

UNIDAD EDUCATIVA PARTICULAR JAVIER

MONOGRAPH

How was it possible that Julio Verne had imagined with specific details the creation of machines
and inventions that we use today?

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Acknowledgement

First of all, I want to thank my parents who taught me to choose my tastes properly, essentially to educating myself in a responsible person, capable of himself and above all respectful. To my teachers and tutors for helping me and collaborating in the elaboration of this work, without them it would have been impossible.

Summary

The following monographic work is based on the doubts raised by the author about whether Julio Verne invented each of the inventions, machines and various devices mentioned in each of his works or had some kind of advice prior to the development of them. That is going to be dealt with in Chapter I, entitled "Antecedents". As his name mentions it, Verne's background is explored to elaborate a theory about whether he really helped with real data or even drafts of inventions. It is discovered that Verne had help and the inventions were theories or rumors of science at that time to be elaborated in the future, Verne took that opportunity to "novel science".

In chapter II, entitled "Imagination at the point of paper", it deals with the literary genre in question, being this the Science Fiction, it investigates on the genre, in which it consists, its origins, recognized authors, outstanding works and two famous authors are renamed of the genre, Jules Verne and Herbert G. Wells. Since the chapter was more about the genre on this occasion a survey was conducted to a group of no less than 100 people on their interest in reading, going deeper into science fiction and hitting bottom on Jules Verne.

Finally, the third chapter entitled "Relate", bases what has been learned in the previous chapters to open space for the author to make a hypothesis. This relates the literature of science fiction with science in general, then relates what is posed by fictitious novels with modern engineering and ends with a review of the science written by Jules Verne.

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Introduction

Several of the great questions that have arisen since one learns to read and understand basic concepts of life are everyday and not so simple to answer questions, How? Why? Is it possible? For what is this? Such questions were of importance. These questions that until recently, I found the way to use them and be able to clarify certain aspects that intrigued me with respect to a certain topic. This topic was about Jules Verne and his manuscripts related to the current engineering, but it had to be posed in a somewhat different way, so the big question is: How was it possible that Jules Verne had written ideas with an almost exact determination to the devices that we use today?

Basically, this work was born from the opportunity to investigate something so striking and at the same time educational, since it takes advantage of the fact of having at hand the tools, instructions and motivations for the elaboration of this study. However, it also includes the hunger to know events that took place at different times, in which one would like to have been alone due to the fact that they marked great advances in our society. "The scientist finds his reward in what Henri Poincare calls the pleasure of understanding, and not in the possibilities of application that any discovery can entail". Albert Einstein (s.f)

Reviewing and looking for research, few are those who study Jules Verne and his great achievements, few are those that explain his goal as a writer of literary novels and almost nonexistent those who are interested in relating the works of Verne with the present, that is, literary, scientific, among others. In spite of that, there is abundant information from which you can extract useful fragments for the elaboration of this study.

Finally, the chapters seek to expand this knowledge and reach a final conclusion to the question raised previously. The first chapter deals with the antecedents that occurred in an era that directly and indirectly influenced the character to be treated in this study. Looking for references and possible clarifications of which not everyone was informed. For the second chapter, it tries to explain the way in which said person carries out his research and how he transmits them to the world in such a way that it causes an impact at a social, technological and scientific level. For the third chapter, a survey was conducted to assess the level of reading interest of a certain number of people to know whether or not the same events that helped the development of the character to study may occur, then the relationship of these manuscripts will be investigated with the engineers applied today.

Chapter 1

Backgrounds

1. Previous investigations

Jules Verne is known worldwide as one of the forerunners of the science fiction genre. Many believe that, due to his exorbitant imagination, many of the devices, machines and inventions that are used today come from the head or imagination of a writer of literary novels. After conducting a lush investigation, this work will show that these facts are not entirely true.

Jules Verne was one of the few people who had a great hunger and thirst for knowledge, so he spent most of his time reading and learning about the most important events of his time at an advanced technological level, biosciences and exact sciences. Whenever an idea came to his mind, Julio investigated everything about it so as not to write facts that are not coherent.

“Everything is a mere coincidence, and without a doubt it is due to the fact that even in inventing scientific phenomena I have always tried to make everything look so true and simple as possible.” (Verne, Julio 1895, p. 8)

In the majority of cases, Julio turned to known people or friends who were aware of the subject or were experts in it. They provided him with essential information that was used to emphasize and attract the interest of the reader to the branches of science that started to be explored at that time.

But it was not only the gift of knowledge satisfactory to readers, but Julio was fed again and again with each source of information to which he had access available. Quoting one of his opinions regarding his inspirations: “I can tell you that I have never studied Science, although

thanks to my habit of reading I have been able to acquire knowledge that has been useful to me.”
(Verne, Jules 1895, p. 8)

This confirms that Jules Verne not only used his colossal imagination, but also based on real events and data to perform his literary works. Reaching to a certain level of accuracy the truthful data that is used for the elaboration of scientific projects; going from a science fiction to a new world, full of advances that have as a point of origin those publications that in one way or another, inspired to follow and turn those episodes into a reality.

I am a great reader and every time I read, I do it with a pencil in my hand. I always carry a notebook with me and immediately point out something that interests me or that could be of possible use in my books. (Verne, Jules 1895, p. 8)

Regarding the accuracy of my descriptions I owe that to a great extent to the fact that, even before I start writing a novel, I always make numerous notes of each book, newspaper, magazine or scientific report to which I have access. (Verne, Julio 1895, p. 8)

Verne needed the help of collaborators (as mentioned above) to write his work, for it he used the following people:

Gabriel Marcel: Jules Verne only spoke, read and wrote in his native language, French. Gabriel was an employee of the National Library of Paris, and it provided him with information, books and other necessary sources when the documentation was in another language. “These notes were and are classified according to the subject to which they belong. I do not have to tell you how valuable they have been to me many of them.”

André Laurie: At the time of writing "The 500 million Begum" and "The Star of the South", Jules Verne used Laurie's manuscripts as a foundation, which he rewrote later.

Henri Garcet and Albert Badoreau: They were 2 mathematicians who were the authors of the mathematical operations in the works of "From the Earth to the Moon" and "The Secret of Paul Matson" that turned out to be almost exact to the data of today.

Paul Verne: Julio's brother helped him by giving him information and knowledge regarding maritime life and navigation. A clear example of this is how he describes with such specifications the flora and fauna in his work "Twenty thousand leagues of submarine travel".

J. Hetzel: He was the first reader and critic of his literary works.

1.1. News of the time.

All this happened in the nineteenth century, time in which exploded a movement that would give a drastic change to society and the world as such, the Industrial Revolution. A time in which they explored new and innovative ideas for effective improvement in the industry.

Time in which they began to implement machinery in the factories and the level of employment in mercantile and agricultural sectors was reduced, so that these workers move to the cities and there is a large mass of cheap labor.

This was the historical context in which Jules Verne lived and was an important factor for the writing of his manuscripts. During the middle of the 19th century, ideas began to hover in the news about tests that were given for the invention of one of the many innovative machines of the

moment. That is, the steam engine, being the origin of many means of transport such as the steam locomotive and steam boats.

Later ideas were published to build a means of air transport, driven by propellers in its upper part, or ships sailed under the sea, ships that travel to the lunar satellite and thus an infinity of incredible devices. He said: "I do not consider myself a scientist, but I feel fortunate to have been born in area of remarkable discoveries and perhaps of some wonderful inventions." (Verne, Julio 1895, p.8).

Verne saw a clear opportunity to turn this incredible knowledge into something of popular scope, and what better way than to transcribe everything he heard and informed to the literary medium, this was his true work; to novelize science. Thanks to this, Julio Verne wrote a series of books called "Extraordinary Travels". In the next chapter it will be explained in more detail about these books and the complete collection.

1.1.1 Advances in scientific technology.

But what really interests us is the following ideas of machines that were still something impossible to build at the time described:

Isaac Peral built the first electric submarine in 1888, based on an electric traction weapon that sailed under the sea surface, an idea similar to the Nautilus of "Twenty Thousand Leagues under the Sea," written by Verne in 1870.

Another device taken from the same literary work was photographing under the sea from the Nautilus. The invention was created by Louis Boutan, pioneer of underwater photography in 1899.

This time Verne went beyond the human imagination, making a trip to the satellite of the Earth planet, the Moon. In his work "From the Earth to the Moon" (1865) he tells how his characters built a ship driven by rockets, also calculating the speed needed to leave the atmosphere.

This could not be possible until 1969 (104 years later) when the United States sent 3 crewmembers of the Apollo 11 mission to take the Moon. The information provided by the work coincides 95% with the real data even in the structure of the ship.

Chapter II

Imagination to paper tip

2. Literary genre: fiction

It is known as fiction something unreal, or trying to simulate reality in a fantastic way. For this, the characters submit to certain adventures through the plot to obtain an achievement or achieve a common goal. In general, strange things happen to these characters, out of the ordinary, events that should not happen. This means that in that reality, natural laws that are known may or may not exist.

Usually, in this literary genre are presented abnormal ideas such as: that humans can fly naturally, that animals have a human personality, the existence of extraterrestrial life and so endless ideas full of imagination, fantastic ideas. “Sometimes people talk about conflict between humans and machines, and you can see that in a lot of science fiction. But the machines we're creating are not some invasion from Mars. We create these tools to expand our own reach”_ (Kurzweil, Ray, sf.).

It is also known as the literature of anticipation, since most of the objects or situations raised in these works over time were taking in certain aspects, similarities with reality, but always existing a barrier that differentiated or surpassed them. It is characterized by presenting scientific debates, social, political, uncertain to a not so distant future by telling a story that involves the characters in fabulous adventures with their respective dangers or consequences, in order to seek an answer. “Science fiction is any idea that occurs in the head and doesn't exist yet, but soon will, and will change everything for everybody, and nothing will ever be the same again”_ (Bradbury, Ray, sf.).

Its skeleton is the essence of the unknown, the hunger of doubts and the questioning of the existence of the things we know, following the context and its impacts on humanity. This context is developed in an imaginary environment so that the author is free to develop his ideas and mold a story. There are authors who create their stories without the previous scientific research for the elaboration of the manuscripts, calling this soft science fiction, while there are those who do an exuberant search, called hard science fiction.

While it is known that science fiction encompasses an infinite range of fantastic ideas, its main plots are based on:

- Cloning
- Genetic engineering
- Travels in the time
- Beings of other planets
- Conquest and colonization of planets
- Artificial intelligence and robotics
- Advances in technology

Many people have questioned about who was the father of the genre of science fiction, having candidates like Luciano de Samosata, Mary Shelley, Hugo Gernsback, Isaac Asimov, Lloyd Alexander, Robert Adams, Ray Cummings, Stephen King, Edgar Allan Poe, Edward Bellamy, Ray Bradbury, Douglas Adams, and many others, this is reduced to two names that were growing in parallel, being these Jules Verne and Herbert George Wells. Both characters are

considered the forerunners of science fiction, since they practiced peculiar and similar literatures at the same time, but they always had concrete and opposed aspects that differentiated them from each other.

2.1 Fiction by Jules Verne.

Leaning on the side of Jules Verne, it can be said that his intention was not to become a writer of fantastic novels, but rather was only a man that due to certain favorable conditions, as the association with a renowned editor in that time, plus the pressure of the same and a loving public of the unknown, made to his literature take form of what we now call science fiction. "As soon as you have an idea that changes some small part of the world you are writing science fiction. It is always the art of the possible, never the impossible" (Bradbury, Ray, sf.).

Jules Verne saw a possibility to publish his research in texts by writing works that go beyond the imagination that a man can think. That is why it had a great reception of readers over time. Since its inception, it has attracted the attention of crowds of people interested in the advanced sciences that were being born at that time. "There is no question of serious future here, no criticism that does not seem like a caricature already made and remade" (Verne, Jules, sf.).

The different works of Jules Verne show a great exponential of fiction in what is developing in the plot, fiction at that time, reality for these times thanks to technological advances. We have almost 60 text units, from which we can extract some examples. "The vertiginous pace of scientific advances makes science fiction authors get more material more easily, but it also makes it harder for them to predict the future" (Ariza, Luis Miguel, 2012).

2.1.1 Works of Jules Verne.

Twenty thousand leagues of submarine travel tells a short story about a city in the depths of the ocean called Atlantis, in addition to a mythological creature called Kraken. In A Journey to the Center of the Earth, it is mentioned that it is possible that there is an entrance to the core of the earth by a volcanic cavity, where in the nucleus there is life, living beings that on land or surface have already been extinct and that one or the other way they survived in this unusual habitat.

However, the main thing is that Verne "brings the novelty of electric power, which moves the machine," says Moreno. We are in the second third of the 19th century, and the applications of electromagnetic phenomena, well described from the theoretical point of view, were not yet known. (Moreno, Manuel 2012)

Taking one of the thousands of examples, is the machine that could transmit text messages and multimedia (images). This was mentioned in Jules Verne's Paris of the 20th Century. Now, it is very easy to access this tool because with the advance of the technologies people can do it from their cell phone.

The science fiction method is dissection and reconstruction. You look at the world around you, and you take it apart into all its components. Then you take some of those components, throw them away, and plug in different ones, start it up and see what happens.... (FREDERIK POHL, Locus Magazine, October 2000)

A survey was carried out to a certain number of people, both students and professors, in which the level of reading interest, knowledge about the author Jules Verne and his possible influence on people was evaluated. This is a bonus or a plus, which has been added to be able to draw

conclusions at the end of the research work. The results as expected were very random, that is, there is no possibility of setting a response pattern but very predictable answers were given.

As a simple appreciation, it is observed that 60% of the people surveyed like to read, but only 40% practice it, this means that the remaining 20% see it as an unusual alternative activity or to be used in the future. 40% of the total does not like to read, let alone practice reading. Only with this information, a superficial analysis is made that shows the interest of people for reading books. From the people who read, 87% have at least 5 books in their home. And of these the vast majority buys them, thus contributing to the work of an author economically.

Based on the 60% mentioned, 34 people like to read science fiction works of a techno scientific nature. This suggests that there is still a passion for reading science in literary texts. The results show that at least half of the respondents know at least one science fiction author. These same know who is or have heard of Jules Verne, unfortunately, not everyone likes their jobs. In addition, a list of Verne's works was proposed, so that the works they would like to read are selected, these being the two most voted: Trip to the center of the Earth and Around the World in 80 days.

Although the results were not entirely favorable for the research, in the end two reflection questions were asked, in which the most important was: Is it possible that the works of Jules Verne may or may not influence the life of a person? In 39% the respondents answered that if possible, 23% opted for the no and 37% left in one may be possible as not.

Chapter III

Relate

3. Science-literature

Can logic, reason and demonstration relate the imagination? Bringing this idea to clear examples such as scientific research methods, these are considered creative works, which at first were crazy ideas by a person willing to challenge the unknown and set a proper order. There are many examples in which you can appreciate the relationship between science and literature. Starting from the times of the philosophers of Athens.

The well-known Aristotle, Socrates and Plato were the ones who dared to investigate nature as an object of proof to satisfy their needs to explain the events that occurred in the universe. Both subjects, science and literature, are considered as extensive fields of knowledge, sharing the goal of investigating, discovering, exploring, interpreting the space or place where they are located. In its own way, the man of letters is also an observer, organizer and communicator of the experiences that occur in nature, culture and language. "(Huxley, Aldous, s.f)

Literature expresses science in literary works made by authors known worldwide, an example Jules Verne, in addition to Isaac Asimov, among others. "The scientist observes (...) then looks for operative definitions of his concepts of the world, tries to prove through observation and experiment that his conclusions correspond to certain aspects of what happens out there (...) (Huxley, Aldous, s.f)

These subjects serve two entities, intelligence and emotions. On the same plane, the writer absorbs you in an imaginary, fantastic world, while the scientist seeks to decipher the real world under any circumstance. However, the best works of the authors usually focus on deeply

observing reality as such, and the great scientific discoveries rewrite the limits of the human imagination, proving that there are many possibilities that both areas intersect in more than one chance.

Despite this, great writers like Roland Barthes, C.P. Snow, think that literature only uses science as content material, but not as a means by which to expand the most recent knowledge; On the other hand, they believe that science sees literature as a simple instrument that can describe the universe as such. After all, they end up contradicting, since if they show evidence of a quite complex and complementary relationship.

3.1 Science (fiction) –engineering.

To understand in a simpler and somewhat simplified way, the study will base the engineering as the application use of the technologies, being these the final product of the engineer as such. Starting from this, it is very important to bear in mind that the beginnings of science fiction were as such a simple literary genre, with time, acquired bases based, reaching the concept of a "science almost science".

The applied engineering in technological tools of the communication and electronics, focuses the essence of the science fiction for the development of new tools as well as the implementation of new methods for the improvement of the use of technological machines. In addition, it is about relating the ambitious dreams of the man of past centuries for his great interest in traveling long distances and faster and faster. Here apply the discoveries of later years in aerospace engineering as it is known today, antimatter, and travel through space at the speed of light, the transposition of space and an infinity of theories raised.

All this is related to ideas that began as a stupidity, which then welcomed interest and ended up becoming one of the great achievements that science has been able to achieve. "After all, what is a scientist then? He is a curious Man who looks through the eye of a lock, the lock of nature, trying to know what is happening. "(Jacques Yves Cousteau, s.f)

To emphasize, science has always had the challenge of being able to achieve the famous journeys in time, originating from the literary novels of authors of the science fiction genre. All branches of science have worked for years to make this happy, complex and no less dangerous discovery, as it delves into matter that even the human fails to understand. The engineer in mechanization and others have worked together with the great scientists to streamline results but, we are not yet in the era in which this feat can be done.

3.1.1 The science that Verne wrote.

As the study demonstrated, Verne exposed the advances by writing his manuscripts. Jules only exposed the work of the true developers of the inventions, or more clearly, exposed what was coming for the future for humanity. Apart from investigating only the latest discoveries of his time and making them known, he also focused his writings as a work to teach the most ambitious explorers and seekers of new things.

The relationship that exists between the works of Jules Verne, the events of his time and the application of these writings and their great similarity with current science notes, is nothing more than communicative, that is, Jules Verne only served as a communication channel between science and literature.

Conclusions:

At the end of this monographic work, it is concluded that:

- It is demonstrated with convincing evidence that Jules Verne was not really the creator of these inventions assigned to his name, since in almost all of his works they were inspired by scientific advances of science pointing towards the future.
- The authorship of the data written by Verne, scientific notes, theories, descriptions, among others, is denied, since all this was a tool granted to Verne by his friends and acquaintances who helped to enrich the literary work.
- The work exposes the reality that Jules Verne was not the only father of science fiction, since there is also the renowned author Herbert George Wells, who wrote really good literary novels, even comparing himself with Verne. Nevertheless there are rumors of plagiarism on the part of Wells towards Verne, but it was denied years later.
- Before Jules Verne, there were other authors who followed the same fantastic format of writing, but at the time they were not considered science fiction authors, since at that time there was no such genre.
- Background shows that some works of Verne did not see the light because his editor rejected these works for various reasons, one of them, is that he did not approve the content exposed in the work for being very "lazy". This was at the beginning of his career as a writer of fictional novels.

- According to the results obtained by the previously conducted survey, people do not reach the level of interest for the expected general reading, since at least 40% of the respondents show an average interest, the rest do not like to read as much or in critical cases, 0% interest.
- It is exposed that Verne was developed over the years as a fictitious novelist, that is, he grew up as a writer with the help of his editor, the news, the advances, his friends who were his source of inspiration for the creation of the famous manuscripts that today society admires.
- It is shown that fictional techno-scientific literature can be related to reality itself. As a proof of this is the works exposed in the writings of Verne and the passage of time, that with the given advances, inventions, machines and diverse devices were developed that Verne had already imagined how they would be in the near future.

Recommendations:

- It is recommended that people read at least one book a year to begin, then increase that amount and reduce the time. Reading is an entertaining activity and if one puts emphasis on it, it is much better since one imagines how the story unfolds.
- Investigate blogs thoroughly about writers with a good source, since anyone can invent the stories. I add that you should look for as many sources as possible to corroborate the information and make a good foundation of the work.
- Research papers on literature are one of the simplest and most informative that one can do, since you learn more and research becomes easier if one masters the subject perfectly.
- As mentioned above, if one is not sure that the information is true, consult with external sources to the internet, a specialist of the subject, who has the indicated experience to solve any type of doubts raised in the development of the investigation.

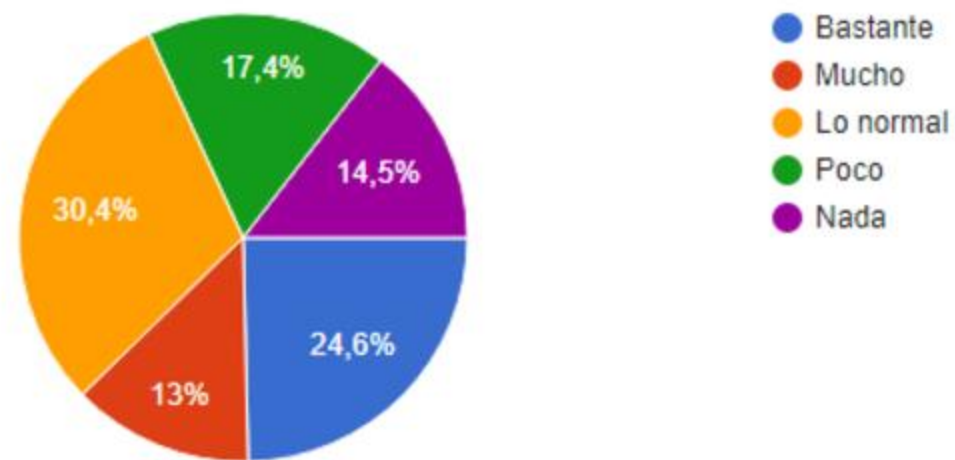
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Attachments

¿Que tanto le gusta leer?

69 respuestas



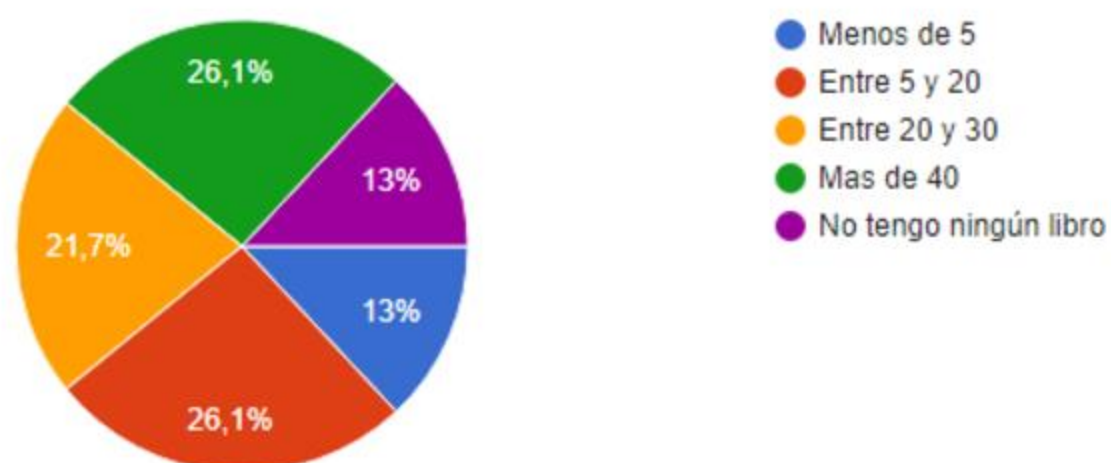
PICTURE 1

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

¿Cuántos libros tiene en casa?

69 respuestas



PICTURE 2

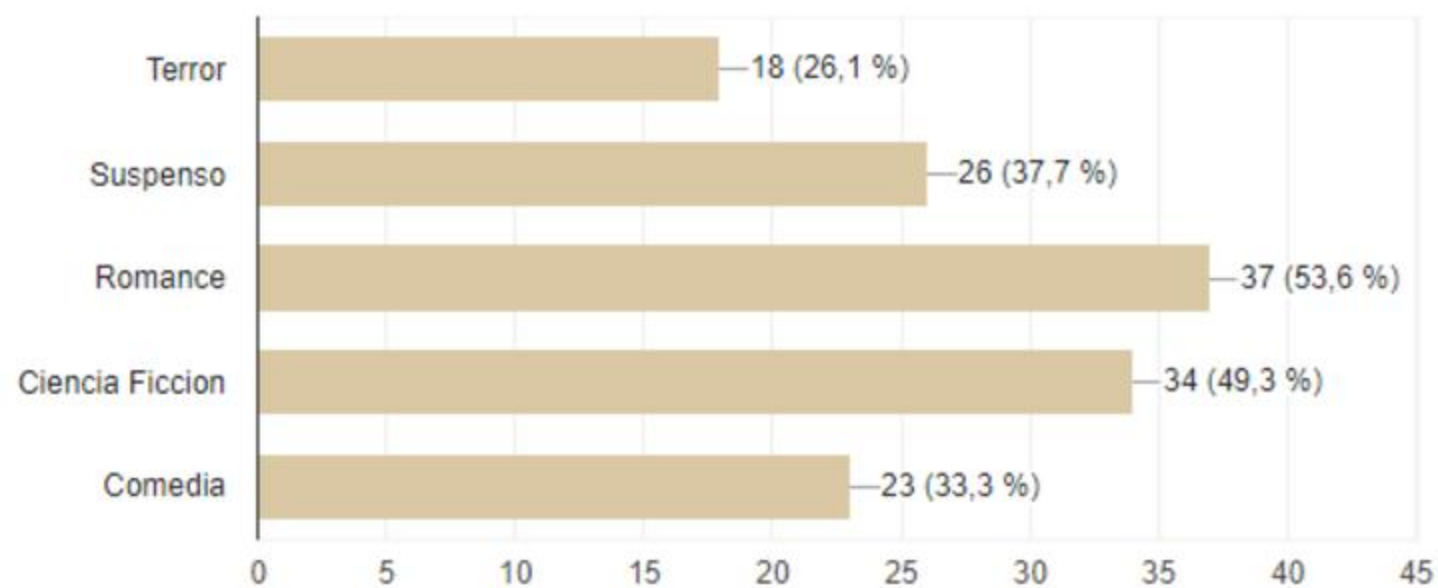
Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

¿Que géneros le gusta/gustaría leer?



69 respuestas



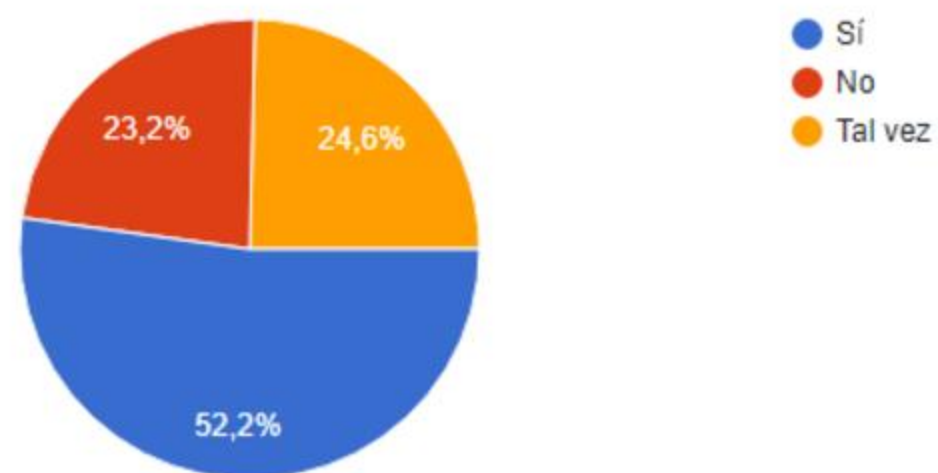
PICTURE 3

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

¿Le gustaría leer libros de Ciencia Ficción?

69 respuestas



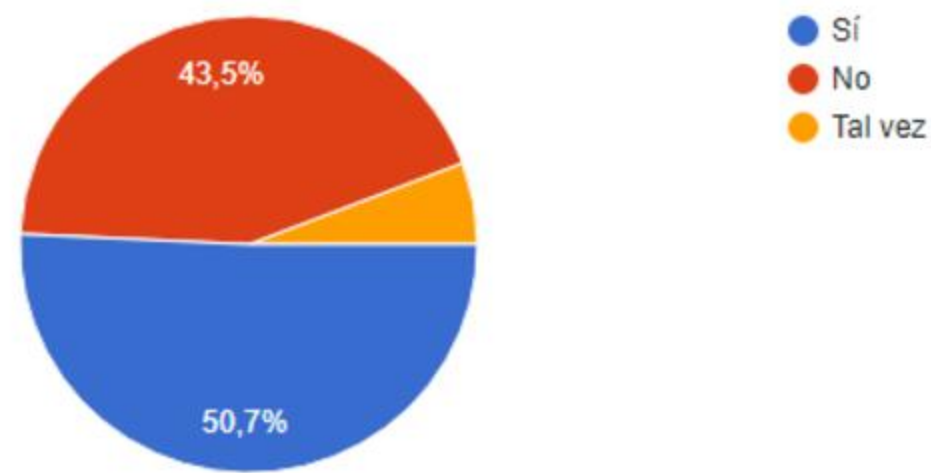
PICTURE 4

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

¿Conoce usted algún autor de libros de Ciencia Ficción?

69 respuestas



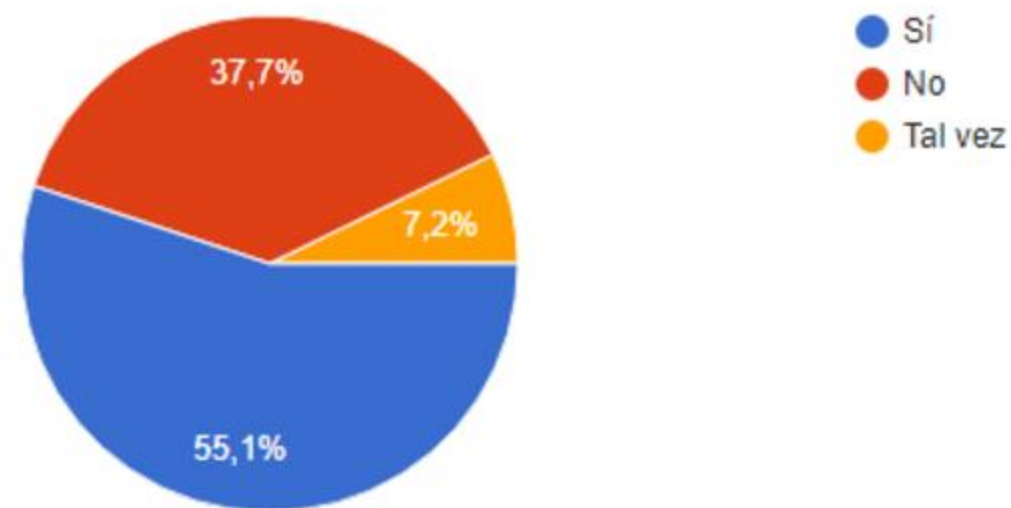
PICTURE 5

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

¿Sabe usted quien es Julio Verne?

69 respuestas



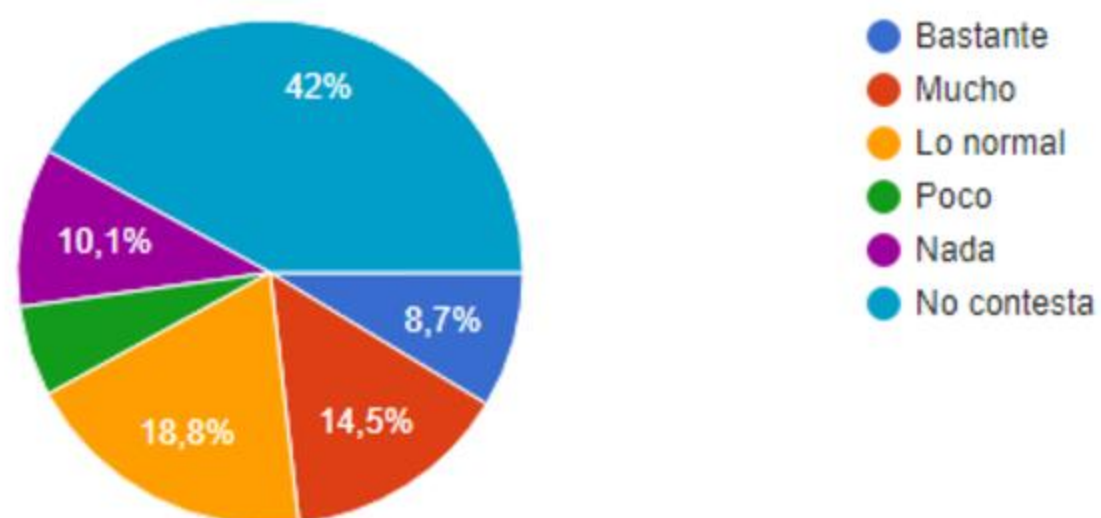
PICTURE 6

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

Si su respuesta fue si, ¿Que tanto le gusta las obras de Julio Verne?

69 respuestas



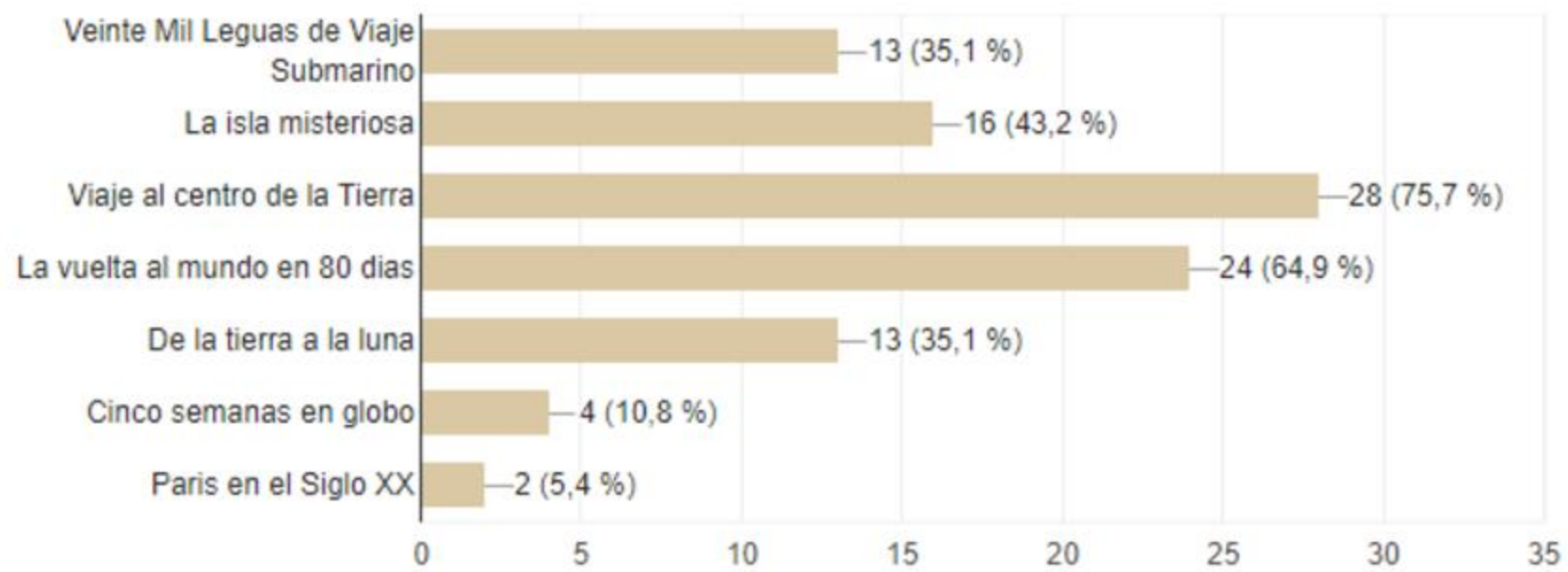
PICTURE 7

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil

Si su respuesta fue si; Indique cuales de estas obras ha leído o conoce.

37 respuestas



PICTURE 8

Survey about the interest in reading for high school students

Source note: high school teens from different schools in Guayaquil