questionnaire

To guarantee that this increase in the rating was attributable to our intervention (rather than due to random factors) we implemented statistical tools. As hypothesised, the analysis results excluded the fact that such a trend was caused by chance – $t(82) = -4.94, p = < .001$ –, and instead indicated that a variation between the before and after figures was due to systemic factors (in our case, this was obviously the HIP course).

Teachers. During the initial phase, the average rating from teachers in response to the “Intelligence Mindset” questionnaire was 6.5. As occurred with the students, the teachers also demonstrated an increase in their average rating at the end of the course, in this case moving from 6.5 to 7.7 (figure 2).

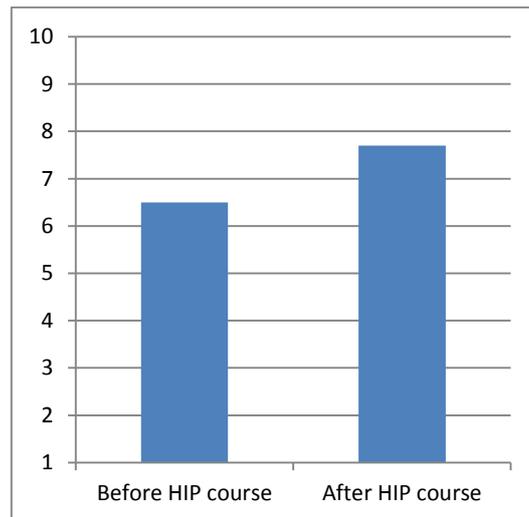


Figure 2. Rating from teachers in response to the “Intelligence Mindset” questionnaire

The statistical comparison between the two averages also excludes randomness – $t(10) = -2.38$, $p = .038$ –, demonstrating that the variation in the before and after rating can be clearly attributed to the HIP course.

Qualitative assessment of the programme. At the end of the course, in addition to the Intelligent Mindset questionnaire, a qualitative questionnaire was also conducted, which aimed to gather information on the students and teachers’ impressions of the experience. To be more specific, they were asked: (a) to indicate how important they held the course to be, (b) how much they had enjoyed it, (c) if they would like to take part in another on a new topic, (d) to use an adjective to describe it, (e) to specify the most important things they had learnt and (f) to tell us how they would work on their mindset. The results are below.

How important do you consider this course to be? The students and teachers replied to this question by using a ten-point measurement scale (1 = not at all, 10 = extremely). As seen in figure 3, the recorded ratings were high for both groups: 8.6 for students, 7.4 for teachers.

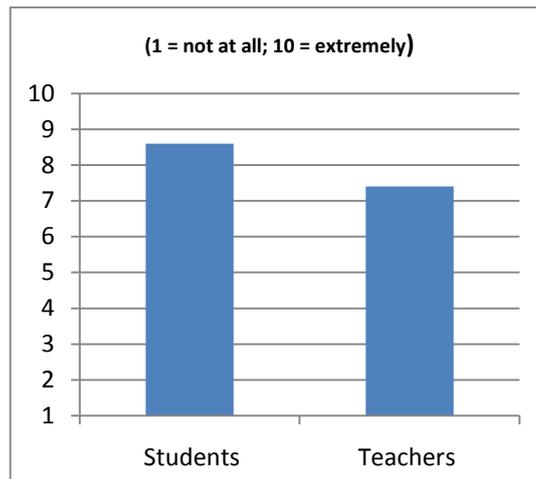


Figure 3. How important do you consider this course to be?

How much did you enjoy this course? The students and teachers showed high enjoyment levels, responding on a ten-point scale in this instance also. More specifically, the students demonstrated an average rating of 8.7, the teachers 7.4 (figure 4).

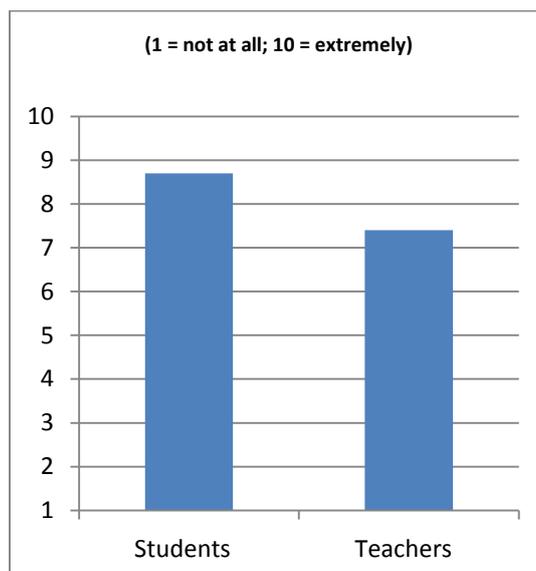


Figure 4. How much did you enjoy this course?

Would you like to do another course on a different topic? The students responded to this question with "Yes" in 90% of cases, "Don't know" in 9.3% of cases and "No" in 0.7% of cases. The teachers' responses were equally enthusiastic: "Yes" 90.9% and "Don't know" in 9.1% (figure 5).

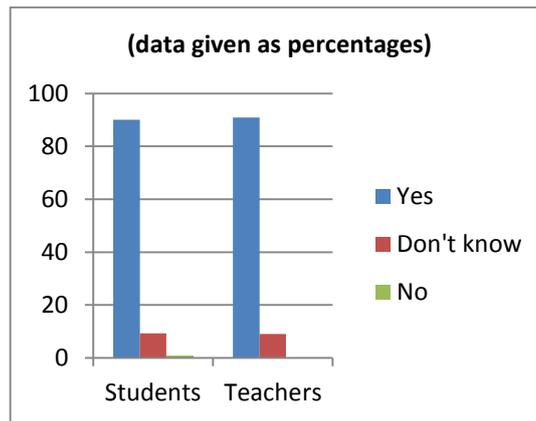


Figure 5. Would you like to do another course on a different topic?

Choose an adjective to describe this course. The two columns of table 1 show the adjectives chosen by students and teachers to describe the course.

Students		Teachers	
Interesting	42.8%	Interesting	36.3%
Educational	21.4%	Stimulating	18.2%
Important	8.3%	Illuminating	9.1%
Nice	6.2%	Compelling	9.1%
Encouraging	4.1%	Engaging	9.1%
Useful	4.1%	Useful	9.1%
Constructive	4.1%	Effective	9.1%
Other	9.0%		
Total	100.0%	Total	100.0%

Table 1. Adjectives chosen by students and teachers to describe the course

What are the most important things you have learnt from this course? This open question gave complete freedom of expression to the respondents. Some of the most significant answers from students and teachers are given below.

Students. (1) "I have learnt that the brain is dynamic and not static, that failures help and that it is important to have someone who supports you and what you believe in". (2) "I have learnt to not give up after failing, to believe that our abilities can always improve and that our brain is plastic". (3) "I have learnt that failing is not a negative factor, as is commonly believed, but actually a great opportunity for all of us because it allows us to achieve our goals. I have also learnt that in life we have to take risks and believe in ourselves". (4) "In life perseverance is fundamental in facing everyday situations. Failure leads to success and the knowledge that we

can always improve. The influence of others can make us grow in a positive or negative way. That's why we need to be instilled with as much confidence as possible".

Teachers. (1) "I have learnt to think that daily encouragement is important for the students that are entrusted to us every year". (2) "I have learnt to reflect on my prejudices and to look for new strategies to encourage students' work, both when it is positive and negative. To stimulate a dynamic mindset through recognising dedication more than 'ability'".

Do you think you will work on your mindset in the future? If yes, in what way? This final question also left adequate space for the students and teachers to respond. Some of the most significant answers supplied by the two subgroups are given below.

Students. (1) "I hope that I can change my mindset from static to dynamic because it will allow me to have a new world view, which will not cause me on-going anxiety and make me feel bad". (2) "I will make my mindset flexible and open to change: I need to accept failure and build on it". (3) "If up until today I have occasionally experienced prejudice about people, from today I will begin to get to know them for who they really are and I won't limit myself to appearances. Accordingly, I will try to get rid of my static mindset". (4) "I will try to work on my mindset by reflecting more and, above all, by trying to react calmly and peacefully when faced with difficult situations in life". (5) "Up until now I have had a static mind, but through this course I have come to understand that having a dynamic mind helps me. I will work hard to change it". (6) "Right now, I think I have a static mindset, which lies in the fact that I don't care about myself or what I can become. In fact, I live day by day. Today I have probably understood that we need to work to become better". (7) "I will try to use disappointments and setbacks to build a better future, one that is nicer, to achieve the dreams that I keep hidden away, that are waiting to be released and self confidence is the key".

Teachers. (1) "I will reflect on my teaching method in order to tailor it to the student". (2) "I will try to overcome my pre-set judgements". (3) "I will avoid going over negative situations, increasing my efforts every time difficult situations occur".

Discussion

The results from the "Mindset" programme are extremely significant in both quantitative and qualitative terms. Compared to what was recorded amongst the participants at the beginning of the course, the results at the end demonstrated that their framework of personal beliefs in connection to intelligence had changed. More specifically, the students and teachers gradually

acquired a set of theoretical and operational knowledge that allowed them to reshape their own mindsets, which took on a decidedly more growth/dynamic appearance in a short time span. Such a change, far from being purely formal, has greatly important implications for the school curriculum. As shown in the research (for a review, see Dweck, 2006), students with a growth mindset tend to aim for more ambitious goals, to work harder to reach them and view failures as normal events in the course of learning. The end result will be better the more the students have teachers who share their growth mindsets beside them, ready to encourage them, to believe in the potential of each student and to appreciate even the smallest improvement.

The success of the programme is also supported by the qualitative data collected at its conclusion. The students and teachers expressed positive assessments concerning how important and how enjoyable the course was, which was, moreover, described with adjectives like "interesting", "educational" and "stimulating" (these were the three most common). The students and teachers also, almost unanimously, stated that they would like to take part in other HIP courses on new topics. The answers to the last two questions, (*"What are the most important things you have learnt from this course?"* and *"Do you think you will work on your mindset in the future?"*) completed a scenario that saw topics, such as the importance of dedication and perseverance in achieving goals, self-confidence and the reevaluation of the concept of "failure", as central issues. This is, without a doubt, an additional piece of worthwhile data, especially when coming from a culture – Sicilian – that is largely static and historically disillusioned.

Programme 2: "Bystander Effect"

The sample. The same sample as before, 11 teachers and 150 students from the "Don G. Colletto" and "Don Calogero Di Vincenti" schools, took part in the "Bystander Effect" programme. In this instance the programme also took place at the two institutions and was organised by Dr. Clelia Bartoli and Dr. Piero Bocchiaro.

The programme. More and more the news is telling us about cases in which someone was in grave danger, at times even lying on the pavement dying, and they are ignored by dozens of passers-by. Whether it is a man or a woman, a young person or an elderly person, does not seem to make much difference: the reaction of those witnessing the scene seems to be, in reality, almost non-reaction.

This indifference demonstrated by bystanders was studied by psychologists as early as the 1960s (Darley & Latané, 1968; Darley & Latané, 1970). Various kinds of emergencies have been recreated in the laboratory and multiple aspects have been analysed for each. However, it is of little importance if modern psychology is able to explain this phenomenon if such knowledge remains within the confines of academia. Thanks to the "Bystander effect" programme, HIP is aiming to address this trend, making what the scientific community already knows accessible to everyone.

Step by step, the students and teachers learnt to understand the bystander effect. They were trained on the phases of the process that is activated in emergency situations, as well as the obstacles that lead the potential rescuer towards inaction. The concepts of diffusion of responsibility, collective ignorance and belief in a just world are central to this programme. They were studied in depth via educational videos and lead the teachers and students to understand the groundlessness of the idea that, if in an emergency situation, the victim is more likely to receive help if surrounded by a lot of people.

The students and teachers learnt that the drive to intervene can be severely hindered by a series of external, situational factors that are often underestimated or even unknown to those studying the phenomenon (see Zimbardo, 2007). The class exercises also encouraged personal involvement in the scenarios that were discussed little by little, as part of a growth process that aimed to supply critically important psychological tools for managing the various emergency situations, both ones experienced by the victim and ones experienced by the potential rescuer.

Results

Assessment of the effectiveness of the programme. Before beginning the course, the students completed a questionnaire entitled Bystander Resiliency (Dickerson & Gundersen, 2012), which had eight statements to measure the personal degree of knowledge concerning the psychological mechanisms that come into play in emergency situations (mechanisms that, most of the time, stop the bystander from providing assistance). The respondents gave their degree of agreement/disagreement to each statement on a ten-point scale. Repeating the questionnaire at the end of the course allowed for a statistical comparison of the pre/post intervention ratings to be carried out and, consequently, to obtain an objective measurement of its impact on the recipients.

Students. The initial overall average rating of the students in response to the “Bystander Resiliency” questionnaire was 5.8. Any increase in this average at the end of the course would have indicated an increase in the knowledge held by the students about the psychological dynamics that, in emergency situations, encourage (or hinder) assistance being given. The data gathered at the end was in line with our hypotheses and highlighted an increase in the average ratings, which went from 5.8 to 6.4 (figure 6).

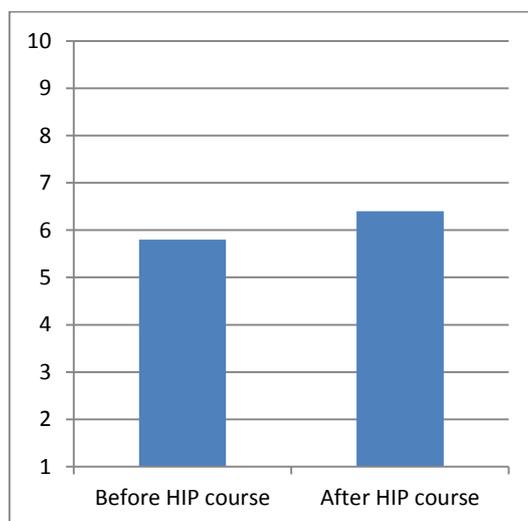


Figure 6. Rating from students in response to the “Bystander Resiliency” questionnaire

Once again, when confronted with a difference in the averages, we had to exclude the idea that this was due to random factors. The use of statistical analysis allowed us to resolve this query, demonstrating that the increase in the rating was definitely attributable to the HIP course – $t(84) = -3.71, p = < .001$.

Teachers. The initial rating from the teachers concerning the “Bystander Resiliency” questionnaire was 5.2. Like the students, a higher rating was recorded for the teachers at the end of the course also, which in this case stood at 6.2 (figure 7).

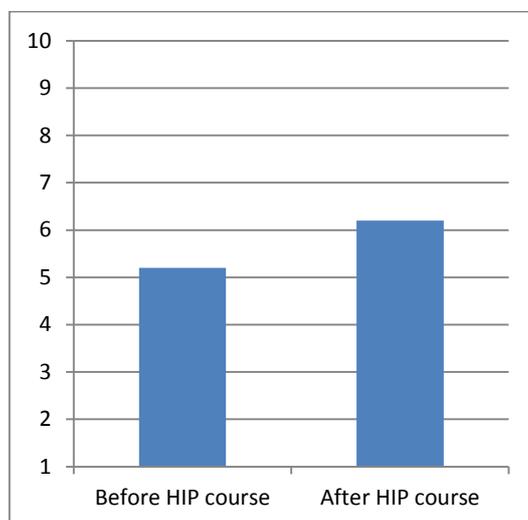


Figure 7. Rating from teachers in response to the “Bystander Resiliency” questionnaire

The statistical comparison between the two averages highlights that the aforementioned increase is clearly attributable to the HIP course, rather than random factors – $t(10) = -6.58$, $p = < .001$.

Qualitative assessment of the programme. At the end of the course, in addition to the Bystander Resiliency questionnaire, a qualitative questionnaire was also conducted, which aimed to gather information on the students and teachers’ impressions of the experience. More specifically, they were asked: (a) to indicate how important they held the course to be, (b) how much they had enjoyed it, (c) if they would like to take part in another on a new topic, (d) to use an adjective to describe it, (e) to specify the most important things they had learnt and (f) to tell us how they would have reacted if they found themselves faced with an emergency. The results are below.

How important do you consider this course to be? The students and teachers evaluated the importance they gave to the “Bystander Effect” course using a ten-point measurement scale (1 = not at all, 10 = extremely). Figure 8 illustrates very high ratings for both students (8.5) and teachers (8.3).

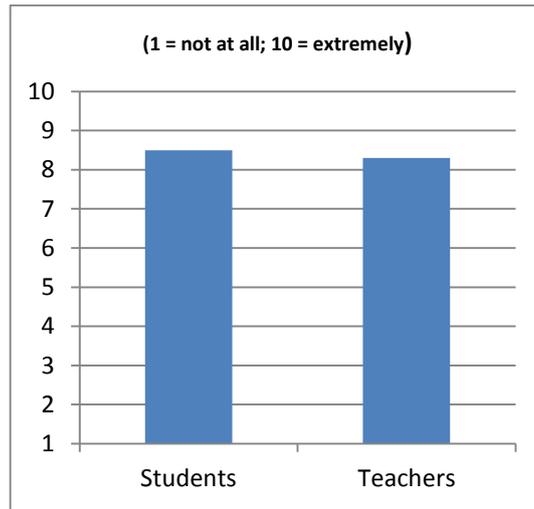


Figure 8. How important do you consider this course to be?

How much did you enjoy this course? The opinion of the respondents was given via a ten-point scale in this case also. The results demonstrate a very high level of enjoyment both for students (8.3) and teachers (8.7) (figure 9).

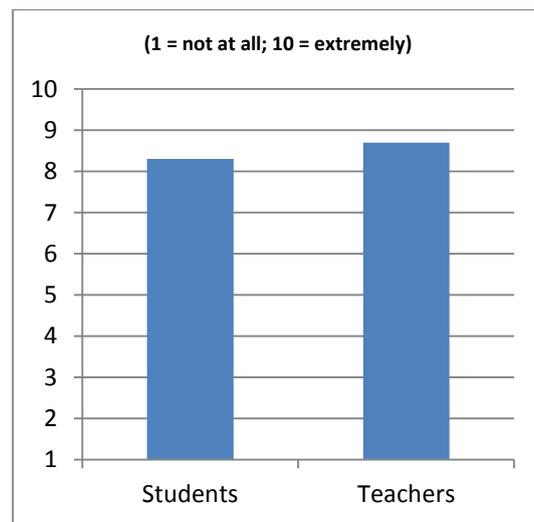


Figure 9. How much did you enjoy this course?

Would you like to do another course on a different topic? The overwhelming majority of students responded positively to this question. More specifically, 89% responded "Yes", 8.4% "Don't know" and 2.6% "No". As for the teachers, 100% said "Yes" (figure 10).

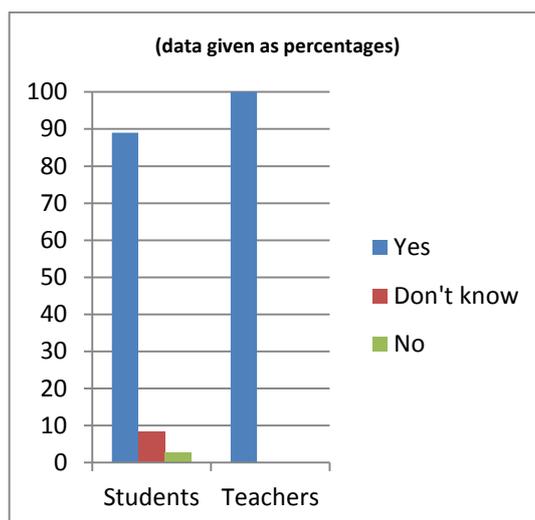


Figure 10. Would you like to do another course on a different topic?

Choose an adjective to describe this course. The two columns of table 2 show the adjectives chosen by students and teachers to describe the course.

Students		Teachers	
Interesting	46.1%	Interesting	44.5%
Educational	22.4%	Engaging	22.2%
Nice	11.9%	Stimulating	22.2%
Important	6.3%	Clear	11.1%
Useful	2.8%		
Other	10.5%		
Total	100.0%	Total	100.0%

Table 2. Adjectives chosen by students and teachers to describe the course

What are the most important things you have learnt from this course? Some examples of answers from students and teachers are given below.

Students. (1) "I have learnt not to follow the crowd, even though it is hard. To reason with my own head and stay clear-headed, whatever situation I am faced with". (2) "I have learnt that when we see someone in trouble we shouldn't think that someone else will help them, we have to help them straight away, because otherwise no one will". (3) "Being heroic does not mean having superpowers. Being heroic means being there for others and helping them, regardless of their gender, age or race". (4) "I have learnt that if someone needs help, we must break the barriers of conformism and be the first to help because a little bit of assistance can make all the difference". (5) "I have learnt that we must always make the difference. We need to help

others and we must not pretend that nothing is happening when faced with emergencies just because we are with other people and we are afraid to act". (6) "The need to help those in need by breaking away from societal norms and by not thinking 'well, someone else who will do it instead of me, I don't want the bother!'".

Teachers. (1) "The research was interesting, I will try to become more aware of certain 'laws' that influence our social behaviour and to free myself from conditioning more. I will try to transmit this knowledge and abilities to my classes". (2) "I have learnt that there is 'negative potential' inside of us and so it is important to be aware of it and to 'train ourselves' with practical actions of assistance and support". (3) "Never be a spectator, not at work or in everyday life". (4) "I have learnt that we must never let ourselves be influenced by the reaction or non-reactions of others".

If in the future you were to find yourself faced with an emergency, how do you think you would behave? Some of the most significant answers from students and teachers in response to this final question are given below.

Students. (1) "I will be the first to stop and try to understand what I can do to help". (2) "I will attempt to keep in mind the fact that I also have a clear responsibility, not just relegating it to those around me". (3) "I think that I would act in the most efficient way possible to help, and I would not let myself be affected by the reactions of others". (4) "I would ask if they needed help, even if this was only simple moral support, because emergencies are not only physical". (5) "I would take charge of the situation and help". (6) "I would act in an independent way, helping as much as possible".

Teachers. (1) "Without a doubt I would remember this experience and the behavioural experiments carried out by academics". (2) "If in the future I were to find myself faced with an emergency, I would react immediately and with determination". (3) "I would intervene and give aid immediately". (4) "I would think about what was the right and appropriate thing to do".

Discussion

The importance of the findings of this programme can, first and foremost, be traced to the significant amount of knowledge acquired by the participants. More specifically, compared to what was recorded at the beginning, the students and teachers demonstrated a deepened understanding concerning the factors that hinder intervention in emergency situations. The

meaning and scope of the results from the "Bystander effect" programme showed themselves in the increased confidence - demonstrated by the participants - concerning their abilities to provide assistance. This is a change in their internal attitude which, of course, while on the one hand will not translate into action for everyone, on the other, it substantially increases the possibility of each participant living in a more responsible way and helping whenever the occasion should present itself.

The data collected through the qualitative questionnaire is also of great interest. The "Bystander effect" programme was held to be very important by both the students and the teachers, being described as "interesting", "educational" and "engaging" (these were the three most common). When we asked them "What did you like about this course?", once again the students and teachers gave very positive opinions, stating, almost unanimously, that they would have liked to take another HIP course on a new topic. The open answers to the two final questions confirm that the participants have internalised the key concepts, as personal responsibility, determination and independent thinking were all central to their reasoning.

Conclusion

The combined results from the "Mindset" and "Bystander effect" programmes clearly illustrate how the HIP educational course, which has been successfully tested in many American schools, is extremely effective within Italian culture also. The objective, at this point, is to extend HIP to other Italian high schools, offering programmes that have already been tested (and, gradually, the rest that have already been developed in the United States) as a supplement to the normal school curriculum. The data which we possess, the enthusiasm of the participants of this first project and the enthusiasm shown in the schools where it was informally introduced, are certainly one of the best starting points.

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Appendix: Photos







Heroic Imagination Project: A preliminary investigation into the Sicilian school setting







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