THINK DESIGN FOR SOCIAL ENTREPRENEURSHIP

SGAP LEADERS | **2019 REPORT**

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EXECUTIVE SUMMARY

"I think one of the aspects of the think design workshop that I didn't anticipate but I see is it seems to be fostering a sort of – I don't know if I want to call it independence – but that sense of leadership. The students feel empowered to step up and to talk with each other as intellectual equals, as co-collaborators, in a way that I think for some of them, they're not used to thinking of themselves that way. I think that's really valuable." D. Parker, English Teacher, Wootton High School

Background

Today's youth require a distinct set of 21st century skills in order to thrive in a rapidly evolving and increasingly technical workforce and to tackle wicked problems bedeviling their communities. The THINK DESIGN for Social Entrepreneurship workshop provides a unique out-of-school experience for high school students that instills essential competencies that aren't easily developed in traditional classrooms. The workshop is centered on the Stanford d. school's design thinking rubric. This model promotes an empathic, human-centered approach to problem solving. Design thinking is considered a valuable tool for business innovation but can help find novel solutions to thorny societal challenges.

The Workshop

The October 2019 THINK DESIGN Workshop gathered 32 students from Wootton High School to both learn about and experience the design thinking process. The event was held at Georgetown University and systematically introduced the design thinking building blocks. Students then worked in pairs and small groups to put these concepts into action. Through a series of guided exercises, they collaboratively practiced empathic inquiry, problem definition, convergent and divergent solutioning, and hands-on prototyping.

During the second half of the workshop, students applied the think design process to the emotionally charged topic of teen suicide and mental health. SGAP Leaders has previously been identified this as a pressing concern among youth, but it is particularly relevant for Wootton students. Wootton has a strong academic reputation, but the very environment that produces success also places immense pressure on students to excel. While some students thrive, others experience significant anxiety and distress. Moreover, the student body has recently grappled with the sudden deaths of fellow students, alumni, and a school principal. Given this context, the workshop gave students an important opportunity to explore these issues and think deeply about how to improve student well-being.

The workshop inspired students by highlighting 3 youth who took note of problems close to home, came up with a novel solution, and then moved their idea forward. These social entrepreneurs illustrate how youth can take a simple idea and build on it to make a difference in the world.

Outcomes

Participant feedback confirmed that the workshop was highly-engaging experience and offered students useful new tools for problem solving. One of the key take-aways for students was new appreciation for empathic inquiry. Learning new ways to look at problems and communicate ideas were other important growth areas. When asked if they would recommend the workshop to others, students and teachers who were interviewed gave a resounding "YES!," noting that the experience was not only educational, but fun. The teachers were eager to extend the workshop to more students. They noted that it was a valuable complement to the school curriculum and that content could be tailored to make it relevant to numerous academic disciplines. Students saw the think design process as a tool for promoting social justice that could help combat daunting problems such as the "education gap," or prejudice and stereotyping.

Conclusion

Since many schools do not yet have the infrastructure needed to nurture design thinking, community-based programs - such as SGAP Leaders - that provide hands-on design thinking experiences address a critical gap that can benefit both students and their teachers. Furthermore, design thinking encourages an atmosphere of innovation and collaboration needed to better prepare our students for their careers. Additionally, exposing our students to design thinking and social entrepreneurship allows them to practice empathy-building, and problem solving around a real-world challenge.

WHAT IS DESIGN THINKING?

The traditional concept of "design" has evolved from a narrow focus on shaping the appearance and functionality of products into a concept with broader applications. The term "design thinking" reflects the distinct out-of-the-box cognitions that professional designers use to solve challenging problems. Design thinking is now considered a vital strategy that businesses can use to spur critical innovation. It can also be applied to ill-defined "wicked" societal problems that require depoliticized, novel solutions.

Stanford d.school Design Thinking Process

https://dschool.stanford.edu
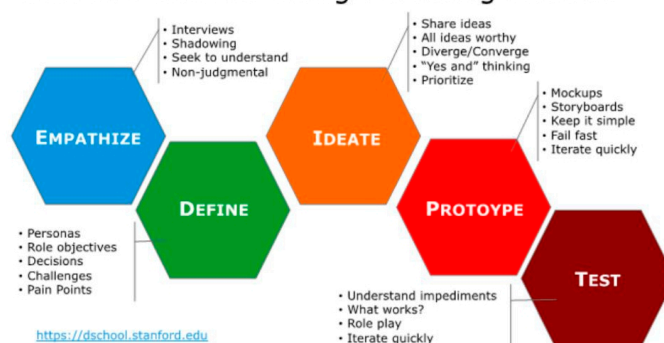
While various models depict design thinking process, the Stanford d.school model is commonly used and reflects the empathic, human-centered orientation that engages the target audience or user throughout the solutioning process.

Design thinking has several elements that make it an invaluable tool for today's students. When students apply design thinking to problem solving, they are honing 21st century skills deemed essential for our rapidly changing, digital society, particularly the "Four C's" of critical thinking, communication, collaboration, and creativity.[1] Design has also been elevated as an integral part of science education for all students in the Next Generation Science Standards (NGSS). Although the standards discuss design in the context of engineering, the term "engineering [is used] in a very broad sense to mean any engagement in a systematic practice of design to achieve solutions to particular human problems."[2]

The Design Thinking mindset fosters **creative optimism** and an assumption that the process will ultimately yield potential solutions that can be quickly tested. **Early failure** is both expected and accepted as part of an iterative prototyping process. Thus, there are no "wrong answers." Rather, the discovery process reveals that some solutions work better than others. This orientation is particularly important for students in today's high pressure academic settings who often view failure as a negative and stigmatizing outcome, rather than an interim cue to continue learning and to make refinements.

Visualizing ideas is a central element of design thinking, helping to bring concreteness to abstract concepts and creating a medium by which complex ideas can be shared. The tactile process of sketching, creating schematics, and building prototypes often adds an element of fun and helps energize a serious intellectual exercise. Students who find it challenging to express their ideas through narration may discover that that they excel in creating images and representations, and thus are key contributors to the team.

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[1] An Educator's Guide to the "Four Cs:" Preparing 21st Century Students for a Global Society. National Education Association website. http://www.nea.org/tools/52217.htm

[2] National Research Council 2013. Next Generation Science Standards: For States, by States . Washington, DC: The National Academies Press.

Collaboration & Creativity

The collaborative and creative nature of design thinking not only accommodates, but welcomes and thrives on weird ideas and diverse perspectives. This quality creates a safe place and removes common classroom inhibitors, allowing them to find their voices, grapple with emotionally fraught issues, and fully engage in solving real-world dilemmas.

Opportunity

Aligning with the 2013 NGSS and their heightened emphasis on design requires dramatic shifts in school curricula, teaching roles, and class configurations. The challenges for school systems are reflected in a recent 2018 report noting that, "implementing approaches that put investigation and design at the center of classrooms will require significant and sustained work by teachers, administrators, leaders in professional learning, those designing instructional resources and assessments, and policy makers."[3]

Since many schools do not yet have the infrastructure needed to nurture design thinking, community-based programs that provide hands-on design thinking experiences address a critical gap that can benefit both students and their teachers.

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[3] National Academies of Sciences, Engineering, and Medicine. Science and Engineering for Grades 6-12: Investigation and Design and the Center. Consensus Study Report Highlights. 2018.

SGAP LEADERS' THINK DESIGN EXPERIENCE

SGAP Leaders launched their first THINK DESIGN for Social Entrepreneurship Workshop in 2016. The idea for the workshop was inspired by a conversation with Rafe Steinhauser, who served as the Entrepreneurial Program Manager at Princeton University's Keller Center for Innovation in Engineering Education. The first Workshop was held in collaboration with Princeton University and brought together 32 high school students from two regional schools (Stuart Day School of the Sacred Heart and Rutgers Prep Upper School).

The inaugural event featured 3 teens, age 12, 14, and 15 years old, who had personal launched their own social entrepreneurship enterprise. **Sajni Vederey** launched STEM All Stars, an organization that inspires girls and nurtures girls' interest in STEM, both locally and internationally. **Brandon and Kyle Persaud** are brothers who launched Operation Hope, a nonprofit that delivers materials and funds to support education and medical welfare in impoverished villages and orphanages. Not only did these youth serve as tangible and relatable role models, but their collective presence spurred a new collaboration to bring funding and educational equipment to underprivileged students in India. Participants gave the workshop at 5 out of 5 rating for its location, facilitator, alignment with the common core standards, engagement and impact.

Recognizing the value and potential of this program for schools and area youth, Michele Joseph and her SGAP Leaders staff refined and branded the workshop and explored future themes based on student surveys. They targeted schools that might have an interest in utilizing the design thinking process for human-centered challenges, then presented the concept to select schools. The workshop offered a novel opportunity to schools and educators quickly recognized its value in extending learning beyond the classroom setting and cultivating a distinct set of problem-solving tools.

SGAP Leaders has now conducted more than seven THINK DESIGN workshops and reached more than 300 students. Over the years, the workshop has been hosted at Rothman Institute of Innovation and Entrepreneurship - Fairleigh Dickinson University, Ethics Lab and Bioethics Library - Georgetown University, Keller Center for Innovation and Engineering Education - Princeton University and been offered to youth ranging from 7 th to 12 th grade. Although the workshop has been conducted with as many as 66 students, the event has greatest impact with a group of 25-40 high school age participants. Early THINK DESIGN workshops were conducted in New Jersey, but have subsequently expanded to serve students in Maryland, and Washington, DC.

THINK DESIGN Workshops have focused on a range of contemporary problems that urgently need innovative solutions including food waste, social media and technology use, and teen suicide and mental health. During the workshops, students have modeled mobile apps to manage food waste issues, created new designs for the school cafeteria to accommodate wheelchair-bound teens, and coordinated cross-school mobile alerts to address issues that impact teen suicide.

Year	Region	Location	Participants	Theme
April 2016	New Jersey	Keller Center for Innovation in Engineering Education, Princeton University	32 high school students (3 schools) Rutgers Prep HS and Stuart Country Day School of the Sacred Heart HS	3 Sustainable Development Goals (students choose)
November 2016	New Jersey	Morristown High School, Morristown NJ	51 STEM Academy students	Teen Suicide
January 2017	Washington, DC	Bioethics Library, Georgetown University	66 8th grade students Capital City Public Charter School	"Upstanding" as a strategy to combat bullying
October 2017	New Jersey	Monninger Center, Fairleigh Dickinson University	53 students Morristown High School's STEM Academy and Humanities Academy	Food Waste
September 2017	New Jersey	Twombly Lounge, Fairleigh Dickinson University	56 Morris County School of Technology	Excess Technology and the I-Generation: Isolation vs. Connection
July 2018	New Jersey	Athletic Center, Fairleigh Dickinson University	25 Teen Camp	Cafeteria Redesign to accommodate wheelchair bound students
October 2019	DC Metropolitan Area	Bioethics Laboratory, Georgetown University	32 high school students Thomas J. Wootton High School	Teen Suicide

SGAP Leaders is currently exploring funding models to make the Workshop accessible to students across its service area, while ensuring that costs associated with the venue, the facilitator, transportation, teacher professional development, food and supplies, and staffing are covered.

2019 THINK DESIGN FOR SOCIAL ENTREPRENEURSHIP WORKSHOP

OBJECTIVES

The fall 2019 Think Design workshop was designed to provide students with a highly-engaging, hands-on experience that allowed them to envision themselves as agents of change and social entrepreneurs. The workshop also sought to empower students to tackle real world challenges in their communities and beyond by introducing and cultivating skills in design thinking and promoting creative optimism. Students then leveraged these concepts to explore and ideate potential solutions to the thorny problem of teen suicide and mental health.

HIGHLIGHTED THEME: TEEN SUICIDE

It is a grim reality that suicide is a leading cause of death among adolescents and young adults, second only to unintentional injuries. Despite public health calls to action to prevent suicide, rates have 4 markedly climbed in recent years. Suicide is commonly a manifestation of an underlying 5 mental health disorders, particularly depression, but has also been linked to common experiences among adolescents including relationship problems, bullying, challenges related to LGBTQ identity or minority status, intense academic pressures, and substance abuse and addiction. Youth can play an important role in preventing suicide by being aware of risk factors, recognizing warning signs, and knowing how and …having the courage to intervene with peers in distress.

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[4] Heron M. (2019) "Deaths: Leading Causes for 2017." National Vital Statistics Reports, 68(6).

[5] Stone DM, et al. (2018). "Vital Signs: Trends in State Suicide Rates - United States, 1999-2016 and Circumstances Contributing to Suicide - 27 States, 2015." MMWR, 67(22).

Suicide Rates by Age from 2000 to 2017
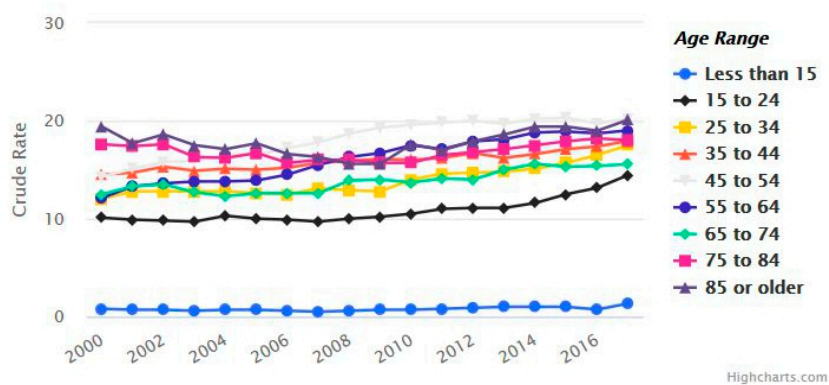
SOURCE: American Foundation for Suicide Prevention, Suicide Statistics. Accessed December 2, 2019 at
https://afsp.org/about-suicide/suicide-statistics/

SGAP Leaders revisited this emotionally-charged theme in its 2019 THINK DESIGN Workshop. The topic has been
positively received and has sparked critical conversations about how students can evolve from passive observers to
proactive advocates for mental health intervention as well as environmental changes in families, schools, and the
community that can enhance coping skills, reduce stress, and improve student well-being. The topic of mental health was
considered particularly relevant to Wootton High School students in light of the sudden death of the principal and the loss
of several students due to fatal car crashes and suicide in recent years.[6-7]

Student Participants

Thirty-two students from Wootton High School participated in the THINK DESIGN workshop. The large majority were
people of color and identified as African, African American, Asian, LatinX, Middle Eastern, or mixed race and were currently
in 10 th , 11 th , or 12 th grade. Approximately 25% of students were eligible for free or reduced school meals. Although
students came from a single school, most did not know each other until the day of the event.

Participating students were invited to attend the workshop by the sponsoring teacher, Dominique Parker, who targeted
youth with untapped leadership potential who needed opportunities where this talent could blossom. The students were
accompanied by Ms. Parker and a fellow English teacher, Ms. Catherine Boswell.

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[6] St. George, Donna. "Longtime Wootton High School Principal Found Dead in Apartment." Washington Post, 2015.

[7] Allentuck, Danielle, et al. "Students Explore the Issue of Mental Awareness Among Local Teens." Washington Post, 2014.

PARTICIPATING SCHOOL

Thomas S. Wootton High School serves more than 2100 students and is considered one of the best schools in Montgomery County, Maryland. The school offers an array of signature programs including the Academy of Information Technology and STARS: Science, Technology, and Research Signature Program to local students. Wootton has a diverse student body with 37% identifying as Asian, 6% as African American, 8% as Hispanic/Latino, and 44% as white. Fewer than 5% of students currently receive free or reduced school meals.[8]

Facilitators
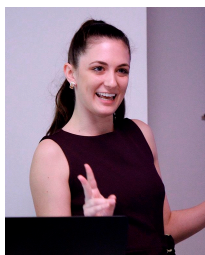
The October 2019 workshop was facilitated by **Rebeca De La Espriella**, an engaging speaker who has several years of experience working with design thinking techniques as a Strategy and Operations Consultant in Deloitte's Government and Public Services practice. Rebeca graduated from Princeton University with a BA in Public Policy and International Affairs and earned certificates in Entrepreneurship and Spanish Language and Culture. She has taught several design thinking courses and workshops focused on solving social challenges.

Michele Joseph is Founder and Executive Director of SGAP Leaders and is responsible (in concert with previous SGAP Leaders' staff member, Liandra Pires) for conceptualizing and launching the THINK DESIGN for Social Entrepreneurship workshop series. Michele has a long-standing commitment to bringing youth together in novel settings that cultivate 21 st century skills and empower them to tackle challenges in the world around them. Michele received an MBA from Georgetown's McDonough School of Business, and a BSc in Biology with a minor in environmental science from Catholic University. She also holds a certificate is Sustainable Business Practices. Michele has taught entrepreneurship, marketing and public relations, and branding to high school, college, and graduate school students.

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[8] WHS at a Glance, based on 2017-2018 enrollment data. Accessed November 2019 from
https://www.montgomeryschoolsmd.org/departments/regulatoryaccountability/glance/currentyear/schools/04234.pdf

THE WORKSHOP

The **October 2019 THINK DESIGN Workshop** was a 5-hour event that was held in the Ethics Lab of Kennedy Institute of Ethics at Georgetown University. The venue was intentionally chosen to allow participants to experience a large university setting, while also providing an informal workspace that fostered creativity and small group collaboration.

To prepare for the experience, teachers were given materials about design thinking and students were asked to read 2 articles about suicide among school-aged youth as well as view several videos.

The morning commenced with refreshments and a warm welcome, along with a preview of the day. Participants were acquainted with the concept of social entrepreneurship and introduced to the stories of three inspiring youth, Sajni Vederey, founder of STEM All Stars, an organization that encourages girls to explore STEM; Kenneth Shinozuka, the inventor of the SafeWander® safety alert, and Sahaj Vederey, founder of Melodious Productions, which teaches underprivileged youth to use cinematography to address injustices. Each of these individuals, as teens, took note of ordinary problems around their homes and communities, conceptualized potential solutions, and then brought them to life by launching a business or non-profit organization. Although these youth have been recognized for their accomplishments, they also serve as accessible **role models** and illustrate young people's potential to scale up their ideas and bring about meaningful change.
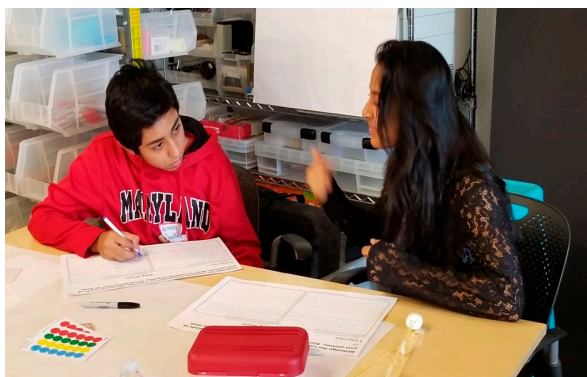

After a brief, but somber overview of teen suicide, the energy in the room was kicked up with a quick exercise in co-creation.

Students then engaged in an activity that walked them through the core elements of the design thinking process. The exercise centered on improving the school cafeteria, an aspect of daily academic life that almost all students have strong opinions about. Students worked in pairs and began by engaging in an empathic dialogue so that each partner obtained a good understanding of the other in terms of the personal significance of meal times, food preferences, and needs and wishes for a school cafeteria.

Moreover, students took away a set of new skills and tools to support their role as change agents in their communities.

Students used this information to generate problem definitions and then ideated potential solutions. Students were then given a set of simple craft materials and asked to construct a model depicting their solution for an improved cafeteria experience. Students circled back to their partner to see if their concept would in fact meaningfully address their cafeteria needs. The facilitator led a debriefing discussion, then students took a break for lunch.
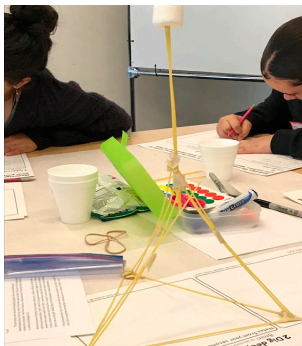
When students regrouped, the facilitator provided a deeper dive into the design thinking process highlighting the rationale and critical role of empathic inquiry and human-centeredness in problem solving. She then offered two real-world case studies illustrating the application of design thinking to social entrepreneurship.

The workshop then returned to the thorny topic of teen suicide. Following a short presentation of various strategies for ideation , students worked in small groups using sticky notes to brainstorm ideas about how to improve adolescent mental health and reduce teen suicide. Students were then directed to craft "How Might We" Statements to help them optimistically frame the problems they were targeting as an opportunity.

Students turned next to the task of solutioning . Using the numerous ideas they had generated as building blocks, students were asked to search for unifying themes, take note of what inspired them, and begin synthesizing ideas into a more cohesive concept. Students were introduced to techniques to summarize their concepts and solicit feedback and crafted "Napkin Pitches" to capture their primary concepts and invited comment from their peers.

The facilitator described various mechanisms for translating concepts into **prototypes**. Students then resumed their small group work and began creating sketches and diagrams to depict their concepts. As the final step, each group presented their prototype to the larger group.

Throughout the day, students learned about and applied each of the core "modes" of the design thinking model and tried out a variety of facilitating tools. In addition, students thought deeply about experiences that adversely impact mental well-being, the available resources and intervention options for at-risk youth, and factors that support resilience.

Although the day included brief didactic segments, the students spent the majority of the day engaged in highly interactive pairs and small groups to collaboratively work through the design process. **Students emerged with increased confidence, a greater appreciation for empathic inquiry, and a set of diverse strategies for tackling teen suicide and improving adolescent mental health**. Their concepts included novel apps to identify distressed youth and connect them with helpful adults, making companion animals available to relieve stress, particularly at exam time, and fresh ways for kids to engage in more fun, mood-elevating experiences during the week. Moreover, **students took-away a set of new skills and tools to support their role as change agents in their communities .**
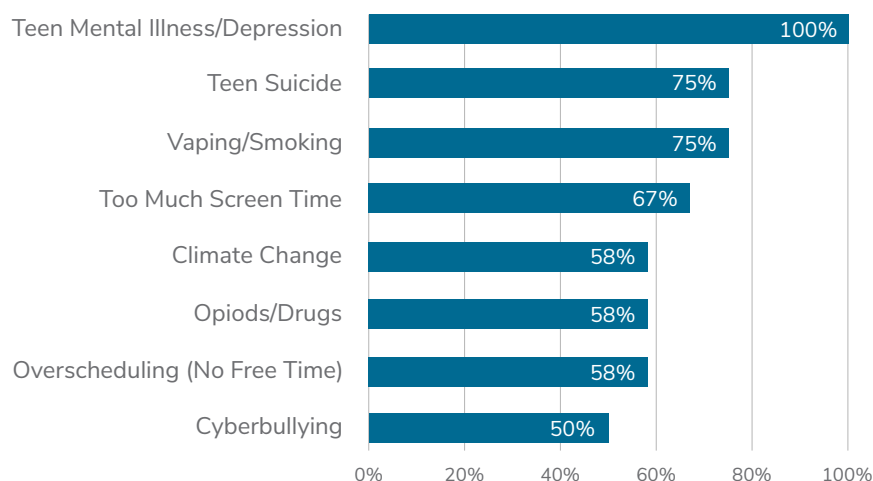
EVALUATION FINDINGS

SGAP Leaders used a mixed methods approach that included student surveys, video interviews, and observer and teacher debriefings to evaluate the 2019 THINK DESIGN Workshop experience. The surveys suffered from a low response rate, but indicated that students were primed and had a general, but incomplete awareness of design thinking and its applications when they arrived and came to appreciate its human-centered focus and utility as a problem solving tool. Students gave high marks to the facilitator for her effectiveness and high ratings to the choice of teen suicide and mental health as a focus for the THINK DESIGN Workshop.

Most Pressing Issues Facing Your Generation

Issue	Percentage
Teen Mental Illness/Depression	100%
Teen Suicide	75%
Vaping/Smoking	75%
Too Much Screen Time	67%
Climate Change	58%
Opiods/Drugs	58%
Overscheduling (No Free Time)	58%
Cyberbullying	50%

STUDENT INTERVIEWS

Individual interviews with 2 students were videotaped and provided additional feedback. Both students felt positively about the workshop and their introduction to design thinking, seeing it as a valuable new tool that they were curious to try in other contexts. They were inspired by the young social entrepreneurs, particularly Sajni Vederey , who founded the STEM All Stars program for girls. The workshop's focus on teen suicide was deemed highly relevant, particularly for Wootton students. They perceived Wootton students as strivers who often under inordinate pressure to perform while also participating in numerous activities. One of the students was intimately aware of youth who struggled with depression and anxiety or engaged in self-harming behaviors. The students expressed similar concern about the high prevalence of teen suicide and viewed the growing frequency as a sign that new solutions were urgently needed.

One of the students' key take-aways was a new appreciation for empathic inquiry and human-centeredness. In the words of one student,

> "I was working on trying to solve a problem and my first thought was, 'Well, this is what I would want -- if I were her – this is what I'd prefer.' And with human centered design, I came to realize that we are very different people and we don't have the same problem."

"It's really good for people to understand [that] when solving problems, you can't just focus on whatever you think. You've got to focus on other people as well. And that's a skill that I think everyone should learn when trying to do anything in life."

The students described the workshop as an "eye-opening" and surprisingly engaging experience that they would recommend to other students.

The workshop is "a lot more interactive than I expected, and it's a lot more fun than I expected. I didn't expect to be playing around with toys to show a problem for someone else. I didn't expect to have such interesting ways of communicating."

TEACHER INTERVIEWS

Interviews were conducted with the two teachers who accompanied the students, Dominique Parker and Catherine Boswell. An initial interview was conducted and videotaped with Ms. Parker, the sponsoring teacher. The two teachers subsequently participated in an informal debriefing session.

The teachers considered the workshop's emphasis on design thinking was well aligned with the development of 21st Century skills as well as the Common Core standards surrounding collaboration. **They were drawn to the offering because it could impart vital problem solving skills in a way that couldn't be done in the classroom**. They also viewed the focus on teen suicide as highly relevant and timely for Wootton students.

The facilitator's strong credentials and the program's university setting were also compelling. Although Georgetown University is 15 miles from Wootton High School, the teachers saw considerable value in bringing their students to a prestigious academic campus. At the same time, they viewed the distance as a barrier, noting that bringing the workshop to Wootton High School would have made the program accessible to more students.

The teachers observed that students were energized and fully engaged during the workshop and they saw several indications that students were starting to think differently about problem-solving.

"Over lunch, I was chatting casually with some students. They said it's regrettable that its not a more integrated part of what we do in school in general, because through the process, students can get to a prototype or a test and realize, 'Oh wow! That didn't work.' And instead of assessing it as a failure or as a problem, they just stop and think, 'Oh, better go back and tweak that', or '[I need to] talk to the intended user.' So it really shifts how they think about the process of solving a problem."

The teachers also noted that the collaborative process removed some of the inhibiting constraints of the classroom.

"What I observe is – and I don't know if its Wootton specific because Wootton is a school with a good academic reputation and students really care about grades and how they're doing – sometimes they're risk averse. They don't-like to raise-their-hand-unless-they-know-the-answer kind of risk averse. But I see the students today taking a lot more risks in terms of their brainstorming and the ideas they're throwing out of them. I can see how freeing it is for them. "

"I think one of the aspects of the think design workshop that I didn't anticipate but I see is it seems to be fostering a sort of – I don't know if I want to call it independence – but that sense of leadership. The students feel empowered to step up and to talk with each other as intellectual equals, as co-collaborators, in a way that I think for some of them, they're not used to thinking of themselves that way. I think that's really valuable."

The teachers had hoped that Wootton would not be the only school participating in the event. Since schools typically have their own distinct personality, they felt that working with unfamiliar peers in the small groups would have added a useful real-world element to the workshop.

When asked if they would change anything about the workshop, the teachers wished that more time had been available for activities centered on teen suicide. They also suggested eliciting teacher input to tweak the agenda timings. They also highlighted the need for students to have tangible take-away materials that captured their ideas and reinforced core messages. They also noted that no mechanism had been identified that would allow students to build on the energy and concepts emerging from the workshop and saw this as a lost opportunity.

Looking ahead, the teachers were eager to have their students participate in the Think Design workshop again and to make the experience available to a broader set of students. The teachers felt that that the design thinking components were relevant to a multiple subject areas, particularly STEM and health and wellness, but also the humanities.

LESSONS LEARNED

WHAT WORKED WELL

Feedback from student participants and their teachers as well as staff observations indicate that the Think Design workshop, as currently structured, is an engaging, empowering, and impactful experience that advances essential real-world problem-solving skills in a way that isn't feasible for many schools. It therefore offers a valuable complement to schools and addresses an important unmet need.

The workshop's notable strengths include Rebeca De La Espirello, who was a credible and energetic facilitator; a high level of interactivity; the use of diverse media to communicate and exchange ideas; and the inspirational stories of young social entrepreneurs.

Students strongly endorsed teen suicide and adolescent emotional well-being as a pressing issue. This topic is likely to remain a major concern for the foreseeable future, making it a desirable and consequential focus that the workshop should continue. The survey and interviews point to additional problems that would be timely targets for design thinking.

OPPORTUNITIES FOR IMPROVEMENT

Conducting the workshop on a university campus offers substantial benefits, but is also a significant barrier to participation. Alternating the workshop between a university campus and a more accessible setting may strike a reasonable balance between competing goals.

Students who are working through the design thinking process benefit from a diverse collaborating team that offers a variety of strengths and perspectives. Whenever feasible, the SGAP Leaders should bring together students from two or more schools to diversify and enhance the small group experience.

Students were asked to review a small set of reading materials and videos that addressed teen suicide before the workshop, however only a handful of participants did so. The workshop team should assess the value of these materials to the overall workshop experience. If the materials are deemed essential, the team should clarify instructions and provide a clear rationale for reviewing them ahead of the event.

The workshop invariably includes students who are outspoken, as well as students who are more reserved. The facilitator should seek opportunities for quieter students to comment and share their ideas and make sure that the discussion isn't dominated by a small core of students.

The Think Design workshop spurred students to do some deep thinking about suicide and depression and strategies for addressing these problems, but mechanisms that would allow students to move forward on the energy and concepts that the workshop generated were lacking. The planning team should work with sponsoring teachers and schools to identify options that build on students' motivation and insights after the workshop ends.

The survey methods used suffered from low participation rates and did not adequately capture students' perspectives about the workshop experience or targeted outcomes. SGAP Leaders is current revising its overall evaluation methodology to address this critical gap.

ABOUT SGAP

Begun in 2016, Student Global Ambassador Program ("SGAP Leaders") is founded on the belief that the youth of our generation will need to take on a more active role in solving the world' most intractable problems, beginning with those in their own communities. **Through custom-designed programs in STEM, Sustainability, and Social and Environmental Justice, SGAP Leaders engages students to think critically and creatively about real-world environmental and social problems of our time, and to work collaboratively to devise community-based solutions to tackle such problems.**

We know that tweens and teens are bubbling with a natural curiosity and creativity; we try to hone this inclination by providing a structured vehicle for motivated students (middle and high school-aged) to come together and find solutions to pressing problems ranging from climate change and fossil fuels to related social issues such as access to clean water, food shortages (and waste), and human trafficking.

"Through active problem-solving, they learn to think critically around real issues that affect real lives, and develop leadership/team skills; through this process, they gain a voice and feel empowered. In turn, the program positions them for post-high school success, primed as visionaries and agents for change in their communities and, in turn, the world."

SGAP Leaders works primarily through a partnership model: we partner with area schools, nonprofit and for-profit organizations including--middle and high schools, colleges and universities, nonprofits and NGO's, businesses and corporations located within the Montgomery county and the DC Metropolitan areas (in addition to the NYC metropolitan area, our other main footprint).

SGAP Leaders programs are aligned with the United Nations' 2030 Sustainable Development Goals (SDG's); as such, they are designed to engage students in critical thinking, problem solving, and collaboration skills, as well as awareness of global social and sustainability issues. Programs are also in line with the 21st Century Skills, Common Core and Next Generation Science Standards, and commonly use real-world 'case studies.' As such, they are tailored to meet the learning standards and needs of the participating schools. Each program is designed in close collaboration with faculty from area schools and universities, and other program partners, and involves requisite, in-class, and pre-work .

APPENDIX 1 - THINK DESIGN FLIER

To learn more visit sgapleaders.org

Think Design
for Social Entrepreneurship

Impact your world.

Take steps to create compelling ideas to impact your world:
Empathize + Define + Ideate + Prototype

Rebeca De La Espriella - Workshop Facilitator
Rebeca De La Espriella is a Strategy and Operations Consultant for Deloitte's Government and Public Services practice. She has over half a decade of design thinking experience, and she both teaches design thinking courses focused on solving social challenges and uses design thinking techniques to serve her federal clients.

DATE:	LOCATION:	TIME:
Friday, October 11, 2019	Georgetown University	8:00 AM – 1:00 PM
	The Kennedy Institute of Ethics, Healy Hall	
	3700 O Street, SW	
	Washington DC 20057	

APPENDIX 2 - 2019 WORKSHOP AGENDA

October 2019 THINK DESIGN for Social Entrepreneurship Workshop

08:15 a.m.	Registration
08:30 a.m.	Welcome & Introduction
08:45 a.m.	Sajni Vederey, CEO of <u>STEM All Stars</u> & Sahaj Vederey, CEO of <u>Melodious Production</u>
09:00 a.m.	Student Global Ambassador Program <u>(SGAP Leaders)</u>
09:15 a.m.	Break
09:30 a.m.	Blind Draw Warm-up Game
09:40 a.m.	Design Thinking Sprint
10:40 a.m.	Discussion and Recap
10:50 a.m.	Break & Lunch
11:10 a.m.	Design Thinking Presentation
11:20 a.m.	Ideation Introduction
11:30 a.m.	Collaborative Brainstorm
11:45 a.m.	Blue Cards and Trigger Questions
11:55 a.m.	Constrained Brainstorm
12:05 p.m.	Dot-mocracy
12:15 p.m.	Sketch
12:25 p.m.	Share with Partner Group
12:45 p.m.	Debrief with Group
01:00 p.m.	Wrap-Up & Thank You
01:10 p.m.	Survey

APPENDIX 3 - THINK DESIGN FACILITATORS
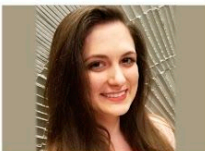

Think Design
for Social Entrepreneurship

FACILITATORS

Rafe Steinhauer is a visiting Assistant Professor of Design Thinking at the Phyllis M Taylor Center for Social Innovation and Design Thinking at Tulane University. Prior to Tulane, Steinhauer was the Entrepreneurial Program Manager for the Tiger Challenge - Keller Center for Innovation at Princeton University New Jersey.

Julie Kwong, a graduate with honors from Princeton University teaches high school in Brooklyn, New York. She is passionate about greater access to a quality education for socioeconomically disadvantaged youth. She served as the Design Thinking Summer Associate for Princeton's Tiger Challenge, a program that teaches, supports, and em-powers Princeton undergraduates to use design thinking to tackle wicked problems in and outside of the local community.

Rebeca De La Espriella is a Strategy and Operations Consultant for Deloitte's Government and Public Services practice. She has over half a decade of design thinking experience, and she teaches design thinking courses focused on solving social challenges. Rebeca graduated from Princeton University with a BA in Public Policy and International Affairs and earned certificates in Entrepreneurship and Spanish Language and Culture.

APPENDIX 3 - MORRISTOWN HIGH SCHOOL E-NEWSLETTER

DESIGN THINKING: THE CORE OF INNOVATIVE LEARNING

"Design thinking is the fundamental process of applying elements from a thinker's toolkit such as empathy and experimentation to arrive at innovative solutions"

The Morristown High School STEM Academy has begun to dive into the practice of Design Thinking and empatheticproblem solving. The Academy has partnered with the Student Global Ambassador Program (SGAP Leaders) and Princeton University to host a variety of workshop opportunities for students. The start-up program was facilitated by Princeton's design thinking and social innovation coach, Rafe Steinhaur, along with student members of the Tiger Challenge group. This event was hosted by the MHS STEM Academy and focused on targeting student stress and anxiety. Students had the opportunity to dive deep into investigative work surrounding design thinking and human-centered design. This SGAP Leaders sponsored Think Design workshop provided a unique, out-of-classroom learning opportunity for students by engaging them in a range of critical thinking and problem-solving activities. The students used innovative and collaborative non-traditional educational strategies to solve empathetic issues. The basis of this particular event was to bring MHS STEM Academy students together with Princeton University's Tiger Challenge Group to investigate teenage innovation and stress management through the design process.

The Morristown High School STEM Academy continues to partner in efforts to bring Design Thinking programs and experiences to all Morristown students. These events are a groundbreaking approach to collaboration between MHS, Princeton University , and SGAP Leaders that has led to future educational programs. In the upcoming school years more Think Design events have been planned along with a proposed Design Thinking elective courses to be implemented into the MHS curriculum catalog. During the spring semester, a large-scale event was hosted at Fairleigh-Dickinson University which focused around world hunger and food waste. Design Thinking programs are now reaching out to not only the STEM and Humanities Academy but all students here at Morristown High School!

(Morristown High School STEM Academy, Morristown NJ, e-newsletter excerpt with permission from Brain Young)