

Impact study

JUNIOR ACHIEVEMENT FOUNDATION



LONGITUDINAL STUDY

Four years measuring the efficacy of Junior Achievement Programmes



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On behalf of Junior Achievement Europe, I'd like to con-gratulate Junior Achievement Spain for having completed an important study of the impact which our educational pro-grammes have on young people.

Robust impact measurement studies such as this one analysing the benefits of entrepreneurship education for youth people are essential to mobilize the necessary resources to train more young people in Europe.

In the current times we live in, we need all possible tools to provide young Europeans with entrepreneurial opportunities that have an impact on both their own lives and their communities.

Based on the data collected in this study, we can demonstrate to educators, policy makers, businesses and other stakeholders that young people's entrepreneurial and job creation capacity is enhanced by increasing their entrepreneurial education through Junior Achievement's methodology. What this Longitudinal Study also confirms is that when young people have real entrepreneurial experiences during their formative years, the number of start-ups by young Europeans increases.

On behalf of the young people and the communities we serve, we are enormously grateful to Junior Achievement Spain for leading the way. ▲

Salvatore Nigro,
Managing Director of Junior Achievement Europe



At Junior Achievement we are very happy to be able to share with all of you the results of the Longitudinal Impact Study on which we have worked with dedication for the last 4 years, whose methodology and development has been carried out by Ildfonso Méndez, Director of the Center for Studies in Non-Cognitive Skills and Economic Evaluation of the University of Murcia.

In line with our goals of innovation, adaptation and

constant improvement, we've prepared this Study to measure the real impact of our work on the youth who attend our programmes and to continue adapting to their needs and fulfilling our educational mission: To inspire young people to succeed and to achieve their goals in a global economy by awakening their entrepreneurial spirit, providing them with the tools they need to thrive in the workplace through financial education.

This is an innovative Study that posed a challenge which we have undertaken with perseverance and hard work. This document is the end product of our analysis of the organisation's results, where we share with you not only the changes in the young people who attend our programmes but also what we have learned in the process. This is a groundbreaking measurement that shows the key points towards which education should be directed. It demonstrates the importance of developing non-cognitive skills from an early age because these are the skills that will enable young people to achieve their goals. We want to prepare young people for a better future, and this study sheds light on achieving goals.

Thanks to all the schools that have supported us in this project, to all the companies that have placed their trust in us and to all the volunteers who have made it possible. With this study we reaffirm our commitment to continue at the forefront of education, adapting to the needs of young people and offering them quality training. ▲

Lucía de Zavala,
Managing Director of Junior Achievement Spain Foundation



1. Project presentation

This Impact Study has been carried out by Ildefonso Méndez, Director of the Center for Studies in Non-Cognitive Skills and Economic Evaluation of the University of Murcia and consultant to the OECD on educational matters, on behalf of the Junior Achievement Foundation.

Ildefonso Méndez- Universidad of Murcia

Master's degree in Economics with honours from the Universitat Rompeu Fabra, PhD in Economics from CEMFI and Associate Professor in the Department of Applied Economics at the University of Murcia. Principal investigator on projects funded by the Ramón Areces Foundation, the Seneca Foundation and the Ministry of Economy and Competitiveness, among others. His research interests focus on the economics of education, in particular, non-cognitive skills. He has published scientific articles in leading international journals and has worked as a consultant to the OECD on educational issues. He is the Director of the Centre for the Study of Non-Cognitive Skills and Economic Evaluation and Professor of Non-Cognitive Skills and Social Inclusion at the University of Murcia.

From both institutions he has promoted research on the role of non-cognitive skills in general and executive functions, in particular in the cognitive, emotional and social development of children. Principal investigator of the educational project Educate To Be (Educar para Ser), present in more than 100 schools in Argentina, Costa Rica, Spain and the United States of America. Educate To Be has demonstrated to effectively improve the self-regulation skills of boys and girls from early childhood to the end of secondary education. ▲

Junior Achievement Foundation

Junior Achievement is one of the world's largest non-profit organisations dedicated to promoting entrepreneurship, financial literacy and labour-related orientation for young people. Through innovative education programmes and real-life professional experiences shared by volunteers, Junior Achievement equips young people with the tools they need to take action and achieve their goals. Every year, 12,419,320 young people from over 120 countries attend our programmes.

Created in Spain twenty years ago, in 2001, the Foundation has an educational plan developed by experts and focuses on young people from 7 to 30 years of age. These educational programmes are based on the "learn by doing" methodology that allows young people to learn through real life experiences, guided by volunteers, professionals who are willing to contribute to the education of these young people in values, attitudes and entrepreneurial spirit. In addition, they motivate students by offering them a glimpse into the real working world, developing their confidence, creativity and entrepreneurial intelligence and bridging the gap between the educational and professional spheres. The Foundation currently offers its programmes in public, state-subsidised and private schools thanks to the collaboration of numerous companies and institutions.

During the 2019-2020 school year, the Foundation delivered a total of 3,057 educational programmes benefiting more than 28,900 students nationwide thanks to the collaboration of more than 1,900 volunteers. Despite the situation caused by Covid-19, the Junior Achievement Foundation fulfilled its educational mission by adapting all its educational programmes to an online format in order to continue to support young people and allow them to continue their education. ▲

* Junior Achievement's activities are considered Best Practices by the European Union.

2. Introduction to the longitudinal report: four years demonstrate our impact



For four years we have worked tirelessly to compile surveys and results from more than 12,400 students from all over Spain attending 382 educational institutions (public, private and state subsidised schools, universities, day centres and reception centres) which have supported us and opened the doors of their classrooms to allow us to measure the impact of 14 educational programmes of the Junior Achievement Foundation covering all educational levels from primary to university education.

This report, a compilation of the results of our work, aims to share not only the main conclusions but also the lessons learned along the way.

One of the most innovative aspects of this report is its longitudinal approach, which is presented here for the first time thanks to the yearslong monitoring to assess the impact of the Junior Achievement Foundation's educational programmes on students.

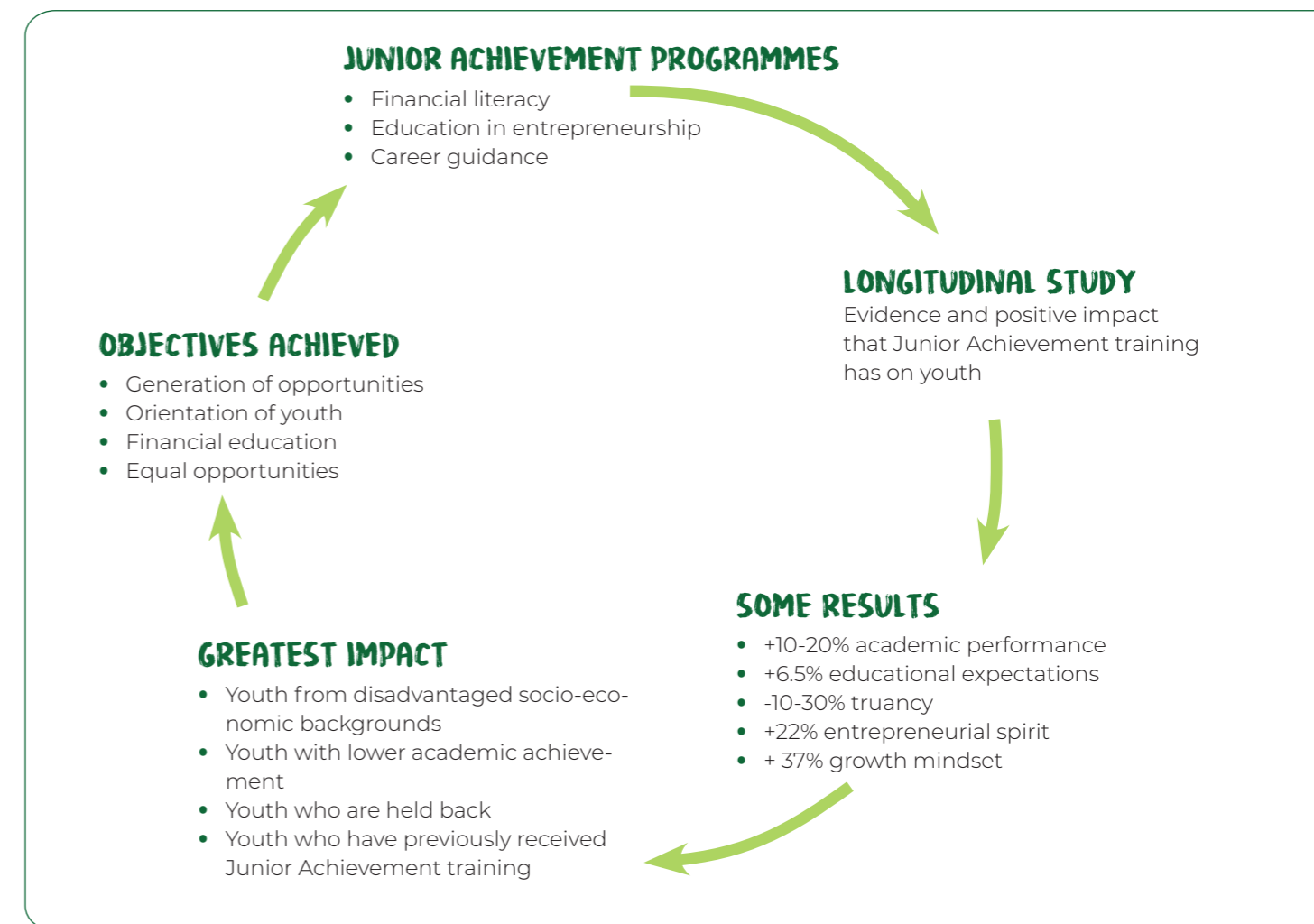
2.1. Background and justification

From a **continuous improvement perspective, the Junior Achievement Foundation has been conducting this research project** for the last four years in collaboration with the University of Murcia. Over the years, annual results were obtained from the evaluations. For example, a report was published for the 2016-2017 academic year (fundacionjaes.org/estudio_impacto) with the aim of sharing and presenting these annual results.

Thanks to these evaluations and our research, there is scientific evidence to support the long-term effectiveness of our programmes and this allows us to design high-impact educational programmes. This study analyses the real effects on the student beneficiaries of these educational

programmes and the Foundation's global activities both annually and longitudinally. The longitudinal results are shared in this report for the first time.

This type of evaluation is possible because the programmes have a number of common, cross-cutting features. Some of these common features include the **"Learn by Doing"** methodology used by the Junior Achievement Foundation or **the cross-cutting work on non-cognitive skills and executive functions**. Non-cognitive skills are those which are not related to the acquisition of theoretical knowledge, such as autonomy, the capacity for personal initiative or leadership, the capacity to make, manage and plan decisions, critical and creative thinking, flexibility and adaptation to context and change, teamwork, and the possession and reinforcement of values and attitudes in line with ethics and society, etc.



This research is therefore intended to provide scientific evidence to support the benefits of Junior Achievement's methodology and programmes, highlighting the importance of education for developing these skills, which are ultimately what will ensure the well-being and happiness of our young people.

2.2. What is a "longitudinal report"?

It is a scientific research method in which the same group of people is followed over a period of time, in this case, four years.

This type of study gathers information on the same child or young person over several years, making it easier to identify and assess causal effects more precisely. Specifically, this longitudinal approach makes it possible to observe the changes that students experience as a consequence of their participation in the Junior Achievement Foundation's educational programmes and how these changes persist over time, thus proving the effectiveness of these programmes.

Some of the aspects that characterise a longitudinal study such as this one are as follows, among many others:

- The same group of people is followed over a long period of time.
- It is possible to observe intra-individual differences (in the same individual).
- The groups of people are not homogeneous.
- It is scientifically rigorous, identifying the effects of the Foundation's programmes once the specific characteristics of each student have been ruled out. Thus, the estimated effects can be extrapolated to the whole population of students with the certainty that it is not due to the specific sample that was studied.
- This is the method recommended by experts for the evaluation of human development.
- Very useful for establishing strong cause-effect relationships.
- The variations observed are independent of factors that remain static in both the student and the family and school environment.

In short, using a longitudinal research method ensures that the results presented in this report are as robust and scientifically sound as possible, and hence that the effects of Junior Achievement's educational programmes are sustained over time.

* "Learn by doing" is a practical and active methodology where the students are the protagonists of their own learning, allowing them to develop critical thinking, creativity, argumentation, effective communication, teamwork and self-evaluation skills, among others.

2.3. How do we do it? Methodology used

This research on the impact of the Junior Achievement Foundation's programmes began in the **2015/2016 academic year**. Over the last four years, more than **24,900 surveys of students** from different Spanish provinces were analysed, evaluating a total of **14** different **programmes** through surveys completed before and after the specific training.

The survey results demonstrate the impact that the Foundation's educational programmes have on the young people who take part in them, i.e. the cognitive and non-cognitive changes that occur in the students. The surveys ask questions that allow us to analyse the importance placed by students on a series of qualities or values related to the non-cognitive skills on the list analysed by Méndez (2014), which is **based on the World Values Survey**, such as **civil capital**, where students are asked to assess whether behaviours such as cheating on an exam or taking the bus without paying the fare are appropriate. It also includes questions related to their **socio-economic context, academic performance, educational and job expectations** or the number of unexcused absences from school. This allows us to measure the dropout rate or entrepreneurial spirit, essential indicators in the Foundation's mission.

At the same time, secondary databases were analysed to learn about the behaviour of young people who have not participated in the Foundation's programmes, serving as counterfactuals to those who have partici-

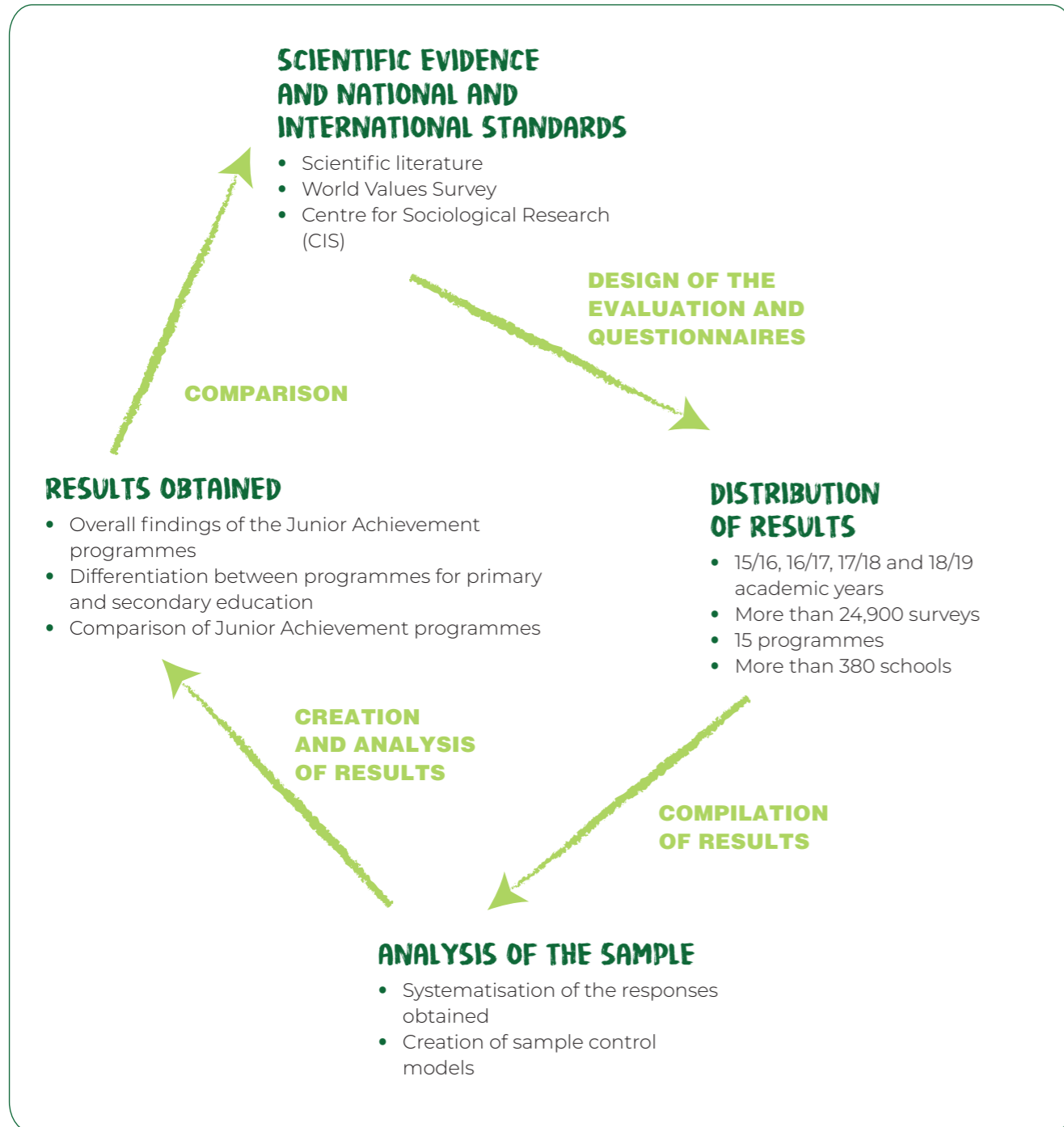
pated. An example of the various statistical tools that minimise possible measurement errors are studies 2440 and 2753 by the **Spanish Centre for Sociological Research (Centro de Investigaciones Sociológicas, CIS)**, which report on the opinions held by young Spanish people aged 15 to 19 regarding certain qualities that represent non-cognitive skills and how admissible some responsibility-avoiding behaviours are seen to be. We selected young people from the CIS studies whose sociodemographic characteristics are similar to those of the participants in the Junior Achievement Foundation's programmes **as a way of comparing the differences between students who receive this training and those who do not**.

More specifically, the causal effects were identified at the level of the group of JA participants, given the impossibility to identify them on an individual level in this type of evaluation.

It should be noted that only statistically significant effects are relevant and can be replicated. Therefore, in order to make the study even more rigorous and reliable, only effects with an incidence of at least 5% were considered.

The novelty of the study we are presenting this year compared to those from previous years lies in the fact that this is the first time we were able to use a longitudinal fixed-effects approach, where we use the information for the same students gathered over several consecutive years to identify causal effects more precisely. More specifically, over time this periodic information allows us to identify causal effects beyond the individual, family, educational or social characteristics that remain unchanged over time. Without a doubt,

this type of longitudinal study was only possible thanks to a major effort to adapt the questionnaires and to monitor the schools and students over time in order to collect as much information as possible on the same sample of students who, as time goes by, get older and attend other Junior Achievement Foundation programmes.



2.4. Programmes included in the study

This report summarises the results of the longitudinal evaluation of the following 14 educational programmes

PRIMARY EDUCATION

- Our community
- Our city
- Our resources

SECONDARY EDUCATION

- The advantages of staying in school
- Climate entrepreneurship
- Your finances, your future

SECONDARY EDUCATION, A LEVELS AND VOCATIONAL TRAINING

- *Oriente-T*
- How does risk affect me?
- Partners for a day
- Skills for success
- Minientrepreneurships

3. Theoretical framework: non-cognitive skills



The US Department of Education defines non-cognitive skills, also called soft skills, as the “set of social skills, abilities and personal resources independent of intellectual ability”. In other words, they are a person’s attitude, behaviour and character traits. Non-cognitive skills determine an individual’s strengths and the ability to be a good leader in the educational and working world.

Because of their transversality, these skills are developed in all areas of our lives: personal, educational and occupational. Numerous studies point to these skills as the ones that influence the cognitive development of young people, improving their educational and occupational outcomes, and hence their well-being in adulthood.

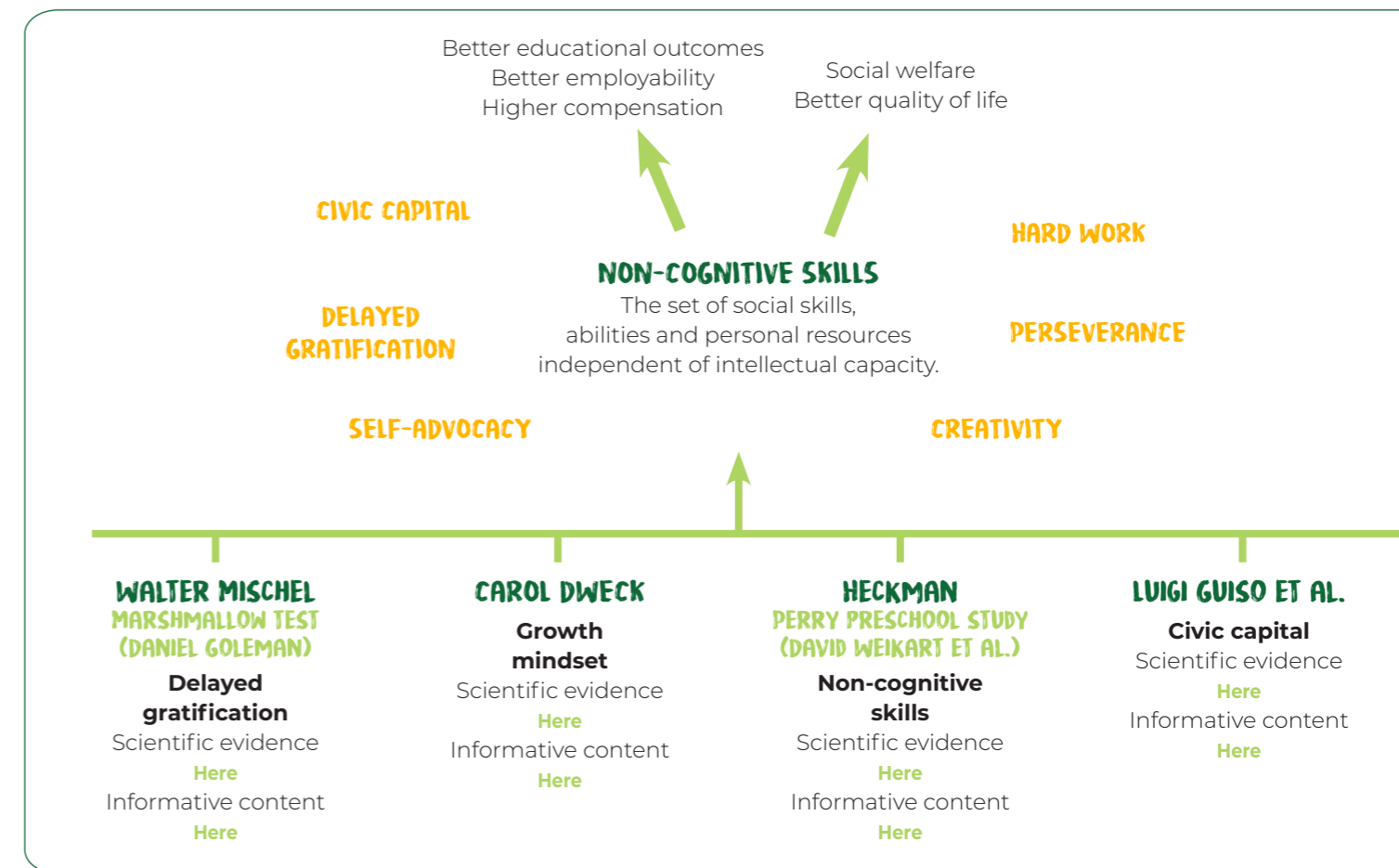
Although non-cognitive skills are innate, they are continuously being developed and shaped throughout one’s life, with interventions being most effective the earlier they begin and the longer they last over time. This is confirmed by the Perry early intervention programme developed in the United States by several authors led by David Weikart and subsequently analysed by different specialists, such as Heckman.

Scientific evidence shows that the circumstances that characterise the early stages of a person’s life condition their achievements in adulthood. Hence the importance of fostering certain skills and aptitudes in young children.

Other examples of the scientific evidence used in this study that confirm the importance of developing non-cognitive skills include:

- The Marshmallow Test analysed by Daniel Goleman, where he demonstrates that the delayed gratification reflected in the seconds it takes a 5-year-old child to eat a candy when encouraged not to do so is a predictor of personal and professional success 20 years later.
- Carol Dweck’s Developmental Mindset Theory, which reinforces the idea that we can increase our brain’s capacity to learn and solve problems. This approach seeks to replace beliefs based on the existence of “fixed qualities,” by encouraging self-motivation and self-esteem, internalising that with practice and hard work they can achieve their goals.
- Luigi Guiso, Paola Sapienza and Luigi Zingales’ analysis of the importance of civic capital and how it is a predictor of economic growth and societal well-being. Moreover, recent studies demonstrate a close link between civic capital and the shadow economy, tax fraud and traffic accidents.

The concept of **executive functions**, so intrinsic to neuropsychological literature is closely related to the concept of non-cognitive skills. Executive functions are mental processes that associate ideas, movements and simple actions and orient them towards the resolution of complex situations (Shallice, 1988). They are conscious, voluntary and efficient processes that coordinate and integrate the more advanced functions of thought, memory, emotions and movement. They are essential for ignoring distractions, concentrating, sustaining effort, persevering, delaying gratification, etc. As Diamond (2013) points out, the basic executive functions are inhibitory control, cognitive flexibility and procedural memory. It is clear that executive functions are related to the non-cognitive skills described as most relevant in the evidence summarised in the preceding paragraphs.



4. Why are non-cognitive skills so important?



Connecting with reality

Among the non-cognitive skills identified as the ones that determine educational and employment outcomes, and therefore the well-being that students can achieve in adulthood, we find **the capacity for sacrifice, delayed gratification, hard work, perseverance, and civic capital.**

Convinced of the importance of working on these skills from childhood in order to achieve greater personal and professional well-being in the future, the Junior Achievement Foundation sponsors educational programmes that encourage the development of these skills.

Below are several examples of the relationship between the early development of some non-cognitive skills and the future wellbeing of the beneficiaries.

IF CURRENTLY...

...non-cognitive skills and ethical values are developed in the present, from the earliest ages...

...students develop the ability to delay gratification by performing tasks that lack motivation and involve effort in order to achieve certain goals (for example, if a student has developed the ability to delay gratification, he or she will study instead of playing at a given time and will also be able to put off until the future the satisfaction of a present desire)...

... students have increased educational expectations and academic performance, raising their awareness of the importance of continuing their education and making an effort now...

...students understand the importance of civic behaviour and are less likely to evade personal responsibility, such as cheating on an exam or sneaking onto a bus without paying...

...students will have fewer unexcused absences from class, creating habits of obligation...

IN ADULTHOOD...

...they will achieve more positive personal and professional results in the future and become more individually and socially responsible people.

...they will avoid procrastination or postponement of their responsibility in their personal and professional lives, such as late delivery of projects or the failure to save for a rainy day. They will also find it easier to work toward non-immediate goals and to manage their personal and family finances and savings.

...they will drop out of school at a lower rate and become professional adults with greater capacity for work and higher job expectations.

...they will have strong moral values that will prevent them from engaging in anti-social practices. For example: tax or insurance fraud.

...workplace absenteeism, which is so damaging to the economy, will be reduced.

After analysing the results of the questionnaires for the youth who attended Junior Achievement training programmes, we observe that all the Foundation's programmes work these skills and obtain positive results in such important aspects as truancy, academic performance, entrepreneurial spirit, personal initiative and access to the labour market, as summarised in the next section of this report.

5. Results of the Impact Study



The skills that Junior Achievement Foundation programmes strive to promote (entrepreneurial spirit, self-awareness, emotional and social skills, flexibility, among others) are clearly and directly related to non-cognitive skills and are essential for concentration, self-control, persevering with a task, etc.

The longitudinal analysis conducted during the 2015-2019 academic years confirms that the Junior Achievement Foundation's programmes, regardless of their length or formal content, have a positive causal effect on numerous dimensions of student development regardless of age, such as educational and entrepreneurial expectations, the way students identify with values or qualities associated with non-cognitive skills, such as hard work, perseverance, imagination, delayed gratification and the rejection of behaviours contrary to the general interest (civic capital) and the belief that effort, not intellectual ability, is what determines our achievements in life (growth mindset).

These are very positive results, since **scientific evidence shows that the development of non-cognitive skills as children translates into higher occupational and overall well-being in adulthood**

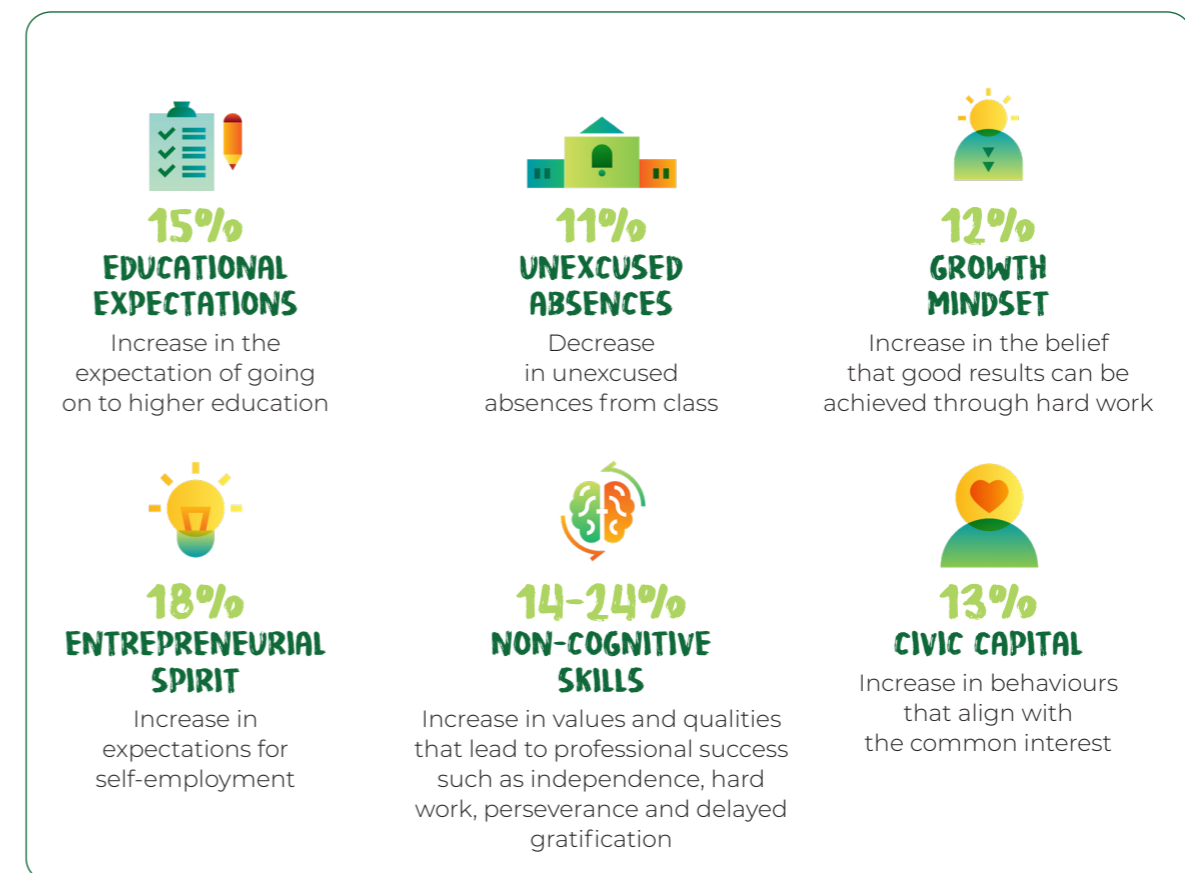
One notable aspect of these positive effects is that they are not limited to bringing about changes in the evaluations or statements that students make or hold, but also in their behaviour and academic performance. For example, participating in a Junior Achievement Foundation educational programme increases academic performance in the three core subjects analysed (mathematics, science and language) while reducing truancy. In addition, in those age groups where it applies, there is a higher percentage of young people helping in the family business without being paid and a higher percentage who have jobs.

The effectiveness of the Junior Achievement Foundation's educational programmes lies in their methodology and their impact on students' non-cognitive skills. The Foundation's programmes are not aimed at reinforcing maths, science or language content or reducing school absenteeism, but rather at working on non-cognitive or self-regulation skills in a context of cooperation. The positive impact on students' non-cognitive skills improves their self-confidence, motivation and effort and, by extension, their academic performance and behaviour.

Another notable aspect is that the programmes usually have a greater impact on students whose parents do not have university degrees, which supports the conclusion that the Junior Achievement Foundation's programmes can contribute to reducing social inequality, having a greater positive impact on young people from less economically favoured households. Analysing these data, we can affirm that Junior Achievement programmes are particularly effective in the fight against **social inequality using education as a tool to create opportunities**.

Finally, this study shows that the Junior Achievement Foundation's programmes improve students' growth mindset regardless of their age, i.e. they identify with the idea that it is effort and not innate intellectual capacity that determines the results obtained in life.

5.1. Overall results



6. Overall conclusions of the impact study



JUNIOR ACHIEVEMENT programmes work: non-cognitive skills development

For the last four years the Junior Achievement Foundation has been conducting a research project on the impact of its educational programmes.

The results obtained during this time confirm the positive causal effects of Junior Achievement programmes on students. They also confirm that the younger the students targeted by the programmes and the more programmes that are delivered, the greater the impact and the multiplying effect.

That is why Junior Achievement has designed a complete curriculum of programmes from primary education to university level education to facilitate the development of non-cognitive skills in a structured and sequential manner from the earliest ages. The Impact Study confirms that the methodology and delivery of these programmes contributes to the development of the participating students' non-cognitive skills.

Following the same students over several years made it possible to gather the information needed to identify causal effects in a more precise way, making the study as rigorous and robust as any study intended to identify causal effects can be.

The longitudinal Impact Study confirms the positive effects on those values or qualities that the scientific literature has shown to promote lifelong well-being, such as perseverance, imagination, delayed gratification, hard work, civic capital or growth mindset.

JUNIOR ACHIEVEMENT PROGRAMMES PRODUCE SOCIAL RETURNS

Scientific evidence suggests that educational programmes, by working on non-cognitive skills, improve students' job prospects and promote their present and future personal well-being.

JUNIOR ACHIEVEMENT PROGRAMMES CHANGE BEHAVIOUR

Junior Achievement educational programmes not only change students' identification with their stated preferences but also have a positive influence on their revealed preferences, i.e. their behaviour. This leads to profound behavioural changes, e.g., reducing truancy and improving their academic performance in mathematics, science or language.

JUNIOR ACHIEVEMENT PROGRAMMES CHANGE MINDSETS

Educational programmes succeed in improving students' growth mindsets by encouraging them to identify with the idea that it is effort, not innate intellectual ability, which determines life outcomes.

JUNIOR ACHIEVEMENT PROGRAMMES HELP TO REDUCE SOCIAL INEQUALITY

Educational programmes typically have a greater impact on young people from economically disadvantaged households, which helps to reduce the opportunity gap between young people from different backgrounds.

**DEMONSTRATED:
JUNIOR ACHIEVEMENT
PROGRAMMES WORK**

Annex I. Programme results



OUR COMMUNITY

Description: A 5-session programme for students aged 8-9 in which they learn how a community functions and their role as citizens and workers.

What students learn: Teamwork and responsible collaboration, reasoned decision-making, financial reasoning and basic operations.

Objectives: To develop the skills needed to innovate and become entrepreneurs.

Results of the longitudinal study of Our Community:

- Increases the probability of students wanting to go to university by **38%**.
- Increases the probability of wanting to be self-employed by **24%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**23%**), imagination (**35%**), perseverance (**17%**).
- Reduces by at least **32%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **8%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **18%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **31%**.
- Improves students' growth mindset by at least **11%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.



OUR CITY

Description: A 5-session programme for students aged 9-10 in which they learn how a city works and how to manage various businesses.

What students learn: Responsible teamwork and collaboration, reasoned decision making, critical thinking and idea development.

Objectives: To develop the skills needed to innovate and become entrepreneurs.

Results of the longitudinal study of Our City:

- Increases the probability of students wanting to go to university by **27%**.
- Increases the probability of wanting to be self-employed by **8%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**14%**), imagination (**39%**), perseverance (**29%**) and delayed gratification (**15%**).
- Reduces by at least **27%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **11%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **14%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **20%**.
- Improves students' growth mindset by at least **17%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.



OUR RESOURCES

Description: A 7-session programme for students aged 10 to 13 in which students create companies that make environmentally responsible and sustainable products.

What students learn: Analysis of consequences and decision-making for environmental protection, teamwork, communication skills and financial literacy.

Objectives: To develop the skills needed to innovate and become entrepreneurs.

Results of the longitudinal study of Our Resources:

- Increases the probability of students wanting to go to university by **33%**.
- Increases the probability of wanting to be self-employed by **16%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**36%**), imagination (**31%**), independence (**42%**) perseverance (**16%**), and delayed gratification (**23%**).
- Reduces by at least **31%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **7%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **21%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **25%**.
- Improves students' growth mindset by at least **16%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.



YOUR FINANCES, YOUR FUTURE

Description: Programme offered in collaboration with the Spanish Banking Association (*Asociación Española de Banca*, AEB) intended to provide students aged 13-15 with the tools needed for financial decision-making and to raise their awareness of the importance of financial literacy and cybersecurity in their lives.

What students learn: Personal financial planning, understanding the importance of saving and responsible consumption, knowledge of digital banking and potential digital fraud.

Objectives: To reflect on the importance of taking responsibility for their own finances and equip them with the knowledge necessary to make sound financial decisions.

Results from the longitudinal study of Your Finances, Your Future:

- Increases the probability of students wanting to go to university by **31%**.
- Increases the probability of wanting to be self-employed by **24%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**17%**), imagination (**18%**), perseverance (**19%**), delayed gratification (**21%**).
- Reduces by at least **21%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **7%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **24%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **15%**.
- Improves students' growth mindset by at least **18%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.
- Increases the proportion of young people helping in the family business without being paid by **7%**.
- Increases the percentage of young people who have jobs by **11%**.



THE ADVANTAGES OF STAYING IN SCHOOL

Description: Over the course of 5 sessions, the volunteer introduces the students, aged 12-14, to a series of cases and situations that will encourage them to reflect on the importance of staying in school, such as drawing up a personal budget or a job search workshop.

What students learn: Reasoned decision making, self-awareness, academic-professional information.

Objectives: To raise students' awareness of the importance of staying in school while discovering key skills for their future

Results of the longitudinal study of the benefits of staying in school:

- Increases the probability of students wanting to go to university by **21%**.
- Increases the probability of wanting to be self-employed by **24%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**14%**), imagination (**20%**), perseverance (**18%**) and delayed gratification (**23%**).
- Reduces by at least **23%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **9%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **14%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **21%**.
- Improves students' growth mindset by at least **11%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.
- Increases the proportion of young people helping in the family business without being paid by **12%**.
- Increases the percentage of young people who have jobs by **8%**.



SKILLS FOR SUCCESS

Description: A 7-session programme for students aged 15-17 focused on developing the **skills** required in today's job market. Students do a self-analysis of their skills, set goals for themselves and learn how to write a CV.

What students learn: Self-awareness, study of skills and interests, effective communication, handling of academic-professional information

Objectives: To equip young people with the skills and competencies the labour market demands.

Results from the longitudinal study of Skills for Success:

- Increases the probability of students wanting to go to university by **12%**.
- Increases the probability of wanting to be self-employed by **18%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**19%**), imagination (**22%**), perseverance (**24%**), delayed gratification (**10%**).
- Reduces by at least **18%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **9%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **7%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **14%**.
- Improves students' growth mindset by at least **13%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.
- Increases the proportion of young people helping in the family business without being paid by **8%**.
- Increases the percentage of young people who have jobs by **12%**.



PARTNERS FOR A DAY

Description: 15-17 year old students **get to see what a real workplace is like** by spending a day with a professional in a sector they would like to be a part of in the future.

What students learn: Teamwork, connection between work and professional careers, analysis of the requirements and opportunities available in a particular professional area.

Objectives: To offer teens an opportunity to get a close-up look at the reality of work, as well as the skills they will need to develop to break into their dream profession.

Results of the longitudinal study of Partners for a Day:

- Increases the probability of students wanting to go to university by **13%**.
- Increases the probability of wanting to be self-employed by **8%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: imagination (**16%**), hard work (**22%**), perseverance (**28%**), delayed gratification (**14%**).
- Reduces by at least **23%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **7%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **6%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **12%**.
- Increases the percentage of young people who have jobs by **5%**.



MINI-ENTREPRENEURSHIPS

Description: Guided by the teacher, students aged 15-19 get to experience entrepreneurial decision-making by creating, organising and managing a company (with real money, products and customers).

What students learn: Creativity, innovation, market research, critical thinking, conflict resolution, team management, autonomy, initiative and leadership.

Objectives: To awaken entrepreneurial attitudes, skills and knowledge that will enable students to turn ideas into action and develop the skills required in today's labour market.

Results of the longitudinal study of minientrepreneurships:

- Increases the probability of students wanting to go to university by **27%**.
- Increases the probability of wanting to be self-employed by **32%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: perseverance (**27%**) and delayed gratification (**32%**).
- Reduces by at least **18%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **10%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **13%**.
- Improves by approximately **25%** the levels of perseverance for tasks that lack intrinsic motivation.
- Increases the proportion of young people helping in the family business without being paid by **4%**.
- Increases the percentage of young people who have jobs by **8%**.
- Increases the probability of wanting to be self-employed by **13%**.



ORIENTA-T

Description: A benchmark space for career guidance, an open and communicative channel for teens aged 14-16 where job opportunities in STEM careers and women's leadership are shared through inspirational talks and special workshops for students.

What students learn: Creation of meeting spaces that promote career guidance through recorded talks and workshops.

Objectives: To promote self-awareness and decision-making among young people by encouraging them to reflect on their professional future and promoting STEM careers and the role of women in leadership.

Results of the *Orienta-T* longitudinal study:

- Increases the probability of students wanting to go to university by **27%** for girls and **8%** for boys.
- Increases the probability of students wanting to be self-employed by **28%** for girls and **12%** for boys.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: perseverance (**41%** for girls), imagination (**18%** for girls and **9%** for boys), delayed gratification (**21%** for girls and **12%** for boys).
- Reduces by at least **26%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc. The corresponding percentage for boys is **12%**.
- Increases boys' academic performance by at least **4%** in mathematics, science and language, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers. The corresponding percentage for girls is **9%**.
- Reduces truancy for girls by **13%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **24%** among girls.
- Improves students' growth mindset by at least **17%** for boys, that is, the belief that effort, rather than ability, is the variable that mediates the achievement of good results. The corresponding percentage for girls is **29%**.
- Increases the percentage of girls (boys) who want to study a STEM major by **24%** (**8%**). It also increases the positive view of STEM careers and employability by **27%** for girls and **11%** for boys.
- It reduces by **47%** for girls and **14%** for boys their agreement with the statement: "Raising children and taking care of the house is less of a sacrifice for a woman than for a man".
- It also reduces by **47%** for girls and **16%** for boys their agreement with the statement: "In general, boys are better at maths than girls".



HOW DOES RISK AFFECT ME?

Description: Programme carried out in collaboration with the Spanish Association of Insurers and Reinsurers (UNESPA). Over the course of 4 sessions, volunteers introduce students aged 14-17 to a series of cases and situations that will encourage them to reflect on the importance of being able to manage and prevent risk and learn about the attitudes and emotions associated with risk, as well as mutualisation and the importance of saving.

What students learn: Risk management, knowledge of oneself and one's emotions, reasoned decision-making.

Objectives: To raise awareness of the importance of knowing how to manage emotions and attitudes toward risk, while discovering tools and resources for risk prevention.

Results of the longitudinal study of How Does Risk Affect Me?:

- Increases the probability of students wanting to go to university by **8%**.
- Increases the probability of wanting to be self-employed by **13%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**42%**), imagination (**15%**), perseverance (**18%**), delayed gratification (**8%**).
- Reduces by at least **6%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Reduces truancy by **4%**.
- Improves students' growth mindset by at least **14%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.



MANAGERS FOR A DAY

Description: Students aged 18 and older get to see what a **real workplace experience** is like by spending a day with a manager in a sector they would like to be a part of in the future.

What students learn: Teamwork, connection between work and professional careers, analysis of the requirements and opportunities available in a particular professional area.

Objectives: To offer university students an opportunity to get a close-up look at a real workplace and the skills they will need to develop to break into their dream profession.

Results of the longitudinal study of Managers for a Day:

- Increases the probability of wanting to be self-employed by **18%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**9%**) and delayed gratification (**12%**).
- Reduces by at least **9%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **6%** in mathematics, language and science, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **11%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **31%**.
- Increases the proportion of young people helping in the family business without being paid by **19%**.
- Increases the probability of wanting to be self-employed by **8%**.



CLIMATE ENTREPRENEURSHIP

Description: Students aged 12-14 develop an innovative solution to the problem of climate change by capturing their idea in 300 words and submitting their proposals online. The 20 best ideas will be mentored by corporate volunteers.

What students learn: Creativity, innovation, team management, autonomy, initiative, leadership, and respect for the environment.

Objectives: To make young people aware of the importance of the environment by generating entrepreneurial ideas.

Results of the longitudinal study on Climate Entrepreneurship:

- Increases the probability of students wanting to go to university by **7%**.
- Increases the probability of wanting to be self-employed by **5%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: independence (**12%**), perseverance (**14%**), and delayed gratification (**8%**).
- Reduces by at least **7%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **8%** in mathematics with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **13%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **11%**.
- Improves students' growth mindset by at least **26%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.
- Increases the proportion of young people helping in the family business without being paid by **10%**.
- Increases the percentage of young people who have jobs by **5%**.



INNOVATION CAMP

Description: Students are faced with a CHALLENGE: to design an innovative product or service that offers a solution to a real problem. They have just one and a half days to develop a business plan and present it to a panel of judges.

What students learn: Creativity, innovation, communication skills, critical thinking, proactivity, and entrepreneurial thinking.

Objectives: To develop innovation and entrepreneurial skills, to foster creativity and develop the techniques needed to develop a business plan.

Results of the longitudinal study of the Innovation Camp:

- Increases the probability of students wanting to go to university by **6%**.
- Increases the probability of wanting to be self-employed by **8%**.
- Increases the students' identification with qualities that are crucial to personal and social wellbeing: independence (**17%**), perseverance (**21%**), and delayed gratification (**9%**).
- Reduces by at least **11%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Increases academic performance by at least **7%** in mathematics, science and language, with the greatest improvement among students from less advantaged backgrounds and previously lower achievers.
- Reduces truancy by **7%**.
- Improves the levels of perseverance for tasks that lack intrinsic motivation by approximately **19%**.
- Improves students' growth mindset by at least **18%**, that is, the belief that hard work and not innate capability is the variable that counts in the achievement of good results.
- Increases the percentage of young people who have jobs by **5%**.



STARTUP PROGRAMME

Description: Over the course of an academic year, students aged 18 and over develop a business plan, which they then present in a national competition, accompanied by tutors from the universities and advisors from well-known companies.

What students learn: Leadership, creativity, problem solving, communication techniques, entrepreneurial skills and business, social and personal skills.

Objectives: To foster an entrepreneurial spirit and to encourage the training of future entrepreneurs in the university environment.

Results of the longitudinal study of the Start-up Programme:

- Increases the students' identification with qualities that are crucial to personal and social wellbeing: hard work (**14%**), perseverance (**29%**), delayed gratification (**21%**).
- Reduces by at least **12%** the tolerance for behaviours not aligned with the common interest: cheating on an exam, shoplifting, using public transport without paying, etc.
- Improves by approximately **18%** the levels of perseverance for tasks that lack intrinsic motivation.
- Increases the proportion of young people helping in the family business without being paid by **16%**.

Annex II. Acknowledgements

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- Agustín Gericó School
- Aixerrota Secondary School
- Alameda de Osuna School
- Alamos School
- Alauda School
- Alberto Durero Sevilla German School
- Alborán School
- Aldovea School
- Alfonso X El Sabio Secondary School
- Alfonso X el Sabio University
- Aljarafe School
- Almoraima Secondary School
- Alonso Quesada Secondary School
- Alto Almanzora Secondary School
- Alto Guadiana Secondary School
- Alyanub Secondary School
- Amanecer School
- Amor de Dios School
- Andalan Secondary School
- Andel School
- Andreu Alfaro Secondary School
- Andreu Sempere Secondary School
- Anna Gironella de Mundet Primary and Secondary School
- Antamira School
- Antonio Calvin Secondary School
- Antonio Machado School
- Apostol Santiago School
- Arnau Cadell Primary and Secondary School
- Arquitecto Peridis Secondary School
- Arturo Soria School
- Arzobispo Morcillo Private School
- Astorga Secondary School
- Asuncion Cuestablanca School
- Ausiàs March Secondary School
- Autonomous University of Barcelona
- Autonomous University of Madrid
- Ave María School
- Badalonès School
- Balder School
- Baleares Secondary School
- Barrio Simancas Secondary School
- Belén Secondary School
- Bell-lloc del pla School
- Bidebieta LHII Vocational School
- Bienaventurada Virgen María Irlandesas
- Bosc de la Coma Primary and Secondary School
- Brains School
- Calasancio School
- Calderón de la Barca Secondary School
- Campos y torozos Secondary School
- Carabelas Secondary School
- Cardenal Herrera Oria Secondary School
- Carlos Castilla del Pino Secondary School
- Carlos III of Madrid University
- Carpe Diem Secondary School
- Carreño Miranda Secondary School
- Casa de la Virgen School
- Castellet Primary and Secondary School
- Castilblanco Secondary School
- Castro San Miguel Secondary School
- Casvi Boadilla del Monte School
- CEU San Pablo Sanchinarro School
- Ciudad de los Muchachos School
- Clara Campoamor Secondary School
- Claret Barcelona School
- Claret Madrid School
- Claret Segovia School
- Claver Lleida School
- Complutense University of Madrid
- Conde Orgaz Secondary School
- Condesa Eylo Alfonso Secondary School
- Constanti i Perafort Primary and Secondary School
- Corazón de María-Claretianos School
- Corazonistas Vitoria School
- Corpus Christi School
- Divina Pastora School
- Duque de Rivas Secondary School
- Eijo y Garay Secondary School
- El Ave María School
- El Campico Vocational School
- El Carmelo School
- El Espinillo Secondary School
- El Grao Secondary School
- Elorrio BHI Secondary School
- Emilio Castelar Secondary School
- Emperatriz M^a de Austria Secondary School
- Enrique Tierno Galván School
- ESADE University
- Esclavas del Sagrado Corazón de Jesus School
- Esclavas del Sagrado Corazón Multi-lingual Primary School
- Esclavas Tiboli School
- ESIC University
- Espíritu Santo School
- Estudiantes Las Tablas School
- European School
- European University
- Ezequiel González Secondary School
- Federica Montseny Secondary School
- Federico García Lorca Secondary School
- Federico Mayor Zaragoza Secondary School
- Fidiana Secondary School
- Fonte Díaz Touro School
- Francesc Ferrer I Guardia Secondary School
- Francisco de Vitoria University
- Fray Pedro de Urbina Secondary School
- Front Maritim Primary and Secondary School
- Fundación Escuela Teresiana School
- Garbi Pere Vergés School
- García Lorca Secondary School
- Gaudem School
- Gerardo Diego Secondary School
- Gil de Zatico Secondary School
- Gran Capità Secondary School
- Grande Covian Secondary School
- Gredos San Diego Las Suertes School
- Hermanos Machado Secondary School
- Highlands School Sevilla
- Hijas de la Caridad Nuestra Señora de Begoña School
- Hispalis Secondary School
- Hogar del Buen Consejo School
- IES Adolfo Suárez Secondary School
- Infanta Isabel d’Arago Primary and Secondary School
- International School San Patricio
- International University of Catalonia
- IPSI School
- Isaac Newton Secondary School
- Isbiliya Secondary School
- Jaume I Secondary School
- Jesús María García Noblejas School
- Jesús María Juan Bravo Madrid School
- Jesús María Sant Gervasi School
- Jimena Menendez Pidal Secondary School
- Jimenez de Quesada Secondary School
- Joan Coromines Secondary School
- Joan Pelegrí School
- Joaquin Turina Secondary School
- Joaquín Turina Secondary School
- Jorbalán Adoratrices Vocational School
- Jorge Juan Secondary School
- Jose Saramago Secondary School
- José Zerpa Secondary School
- Josep Sureda i Blanes Secondary School
- Juan Bosco School
- Juan de Garary Secondary School
- Juan de la Cierva School
- Juan de Valdés School
- Juan Rubio Ortiz Secondary School
- Julio Verne Secondary School
- Kensington School
- King’s College Soto de Viñuelas
- King’s College Madrid
- La Aljorra School
- La Azucarera Secondary School
- La Corolla School
- La ferreria Primary and Secondary School
- La Inmaculada - PP. Escolapios de Getafe School
- La Jara Secondary School
- La Milagrosa School
- La Salle Arucas School
- La Salle Bilbao School
- La Salle Santiago School
- Laguna de Joatzel Secondary School
- Las Acacias School
- Las Artes School
- Las encinas Secondary School

- Las Fuentezuelas Secondary School
- Las Lagunas Secondary School
- Las Rozas 1 Secondary School
- Las Salinas Fuengirola Secondary School
- Las Salinas Valladolid Secondary School
- Las Tablas Valverde School
- Leonardo Da Vinci Secondary School
- Leopoldo Cano Secondary School
- Les Corts Primary and Secondary School
- Liceo La Paz School
- Lloixa Secondary School
- Logos International School
- Los Angeles Getafe School
- Los Ángeles Las Palmas School
- Los Ángeles Secondary School
- Los Olmos School
- los Robles School
- Los Tilos School
- Loyola University
- Luis Bruñel Secondary School
- Madre Alberta School
- Madre de Dios School
- Maestro Matías Bravo Secondary School
- Manuel Fraga Iribarne Secondary School
- Mare De Déu De L'Olivar II School
- Mare de Déu dels Àngels School
- Mare Nostrum Secondary School
- Margarita Salas Secondary School
- María Auxiliadora Salesianos Vigo School
- María Inmaculada School
- María Irlandesas Leioa School
- María Moliner Secondary School
- Marista Santa María School
- Maristas de Chamberí School
- Maristas El Pilar School
- Marqués de Suanzes Secondary School
- Martín García Ramos Secondary School
- Matemático Puig Adam Secondary School
- MENDILLORI Secondary School
- Menesiano School
- Menor Nuestra Señora de Loreto School
- Mercè Rodoreda Primary and Secondary School
- Miguel de Cervantes School
- Mirabal School
- Monteagudo School
- Montealto School
- Montevives Secondary School
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- Moratalaz Secondary School
- Natividad de Nuestra Señora School
- Navarro Villoslada Secondary School
- Nazaret Oporto School
- Nazaret San Blas School
- Nebrija University
- Nicolás Copérnico Secondary School

- Nit de L'albà Secondary School
- N°5 Secondary School
- Norfolk School
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- Nuestra Señora del Lucero School
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- Paula Montal ikastetxea School
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- Peñamayor School
- Pérez Galdós Secondary School
- Pia Sant Antoni School
- Pinar de la rubia Secondary School
- Pineda School
- Pirineos Secondary School
- Plurilingüe de Seixalbo School
- Plus Ultra Vocational Training
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- Ponce de León Secondary School
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- Pureza de María School
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- Raimundo Lulio School
- Ramiro de Maeztu Secondary School
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- Ramón y Cajal Secondary School
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- Rey Juan Carlos University
- Rey Pastor Secondary School
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- Sagrada Familia Multi-lingual Primary School
- Sagrada Familia SAFA de Urgel School
- Sagrada Familia School
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- Sagrado Corazón de Celanova Primary School
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- Sagrado Corazón de Jesús School
- Sagrado Corazón Reparadoras School
- Sagrado Corazón Sarriá School
- Sagrado Corazón School
- Salesiano M^a Auxiliadora School
- Salesianos San Jose Artesano School
- Salvador Espriu Primary and Secondary School
- San Alberto Magno School
- San Alfonso School
- San Cayetano School
- San Cernín School
- San Fulgencio Secondary School
- San Ignacio de Loyola School
- San Ignacio Jesuitas School
- San Ignacio Torreledones School
- San Isidoro de Sevilla Secondary School
- San Isidro Secondary School
- San Jaime School
- San José Jesuitak Durango School
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- San Juan Bautista Salesianos Estrecho School
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- San Miguel Arcángel School
- San Miguel Primary School
- San Miguel School
- San Pablo CEU University
- San Patricio English School
- San Patricio Toledo School
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- Santa María del Camino School
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- Santo Domingo de Güímar School
- Santo Domingo School

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- Valdelatas Migrant Shelter
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- Valle del Almanzora Secondary School
- Vedruna Carabanchel School
- Vedruna Tona School
- Vega del Pirón Secondary School
- Veleta Secondary School
- Venancio Blanco Secondary School
- Veritas Secondary School
- Vicente Espinel Secondary School
- Vigán Secondary School
- Villa de Valdemoro Secondary School
- Vinyet Primary and Secondary School
- Vinyet Secondary School
- Virgen del Espinillo Secondary School
- Virgen del Remedio School
- Virgen Niña School
- Virolai School
- Zalima School
- Zola Villafranca School
- Zurbarán School

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