A program to develop resiliency, self-confidence, intrinsic motivation, and a sense of purpose in young adults

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Interested in innovating education, in 2010 he began to research the human brain and human behavior to determine how to improve education, enhance intrinsic motivation, spark creativity and drive, increase resiliency and develop a strong sense of purpose. This led him to research the fields of neuroscience, positive psychology and cognitive psychology.

He is author of the book intentional possibility (to be released), of Context Based Learning (Learning through understanding) and of a national program to develop resiliency, self-confidence, intrinsic motivation and a sense of purpose in young adults. He is also founder of a company that helps people, companies and organizations to live life with passion and intentionally create possibilities.

His ideas have been presented at TEDx in India, US Chamber of Commerce, Fortune 100 companies and multiple international academic and industrial forums.

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Abstract

The goal of this work is to develop and implement an early development undergraduate program that will help increase resiliency, self-confidence and intrinsic motivation, and develop a sense of purpose in young adults. The program is divided in two parts. In the first part students go through experiential training that uses techniques adopted from positive and cognitive psychology to help them develop a sense of awareness, define a sense of purpose, and constructively modify thoughts and behaviors. In the second part, students lead and implement a project that will positively involve and impact between 50 and 200 people. Through this guided experiential process students learn to intentionally create possibility, to face and overcome adversity, to enroll volunteers into their programs and to create a positive nurturing environment through Master Mind Groups, Accountability Partnerships, and Co-coaching strategies.

A train the trainer and pilot program was launched in multiple campuses at Tecnológico de Monterrey with interesting results. Students successfully reached out to their communities and launched programs and initiatives that contributed to the wellbeing of their communities. In one campus 20 students that participated in the project impacted over 1,000 people. Social media has spread the impact inspiring others to copy and replicate their initiatives.

Keywords: resiliency, intrinsic motivation, sense of purpose, mindfulness

1   Introduction

Companies are expecting committed and motivated engineers that have the social and soft skills needed to innovate, launch new programs, face uncertainty, learn on the fly, and lead new teams. Whereas engineering programs have focused on developing the hard disciplinary knowledge and skills, there is an open gap in understanding what is needed to develop resiliency, intrinsic motivation and drive.

In 2012, the Entrepreneurship Institute at Tecnológico de Monterrey launched a process to study and identify the skills and characteristics that we as an institution must help develop in our students so that they graduate with what we call a strong *entrepreneurship spirit*. This *spirit* will drive and enable students to launch new projects, programs and initiatives in their own companies, in the organizations they work for and in their communities.

The study identified specific soft skills and characteristics that will be developed in three phases. During the first three semesters of his undergraduate program, a student will increase resiliency and self-confidence and develop a sense of purpose. Throughout semesters four to six, the student will develop knowledge and skills that will enable him to identify business and design opportunities. In the third phase (semesters 7 through 9), the student will develop the necessary skills and competencies to generate and implement these opportunities.

This paper describes a program to increase resiliency and self-confidence and develop a strong sense of purpose in youngsters[1]. The program was developed using proven techniques from the fields of positive and cognitive psychology. A preliminary pilot program was launched and tested in multiple campuses across Mexico to generate questions, observations and establish a frame of reference.

2   Background

In this section we describe three elements that lay the foundations of our program: *Intrinsic Motivation*, *Resiliency* and *Intentional Possibility*.

2.1   Intrinsic Motivation

Companies are looking to attract and retain people that are engaged and committed to their work this has led to the resurgence of interest of intrinsic factors such as meaning, purpose, spirituality, engagement and commitment[14, 21- 25, 27].

This is becoming more important as job functions have changed from a static local environment that required routine implementation of orderly procedures to dynamic global environments that require creativity, flexibility, constant decision-making, and engagement. This new environment requires more worker autonomy, flexibility, empowerment, continuous learning, risk taking, and creativity[26].

The question is how do you generate this engagement?

For many years, companies have tried to drive productivity through bonuses, rewards and other extrinsic motivators. They soon realized that extrinsic motivators do not last. In fact, studies show that extrinsic motivators may give shot term results but on the long term may be detrimental.

Classic motivation theorists and humanistic psychologists have long supported the notion that individuals have an inherent need for a work life that they believe is meaningful. In fact, individuals who do not perceive the workplace as meaningful and purposeful will not work up to their professional capacity[19]. This gives rise to a new concept of *meaningfulness, which* relates to a connection between meaning of work and meaning at work [18, 25].

Csikszentmihalyi observed that intrinsically motivated people are driven by the work itself rather than by the accomplishment of the task. When they are fully engaged they enter a state that he calls *Flow* that occurs when people have a *purpose* or the significance of something and *intention* [14, 20].

Chalofsky observes that in addition to the work a person needs a sense of self and the sense of balance [18, 25].

In recent studies Thomas captures what the research has demonstrated with his list of the four most critical intrinsic rewards: *sense of meaning and purpose*, *sense of choice*, *sense of competence*, and *sense of progress*[26].

In the following chapter we will present a program designed to awaken and enhance these intrinsic motivators.

2.2   Resiliency[5]

Globalization, competition and existing dynamic market conditions require engineers to constantly innovate, to work and adapt under uncertain conditions and to quickly learn and recover from mistakes and fails. This requires a high level of "*resiliency*" defined as the ability to overcome and rise above adversity and difficult situations.

Resiliency describes one´s ability to move forward with optimism and self-confidence even when we are immersed in adversity. It is a mental state motivated by our thoughts, which are in part formulated by our success and our interpretations of past and current situations. It can be a factor that determines not only who will adapt, but who will succeed and overcome a given situation.

In general resilient people tend to be more successful because they dare to push themselves beyond their known limits and to learn from their mistakes and fails. They see challenge and adversity as opportunities. They face challenges and instead of falling into self-doubt, catastrophic thoughts or feel victims of the situation ("why me?"), they seek solutions and a level of understanding that will allow them to gain new skills and strength in the process[6, 7].

The *resiliency movement* started in an attempt to understand why youngsters that are raised under the same circumstances, environment and even in the same household could reach different levels of happiness and success.

Scientists from different fields of sociology, psychology and anthropology began to identify the forces that protect these people from adversity and failure. They studied communities and how the social structure helps or affects a community. They studied thoughts and experiences and how these influence one´s ability to bounce back from adversity. And they studied human survival and how culture and community influence resiliency.

These studies resulted in what is known as the seven pillars of resiliency – which are characteristics we wish to develop in students: *Competency*, *Confidence*, *Connectivity*, *Character*, *Contribution*, *Coping* and *Control*[5]. Each of these is described below:

Competency	Competency is the clear understanding and belief that one has the skills and knowledge that are needed to effectively handle a situation. This belief determines one´s actions, behaviors and persistence in front of obstacles and challenges. A person that feels competent trusts his skills and is more likely to persist, maintain integrity and make his own decisions when faced against difficult situations. Competency is also related to *tenacity*, *persistence*, *determination* and *will* [18, 21-23]
Self-Confidence	*Self-Confidence* is the solid belief in one´s own skills based on competencies. Both *competency* and *self-confidence* are developed by living different challenges, problems and experiences and persisting, finishing the task, willfully facing problems and obstacles and either succeeding or overcoming the failure to succeed. Simply telling a person that they can do it will not develop self-confidence. To increase self-confidence, people need to demonstrate their skills against real life situations. They need to validate themselves through the experience. The more a person successfully faces and walks through life experiences, the more he or she will realize that he has the tools needed to face new challenges. This repeated process builds up self-confidence.
Connectivity	Connection is a sense of belonging that helps a person *feel safe* knowing that he is not alone and that he can count on people to help him face his challenges. People that feel connected to a group that can nurture, support and protect them may decide to go for greater challenges.

Character	People need to have character and a clear understanding of right and wrong. Character ensures that they are prepared to make the right decisions, contribute to the world and become rightful stable adults. Young adults with character enjoy a high sense of self-confidence and feel more comfortable expressing themselves and maintain integrity within their values.
Contribution	People with a first row experience contributing to others develop a sense of significance and a sense of purpose that can motivate and drive them. They will make decisions and take on initiatives that make the world a better place. They will also seek to better themselves and improve their own competencies, character and sense of connection.
Coping	Coping helps people understand the difference between a real crisis and something that simply feels like if it was a state of emergency. Students can learn and experience positive ways to release stress and cope such as: *letting go*, *honor and acknowledge their own emotions*, *feel the fear and do it anyway*, *act as if*, *take a small step at a time*, *celebrate victories*, and *acknowledge others* [2,4].
Control	When a person realizes that his results are controlled by his or her decisions and actions, he begins to feel confident that he is able to do what is needed to overcome a challenge, problem and adversity. The problem is that many students do not realize that they have control over their results. Even successful students may feel that both positive and negative things "happen to them" and are beyond their control. People that feel that "everything just happens to me" may tend to become passive, pessimistic and even depressed. In contrast, a person with a high level of resiliency believes that he can improve his results through his decisions and actions.

2.3   Intentional Possibility[3]

We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too.
– John F. Kennedy, Rice University Stadium, September 12, 1962

A single statement given by John F. Kennedy in 1962 resulted in millions of dollars and thousands of people uniting to place the first man on the moon. People all over the world turned on the TV to watch this historical moment.

Putting a man on the moon is a feat worth remembering. But perhaps more important is the fact that all of this occurred because of a single statement. Prior to John F. Kennedy declaring to himself and to the world the possibility of a man on the moon, the idea simply did not exist. People did not talk about it. Scientists did not concern themselves with it. Congress did not invest in it.

It was only when John F. Kennedy declared the possibility of landing a man on the moon—and openly declared it—that the magic of possibility happened. Once he did, the idea that did not previously exist suddenly became real. It became real not only in his mind, but in the minds of millions of people around the world.

You and I have that same power. We have the power to invent and declare possibility. And by doing so, we can cause amazing things to happen and intentionally create an amazing, significant, and prosperous life.

Excerpt from the book *Intentional Possibility* [3]:

A simple declaration of possibility, something that inspires you, which you commit to, communicate and live as real, will shift your reality and give you a sense of purpose and intention[3]. Intentionally creating possibility will give way to projects that manifest themselves in this possibility and make this possibility real.

For example, in 1992, Dr. William "Red" Whittaker, Director of the Field Robotics Center at Carnegie Mellon University declared the possibility of the first robot in history to enter a live volcano in Antarctica. A year later, DANTE was descending Mount Erebus in Antarctica[28].

Over twenty years ago, Rosa Ramirez declared the possibility that every child that has a cogenerative heart disease and was unable to pay would receive world-class treatment and care. Inspired by this possibility ADANEC was formed. Every year, ADANEC brings together hundreds of thousands of dollars, hospitals and volunteer doctors, nurses and aides to give specialized treatment and surgery to children all over Mexico.

Javier Tinoco, a blue-collar worker at a manufacturing facility in Mexico declared the possibility that children in his suburb have a nurturing space to play and learn through football. He approached the municipal government, schools and parents and founded the first extracurricular soccer camp for children 8-10 years old in his suburb.

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2.3.1 The beginning of possibility

Possibility starts with a statement of possibility: a declaration that describes an ideal world or situation.

> *The possibility that students have a resting space on campus*

> *The possibility that first year students learn by engaging themselves in an active, challenge-based environment.*

> *The possibility that the first robot in history enters a live volcano in Antarctica*

It is then shared and communicated in present tense as if it already is. This level of communication, sometimes referred to as an affirmation, develops a mental construct that sparks engagement, creativity and motivation.

2.3.2 Enrollment

Possibility manifests itself through projects. DANTE went from being the possibility of a robot to a physical robot. JFK´s declaration went from the possibility of landing a man on the moon to the commemorative flight. The possibility that children have a nurturing space to play and learn through football went from possibility to an afternoon soccer camp for children.

The next step to make possibility happen is to enroll people into possibility and together work on a project. The newly declared possibility is shared with others in a way that inspires them and enrolls them into this possibility. Inspired by this possibility, people gather to brainstorm a project, event, program or initiative. Teams are formed, a plan is laid out, and people get into action driven and motivated by possibility.

2.3.3 The steps to create possibility

There are six steps to intentionally create possibility:

1. Find your purpose and declare a statement of possibility
2. Communicate and enroll others into possibility
3. Define a project, event, program or initiative
4. Layout a plan
5. Get into action
6. Acknowledge and Celebrate along the way

2.3.4 Using Intentional Possibility in Learning

People that live in possibility develop a number of traits we wish to develop in our students. They are driven, motivated, engaged, focused and prone to openly accept and handle adversity as challenge.

By engaging students in possibility and having them enrol volunteers to develop a project that impacts between 50 and 200 people, we can provide an environment in which the student increases resiliency, self-confidence and develops a sense of purpose.

3 The program

The program is divided into two main activities: An intensive experiential Success Principles™ Workshop[2] and an Intentional Possibility Challenge[3].

In the Success Principles™ Workshop[2] we apply proven exercises and techniques that help a student:

- Become aware of his thoughts, beliefs, feelings and actions
- Discover his purpose in life
- Take 100% responsibility of his life, decisions and actions
- Define clear goals
- Be effective and establish initiatives, plans and actions that will lead him to achieve the goals
- Get into action
- Increase self-confidence, motivation and responsibility

- Modify his beliefs and eliminate self-limiting beliefs

- Remain focused and motivated

- Overcome fears, resistance, and self-imposed limitations.

Note. Details on the exercises presented in the Success Principles Workshop is described in Jack Canfield´s Train the Trainer program and is therefore beyond the scope of this paper.

In the *Intentional Possibility Challenge* we apply *intentional possibility* to create a process through which the student improves self-confidence and resiliency by intentionally facing adversity. Students are required to develop a project that has a positive impact in a community and involves between 50 and 200 people. This number is believed to provide a suitable environment that will force students to form, organize, and lead a team of volunteers; and to attract resources to make it happen.

In addition students learn important professional skills including:

- how to create possibility and launch projects and initiatives,

- how to motivate and enroll volunteers

- how to motivate and inspire people to contribute and collaborate

- how to lead teams

- how to focus

- how to ask for what they need

- how to communicate effectively

- how to create accountability partnerships, mastermind groups, and other support structures and relationships that will guide him, nurture him and provide him with the necessary emotional and professional support[4]

3.1 The program enhances resiliency

The workshop takes place in a group setting. For many of the exercises, students pair up and openly share their life story, their wants, their goals, their successes and their life purpose. At every break students are encouraged to look for other partners. As the course advances we introduce heart talks and exercises where students get to share and communicate in groups of four to six people. They also form their own support groups through mastermind groups and accountability partnerships.

This part of the program takes around 16 hours spread over a weekend or in two hour sessions throughout the semester. In our experience, students develop a high sense of connection with all of the members in the group. By sharing their life story and celebrating their successes, they become aware that they have the necessary skills to accomplish their goals. They also learn to take responsibility and become aware that they are able to control their beliefs and actions leading to the results they obtain. In a very short timeframe they are able to enhance five of the pillars of resiliency: competency, self-confidence, connectivity, coping and control.

By taking on the responsibility of leading a project that helps between 50 and 200 people, they develop a sense of significance, character and connectivity. As their project progresses and they learn to face their fears, they increase their belief that they have the knowledge and

skills to handle upcoming situations (competency), they increase self-confidence and their sense of control. The facilitators mentoring and the support groups they have created give them connectivity and help them learn ways to face adversity and cope.

3.2   The Intentional Possibility Challenge

For the Intentional Possibility Challenge, students must develop a project that has a positive impact in a community and involves between 50 and 200 people.

Following is the logistics:

1. Students are divided into teams consisting of 3 or 4 members.

2. Each team must immerse themselves into the community and define a statement of possibility – an ideal state that positively impacts the community.

3. Inspired by this possibility each team brainstorms a list of projects, events and initiatives. They select one project to implement during the semester in course. This project must involve and impact between 50 and 200 people.

4. They generate a plan that includes specific and measureable goals, and a list of actions, people and resources they will need to acquire to make their project happen.

5. Students must present a proposal indicating the statement of possibility, the project, the community it will serve and the benefit to that community. The proposal must also include their plan, list of actions, people and resources.

6. Students have the rest of the semester to implement this project. Some of the projects will continue beyond this date. However, it is not a requirement.

7. Students are encouraged to invite as many volunteers as they want into their team and are responsible for leading the team and keeping them engaged.

8. Students will document progress and display it on Facebook. They will promote their webpage and solicit "likes" in an attempt to increase their impact by inspiring others into their possibility.

9. At the end of the semester, students are required to submit a report and to present their project and results in an open forum.

3.3   Important notes about the project

Although the project can be significant, from an educational point of view the importance of the Intentional Possibility Challenge is process the student goes through and not the project itself. We wish to help the student intentionally face adversity through something that motivates him and that will reward him with a sense of significance and a sense of purpose.

Therefore, as a facilitator or instructor, there are a few key points that you must keep in mind:

	The student will face adversity and in the process he will face uncertainty, resistance, fear, lack of clarity, lack of focus, mistakes and failure. You want to help him face the challenges and learn to overcome fears, resistance and self-imposed beliefs and limitations
	The project is a powerful means to develop self-confidence, skills and competencies. In order for this to happen, you must encourage the student to develop and complete his project as both the process and completion will give him an increased sense of significance, belonging, personal growth, and contribution to others. All of these important factors to increase resiliency and key competencies to develop the "entrepreneurial spirit".
	It is important to teach the students to celebrate each success along the way. Stopping to embrace small daily successes increases self-confidence in both the individual and the team.
	It is important to help students develop a positive attitude towards fails and failure. People can only grow if they are willing to try new things and push themselves to the limits in which they may fail. It is the only way to grow and learn. Help them appreciate fails and failures as part of the process.
	If the students lack experience in project planning and project execution, it is recommended that you divide the project into small incremental steps and activities so that they can become aware of their progress and when they complete all of the steps they gain confidence in their ability to succeed. [1]
	Clarity reduces stress. Lead students to clearly define the project and their action plan – allowing for flexibility and some change.

3.4   The facilitator´s role[5]

The program and the *intentional possibility challenge* are both led by an instructor that takes on the role of facilitator, mentor and guide.

A person that takes this position must be an acting coach and mentor and be sensitive to each individual student´s personal development and growth. He or she must understand that the project is part of the learning process that takes place as they declare possibility, define their project and take action facing challenges and adversities this entails.

In this section we describe some recommendations that will help the facilitator help the student grow and develop the pillars of resilience. Many of these have been further elaborated by Ginsburg & Jablow[5].

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[1] When students feel that there is a huge gap between what they know they can do and what they have do, they develop a tension. If the tension is too great, they simply disconnect and abandon the task. The same happens when we introduce activities that are emotionally uncomfortable. It is convenient to divide the activities into small steps that will challenge them a little, but that they can do. This will allow them to build up their comfort level. As time progresses, you can space out the tasks and increase their complexity and level of challenge. For example, you may have a student that has never spoke in front of 100 people. You may ask them to share with one other student, and then share in groups of 4, 10 etc.

To strengthen their perception of self-competency and increase self-confidence

Become their mentor. Offer to guide them only when you see it is necessary or when they ask you for your help.
Frequently acknowledge them verbally and sincerely for specific achievements and teach them to share, acknowledge and celebrate their successes.
Help them acknowledge and build on their strengths.
Reduce and eliminate "power" struggles.
Help them become good at the tasks and activities that they are taking on.
Help them see how they can overcome obstacles.
Make it a point to observe and acknowledge what they do well. And, if they make a mistake be clear and focus on what failed.
Encourage them to go further and maintain high expectations.
Motivate them to take their own decisions.
Teach them to think and develop problem solving skills
Teach them to set significant goals, to make a plan and to get into action.
Help them develop coping skills to reduce stress, to learn and to form positive relationships.
Allow them to make mistakes and give them prompt, constructive and direct feedback

To develop connection

Help them chose their friends to create an environment and a support structure that nurtures and supports them.
Lead them to open up through exercises in which they express their thoughts and ideas. You may start in small groups of two and slowly build up until they can easily express themselves and communicate with large groups.
Let them know that you appreciate and understand the challenges they are facing and create a safe space where they can express all emotions – including happiness, upset, frustrations, etc.

To develop character

Help them understand how their actions and behaviors affect people.
Help them acknowledge themselves as a kind and noble person.
Help them do something for other people and to be aware and grateful for the things, help and attention that they receive.
Create a space where they can express and share their experience.

To develop a sense of significance and contribution to others

Generate a space of community service. This will help them develop awareness of the world that surround them and to become sensitive to the fact are people that do not have the same opportunities, human contact, money, liberty and sense of security and safety.
Teach them the importance of serve to others. And let them know that you trust that they can change the world.
Create opportunities for each student to contribute in some way to their surrounding community.
Bring role models – adults that are already contributing to others.
Frequently share their contributions.

To develop a skills to overcome crisis and adverse situations

Teach them to cope by giving themselves time to relax and enjoy.
Create a meta-level state of conscience that allows them to become aware of evasive behaviors and other things we do to avoid stress and uncomfortable situations.
Teach them to break a big problem down into small steps.
Teach them to take care of themselves with exercises, meditation, an relaxation techniques.
Teach them to ask for help, delegate and eliminate self-limiting beliefs.
Promote creativity, innovation and creative expression.

To help them learn to control their results through their actions and decisions

Let them understand they are 100% responsible for the quality of life and results they obtain. They cause or allow things to happen.
Help them see that events are not random. Many things occur because of actions and decisions that have been taken (or not taken) by them or other people.
Help them understand that some things depend on what others decide and do. This one cannot control. Therefore, one is not responsible for many adverse circumstances that surround you.
Help them plan and document progress.
Help them do things one-step at a time, to take action, and to form a team and to delegate.
Help them face fears by taking action and asking for help whenever they need it.

4   Pilot Program and Case Studies

In December of 2013, we launched the first pilot program. Heads of undergraduate academic programs from the 33 different campuses around the country were invited to volunteer and participate in a Train the Trainer program. The participants experienced the process and were taught to facilitate the program.

We divided the train the trainer program in two parts. During the first two days, participants lived and experienced the *Success Principles Workshop™*.

The third day was focused on *Intentional Possibility™*. They learned the method, their roles as facilitators, what to expect and the set of skills and competencies that we want to develop

in our students. They lived the process of *intentionally creating possibility* by defining a *statement of possibility* and defining a project within this possibility that will impact between 50 and 200 people.

Once they completed the train the trainer program, they were invited to volunteer as facilitators to implement the project with their own students back home.

Our goal and expectations at this time were to implement pilot programs in different parts of the country to generate experiences and case studies from which we could begin to measure the results of this program and become aware of some of the challenges that we will face as we scale its implementation nationwide.

Case 1. Sonora - Prof. Ana Patricia Molina Varela

The goal of this activity is to help students identify themselves as people that can make positive change in their community and develop citizenship and entrepreneurial skills and competencies.

Students were asked to implement the intentional possibility challenge. They were also required to apply specific lessons and methods seen in class.

General Rules

- The team must propose a creative and innovative idea.
- The challenge must impact between 50 and 200 people.
- You must create a Facebook Page for their non-profit organization.
- You must enroll other people to execute the project or to raise funds.
- You must create a way for their project to continue.
- You must relate the topics seen in class in your final project report.
- Students must keep documents and evidence at every step of the project with photos and videos. It is important that you publish this evidence in your Facebook page.
- You can request meetings with the instructor for advice and council.

Grading

Written Report	50%	
Poster	15%	
Video	15%	**Results**
Co-evaluación	20%	

A total of 59 students participated coming from two course classrooms. They developed 10 projects in teams that contained between 5 and 6 students. By the end of the semester, their projects had an impact in over 1,200 people. The people involved include volunteers, sponsors and other people that were enrolled by the students.

Proyecto	Beneficiados	Involucrados	Observación
Park Clean Up	93	25	4 parques renovados
Se tu propio Héroe	90	4	3 grupos de la escuela Felardi
Vístete de Felicidad	60	20	1 Estación de Radio Involucrada y 1 Institución Educativa
#HELPINGMAKESMEHAPPY	65	200 aprox.	1 Empresa involucrada, apoyando con patrocinio sobre las plumas
Tiempos Mejores	87	115 aprox.	La empresa EIDE Consultores donó $1,000.00 el 24 de abril. La empresa Emprende IDEA donó $1,000.00 el 24 de abril. El motel La Siesta donó $1,000.00 el 25 de abril. Se Beneficio a Casa Esperanza y algunas personas indigentes
Hogar Juan Pablo II	50	10	Se beneficio a la Casa Hogar Juan Pablo II
Cadena de Favores			Se hizo una campaña en redes sociales con una pagina de Facebook y principalmente un video en donde se involucro a 3 empresas que apoyaron gratuitamente en el apoyo a una persona indigente, este video ha tenido un impacto impresionante. Al 06-mayo el video: tiene 4840 likes, ha sido 2968 veces compartido, tiene 620 comentarios y 297,472 vistas. La pagina tiene: 1500 likes. Liga Video: https://www.facebook.com/photo.php?v=243236422531867
Tus Tips Financieros	60	2	1 Empresa involucrada
Fuente de Empleo y Ayuda a la Comunidad Yaqui	más de 150	2	Placacentro Masisa, Donador de madera a comunidad Yaqui quienes la utilizaran como fuente de empleo para más de 150 personas que forman parte de la comunidad.
Un día de Sonrisas	65	65	Grupo de Pescador de la Secundaria TAES
Total de impacto	720	503	

Más de 1200

Testimonials

At the end of the semester, students were asked to comment on their experience. Following are some of the student testimonials we received:

"We thought we would help him giving him a hair cut, new clothes, food and even a good time, but it was the other way around. HE helped us to see that there is no greater feeling that to be generous and to think about others. This is a project that has given me a lot. It made clear to me that you can always help others and by doing so people around you will be moved to do the same. "
-    Juan Carlos Valdes

"With this project, I learned many things taught in class but mainly I learned about contributing to the community and in this case to people that have less opportunities than us. At the beginning, our idea did not seem to elaborate and I did not feel that we were doing much. But when we delivered food outside of the hospital, I realized that for many people, our gift had been the best part of their evening ... In conclusion, I what in my mind started out to be a tedious project resulted in the best experience that I have had all semester long. This experience gave me a lot as a person. When the evening was over, our team finished with a group of people that do this every evening Monday through Friday. And they invited us to participate. Personally, I can say that this project helped me reinforce concepts we saw in class and to grow as a person. I do believe that I would volunteer to do this again, alone or with the people that we met."
- **Brenda Díaz**

"This semester we learned a lot of things that will be useful in our professional careers, but I believe that the best way to learn it was to put them in practice in the Resiliency and Possibility Challenge. We chose to perform maintenance work on the city parks and to enlist people in the community to continue doing it. We transferred knowhow to the community, created awareness, listened to their proposals and took their proposals to Congressman Damián Zepeda who joined our initiative. Now we are now confident that this project will continue."
- Abigail A. Padill

4.1   Case 2. Tampico - Prof. Maria Magdalena Ocón

Students taking "Organizational Learning" with prof. Magda Ocón, did the Resiliency And Possibility Challenge with the following homes run by the National System for Integral Family Development (DIF) in Tampico, Mexico: CASAN, Casa Hogar del Niño, Estancia Diurna para el Adulto Mayor y los CAICs "San Francisco de Asís" y "Fernando San Pedro".

Students worked with different centers. They each offered over 20 hours of community work. As part of the course, they were required to present two progress reports and a final video.

4.2   Case 3. Chiapas – José Manuel Islas Pacheco

The resiliency and possibility challenge took place in the city of San Cristóbal de las Casas in Chiapas. A community populated by indigenous groups and surrounded by economic struggles.

The goal was to help students become aware and sensitive to the needs and challenges of people that live in their community, to help them learn how to identify opportunities and propose innovative solutions and to become leaders of positive change.

Ninety students from Tecnológico de Monterrey´s Chiapas campus participated. These students were divided into teams of 5. Each team had to explore the barrios of San Cristóbal de las Casas, identify key issues and problems and formulate innovative solutions. Their solutions must pursue one of these lines:

1. Improve the conditions of living for the locals.
2. Contribute to strengthen the social fabric.
3. Generate income for the families and community.
4. Generate appreciation for the cultural and social wealth.

Students were expected to contribute specific, measurable, realistic, and innovative solutions and projects that improve the community, culture, economy and environment. The people living in the barrios of San Cristobal de las Casas will execute these proposals.

The Project lasted 2 months and took place between August and September of 2014. Students visited the "barrios" and interviewed locals and barrio leaders. Students presented their work to barrio leaders and city officials. And had to include a prototype of their work.

4.3   Case 4. Monterrey – Sergio Sedas

The program was implemented as part of a freshman course titled Introduction to the Mechatronic Engineering Program, which serves to introduce incoming students to all of the research, development and international programs and activities that they have available at Tecnológico de Monterrey.

We divided the Success Principles Workshop into lessons and activities that could be taught in periods of 90 minutes. These were given once a week during eight weeks and combined with regular teaching activities of the course.

On week 9, students were taught how to create possibility and led to define and declare a statement of possibility. They were then asked to define a project within this possibility that would impact between 50 and 200 people. They had four weeks to make it happen.

Some students decided to explore communities in need and implemented different community projects. Students went to a public school and had a "fun day" with elementary students. Another student, went back to his hometown, spoke to the mayor and organized a free C++ programming course for his community, which he gave during winter break. Over 60 people attended.

Other students explored our campus, and realized that students needed a place to rest. Some place away from the stares of students in the library. They formed an initiative to create resting places populated by hammocks.

Creating *the possibility of every student receiving the tutoring that they needed* a group of students began to develop an app that could tutor you in Physics and Math.

Other interesting projects were developed.

5 Observations and future work

Engineering professionals must have a high level of social awareness as well as skills that enable them to innovate and face uncertainty and challenge. We have created a program that can help develop these skills and enhance the seven pillars of resiliency: *Competency*, *Self-Confidence*, *Connectivity*, *Character*, *Contribution*, *Coping* and *Control*.

We implemented a pilot program in multiple campuses in México. Our goal was to begin to understand the dynamics of this program and to generate an experience that we can build on to develop key research questions and directions.

Preliminary results show that it has a positive impact on students as it teaches them to take 100% responsibility of their life, to live their life with purpose, focus and direction and to become leaders that cause positive change in their communities.

Students that had direct contact with communities had greater commitment and drive. They also formed a different relationship with adversity. Instead of seeing the problems as personal roadblocks, they simply saw them as challenges that had to be cleared. Students that had direct contact with struggling communities gained additional value as they became sensitive to the challenges and opportunities that surround them.

Through the process we discovered a number of things, which are the hypothesis and foundations for our continued research:

Teaching people to first describe possibility gives them focus, intrinsic motivation, commitment and drive.

Facing this adversity allows a student to increase self-confidence and to realize that he has the skills and competencies needed to move forward. Furthermore, it allows him

to develop communication and leadership skills and to learn how to focus, organize himself and ask for resources and help he needs.

Orienting the projects towards social impact allows a student to acknowledge himself as someone that can contribute to the lives of others; to become aware of the needs of the community; to develop a sense of belonging; and to develop a sense of significance due to his contribution to others.

The facilitator takes on a very important role in this process. The students will go through a growth process as they face adversity and learn the skills they need to be clear, communicate, focus, decide and act. The facilitator must be sensitive to this process and able to coach each student and group of students.

Accountability partnerships, mastermind groups and co-coaching groups that keep the students focused and engaged are important. Their importance will be more evident when you want to scale the program to large groups.

At the conclusion of this first pilot program it is evident that relevant and reliable metrics will be needed to measure the true impact of this program on the students.

Regarding scalability, we found that it is possible to scale the process by teaching facilitators to lead the groups. However, our current implementation must be refined and redesigned to include sessions that help facilitators develop communication, facilitation and coaching skills.

Regarding where to apply the intentional possibility project, initially, we thought of concentrating this program as part of the introductory courses in every undergraduate program. We tested this out and found it to be feasible. However, the case studies showed that *an intentional possibility project* could be applied in other advanced courses as well.   It could be a part of entrepreneurship, human development and community service programs. It would also be good for advanced engineering design courses that use Design Thinking. In Design Thinking, students have to immerse themselves into a community or population to identify needs and generate innovative design opportunities.

Note. If you would like to form part of a global interest group with people and facilitators interested in incorporating Intentional Possiblity into their programs please contact Dr. Sergio Sedas at Sergio.sedas@itesm.mx and ssedastec@gmail.com.

6   Acknowledgements

7 References

[1] Sedas, S. Propuesta de un programa nacional para despertar resiliencia, motivación intrínseca y un sentido de propósito en jóvenes, presentado al Instituto de Emprendimiento, Diciembre 2012.

[2] Jack Canfield Train the Trainer: Develop the Next Generation of Human Potential Trainers. www.canfieldtrainthetrainer.com

[3] Sedas, S. Intentional Possibility, to appear 2013.

[4] Canfield, J, "Success Principles: How to get from where you are to where you want to be", William Morrow Paperbacks 2006, ISBN : 978-0060594893

[5] Ginsburg, K. R., & Jablow, M. M. (2011). *Building Rsilience in Children and Teens: Giving Kids Roots and Wings.* El Grove Village, ILL: American Academy of Pedriatics.

[6] Seligman, M.E., "The Optimistic Child: A proven program to safeguard children against depression and build lifelong resilience", Mariner Books, 2007, ISBN: 978-0618918096

[7] Seligman, M.E., "Learned Optimism: How to change your mind and your life", Vintage, 2006, ISBN: 978-1400078394

[8] Lopez, S. & Snyder, C.R., "The Oxford Handbook of Positive Psychology", Oxford University Press, 2nd edition 2009

[18] Carver, C., Scheier, Mi., Miller, C. and Furlford, D.; "Optimism"; Lopez, S. & Snyder, C.R. (Eds.), The Oxford Handbook of Positive Psychology, Oxford University Press, 2nd edition 2009

[21] Maddux, James E., "Self-Efficacy: The Power of Believeing you Can", Lopez, S. & Snyder, C.R. (Eds.), The Oxford Handbook of Positive Psychology, Oxford University Press, 2nd edition 2009

[22] Bandura, Self-Efficacy. The exercise of control. New York; Freemena (1997)

[23] Ginsburg, K., Building Resilience in children and teens, American Society of Pediatrics, 2nd edition, 2011.

[14] Csikszentmihalyi, M. & Nakamura, J. "Flow Theory and Research" Lopez, S. & Snyder, C.R. (Eds.), The Oxford Handbook of Positive Psychology, Oxford University Press, 2nd edition 2009, pp 195-206

[15] Watson, D. and Naragon, K., "Positive Affectivity: The disposition to experience posiive emotional states", Lopez, S. & Snyder, C.R. (Eds.), The Oxford Handbook of Positive Psychology, Oxford University Press, 2nd edition 2009, pp 207-215

[16] Langer, E. "Mindfulness versus positive evaluation", Lopez, S. & Snyder, C.R. (Eds.), The Oxford Handbook of Positive Psychology, Oxford University Press, 2nd edition 2009, pp 195-206

[17] Thompson, S. C., "The role of personal control in adaptive functioning"; Lopez, S. & Snyder, C.R. (Eds.), The Oxford Handbook of Positive Psychology, Oxford University Press, 2nd edition 2009

[18] Chalofsky, N., Kirshna, V., "Meaningfulness, Commitment, and Engagement: The Intersection of a Deeper Level of Intrinsic Motivation", Advances in Developing Human Resources, 11(2) (2009): 189–203

[19] Maslow, A. H. (1971). The farther reaches of human nature. New York: Penguin

[20] Csikszentmihalyi, M. Flow: The psychology of optimal experience. New York: Harper Perennial (1990)..

[21] Fox, M. (1994). The reinvention of work: A new vision of livelihood for our time. New York: Harper Collins.

[22] Lockwood, N. R. (2007). Leveraging employee engagement for competitive advantage: HR's strategic role (SHRM Research Quarterly Report). Alexandria, VA: Society for Human Resource Management

[23] Meyer, J. P ., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. Human Resources Management Review, 11, 299–326.

[24] Sievers, B. (1984). Motivation as a surrogate for meaning (Arbeitspapiere des Frachbereichs). Wupprtal, Germany: Bergische Universitat

[25] Chalofsky, N. An emerging construct for meaningful work. Human Resource Development International, 6, 69–83. Chalofsky, N. (2008). Work-life programs and organizational culture: The essence of workplace community. Organization Development Journal, (2003). 26, 11–18 .

[26] Thomas, K . (2000). Unlocking the mysteries of intrinsic motivation. OD Practitioner, 32(4), 27–30.

[27] Thomas, K. (2009), *Intrinsic Motivation at Work*, Berrett-Koehl Publishers, Inc, 2009

[28] Wettergreen, D., Thorpe, Ch., Whittaker, W. (1993) *Exploring Mount Erebus by a Walking Robot*, Robotics and Autonomous Systems, 1993

[29] Sedas, S. Context Based Learning and Learning through Understanding, TEDx Talk, Chennai India, 2012. http://tedxtalks.ted.com/video/Dr-Sergio-Sedas-Gersey