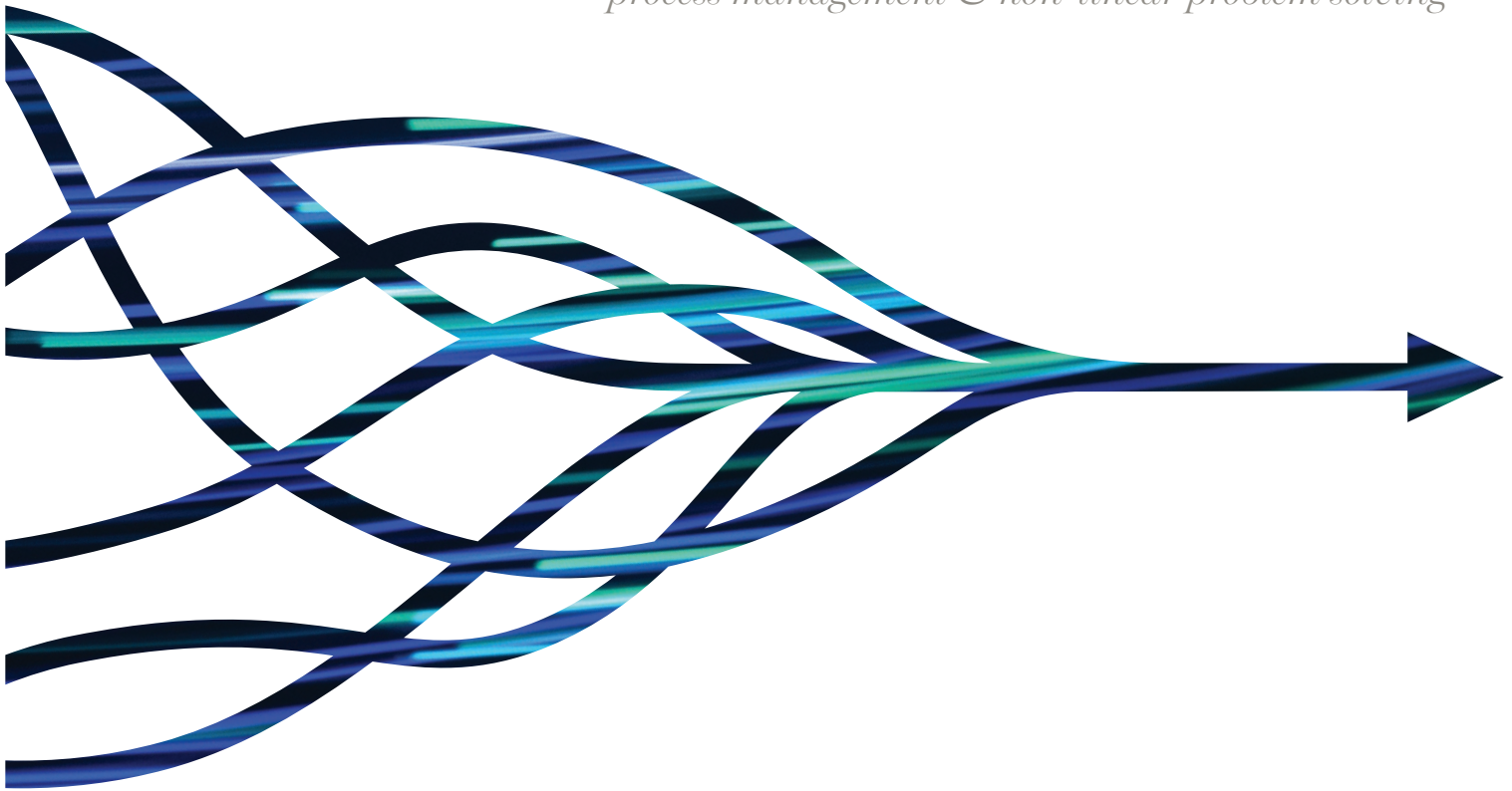# EXPERIENTIAL COURSE IN DYNAMIC TEAM CONSULTING

Project-based model emphasizes collaboration, process management & non-linear problem solving

VERTEX

DREXEL UNIVERSITY
Solutions
Institute

EXECUTIVE SUMMARY

Drexel University is a leader in experiential learning, combining rigorous hands-on courses with world-class research, global perspectives, and a premier cooperative education program. Drexel's unique approach is rooted in deep corporate partnerships as the University strives to build meaningful and mutually beneficial corporate relationships. Through these relationships, students are able to successfully experience and help shape the working world as it continues to evolve. Vertex, Inc. and Drexel have a long-term partnership that they have continued to develop and strengthen through the years.

Former Vertex President and CEO, current co-owner and Chairperson of the Board, Jeff Westphal, leveraged the existing relationship and Drexel's expertise in experiential and project-based learning with a new proposal to engage students at a deeper level, challenging how they think, contribute and interact in team environments. Implementing this initiative starts with the development of a class model for a single course. The course is used as a test bed for large-scale educational change through intense collaboration and project-based learning. The objectives of this initiative are three-fold: 1) evaluate the impact of the class model over the course of the term on students and Vertex, 2) assess scalability, and 3) target opportunities to integrate elements of the class model into other classrooms at LeBow, across Drexel, and ultimately, into other universities. Drexel was a natural environment for this proof of concept because of its focus on innovation and experiential learning, research expertise in team dynamics and project-based learning, and its long-standing partnership with Vertex.

Today's business landscape requires collaboration. This reality places a premium on developing students to work with others. Students must be prepared to be solutions-oriented, engage with different teams, and critically think about their work and contribution together with diverse colleagues. Collaborative, project-based learning is a unique training opportunity for students as it encourages peer-to-peer group collaboration and creative problem solving with an emphasis on developing new solutions for complex challenges.

In 2016, Vertex and Drexel University partnered to develop an innovative course, Dynamic Team Consulting, to address the increased demand for interpersonal skill development and prepare students to succeed in the current and future business workforce. Through this partnership, Vertex engaged with Drexel's student population directly as the students experience consulting with the company and develop business solutions through intense collaboration. Vertex facilitated the students' collaborative journey in partnership with Lauren D'Innocenzo, PhD, Drexel assistant professor of management and an expert in Organizational Behavior at Drexel University's LeBow College of Business.

THE
FUTURE
OF WORK

As technology continues to transform the business landscape, students must learn to be agile and adaptable prior to entering the workforce. Rote memorization and mastering of technical skills are no longer the most effective delivery methods in education, as students need to be able to navigate dynamic teams, projects, and evolving organizations. To address this gap, project-based learning and the development of human skills (i.e. communication, collaboration, emotional intelligence, etc.) are increasingly becoming the focus of mastery. This pedagogical shift has been noted in several publications and has gained increasing advocacy.

- 57% of 2,000 business leaders surveyed by LinkedIn identified employee soft skills as most important.

- The National Association of Colleges and Employers 2018 Job Outlook survey, polling more than 200 employers, found that problem solving, communication, and the ability to work in teams were among the most desired skills in employees.

- A Jan/Feb 2019 article in *Biz Ed* stated, to stay relevant, business schools will need to offer more courses that provide students with a deep understanding of how to apply soft skills to their future careers.

For 100 years, Drexel's co-op program has exposed students to the nuanced needs of the professional world. To further prepare them for these roles, Drexel LeBow has embraced the shift to project-based learning in the classroom for almost a decade. Through project-based consulting courses, students develop sought-after competencies including complex problem solving, critical thinking, decision making, collaboration, communication, and an understanding of research methods and techniques. In addition to working closely with faculty, students also interact with and present to industry leaders from partner organizations.

Advocates of this educational shift to project-based learning have also gained traction through movements such as Global Moonshots in Education, founded by Dr. Esther Wojcicki, which has propelled the transformation of class models to stimulate student engagement, innovation, autonomy, and agency over their learning outcomes. Her educational philosophy has gained traction throughout the U.S. and inspired Jeff Westphal's own educational advocacy work.

VERTEX BACKGROUND

In 1978, Ray Westphal started Vertex, Inc., providing paper-based National Sales Tax directories and manuals that included all general jurisdiction, rules, and rates. His wife, Antoinette Westphal, joined as the first employee and, by the early 1990s, the company was offering an expanded collection of solutions for managing transaction taxes. Their three children — Amanda, Stevie, and Jeff — joined the business in the 1990s, and Jeff served as President and CEO from 1996 until 2016. All three children co-own the company, which is privately held, and continue to serve on the board of directors.

Operating in today's complex business environment, Vertex provides end-to-end cloud, SaaS and on-premise tax automation solutions that help companies grow with confidence through proven technology that simplifies the complex taxation landscape. Vertex delivers value to customers through software-based solutions, designed and built through creative collaboration between its subject matter experts, corporate tax clients and global accounting, ERP and E-commerce software partners.

Vertex has also developed Innovation Labs that focus on exploring new solutions to address proof-of-concept ideas from customers and partners. Vertex Innovation Labs analyze technology trends, how jobs are done today, and how new technologies can be leveraged to solve those problems in the future.

DREXEL & VERTEX PARTNER FOR BUSINESS SOLUTIONS

Vertex began its relationship with Drexel University in the 1950s with its founders' education at Drexel. Through the years, Drexel has worked with Vertex through the Drexel co-op program, providing a talent pipeline for Vertex and an experiential learning opportunity for Drexel students and through Drexel's Corporate Partner of the Month program.

With the inception of a project-based course in Fall 2016, Vertex, Inc. and Drexel expanded and deepened their existing partnership. With Drexel's philosophy of experiential learning and Vertex's commitment to collaboration, the partnership would provide maximum impact to both the University and the business.

The idea for the course originated under Jeff Westphal has continued under current President and CEO David DeStefano with support from Colleen Kirk, Vertex's Director of Organizational Development.

"It's about business coming to the University and offering the students a real consulting experience where you're not giving them the answer," Kirk says. "It's so beneficial for our company, as well as for the students."

THE CLASS MODEL:
"Dynamic Team Consulting"

Lauren D'Innocenzo, PhD, assistant professor of management at LeBow College of Business, accepted the challenge to build a course that would be a test bed for deeply collaborative, project-based learning, and business solutions consulting. Well regarded for her research on teams, D'Innocenzo used her expertise to design the class based on foundational teaming concepts. The course, extremely collaborative in nature, would enable students to problem solve and critically think in real time, practicing and building those skills that would serve them in the business world.

Although designed and developed by D'Innocenzo, the course's core function is to provide the students the opportunity to be self-directed, as she and representatives from Vertex lend their support on an as-needed basis as challenges arise. For each class term (4 terms in total), Vertex presented a unique problem statement, which guided the work of the teams during the term as they developed solutions that would be pitched at a high level in the company. The solutions would be implementable and the process behind the creation of these recommendations would also be presented.

Class makeup has ranged from freshman to seniors. It started small with only six students comprising a single team. Over the course of four terms (Fall 2016, Fall 2017, Spring 2018, and Fall 2018), the class nearly tripled in size, creating the need to split the class into multiple teams. As a result, the format of the class has evolved as new insights were gained from the single-team to multi-team format. Despite the structural changes, many of the overall teaming principles have remained the same, albeit manifested in different ways across teams.
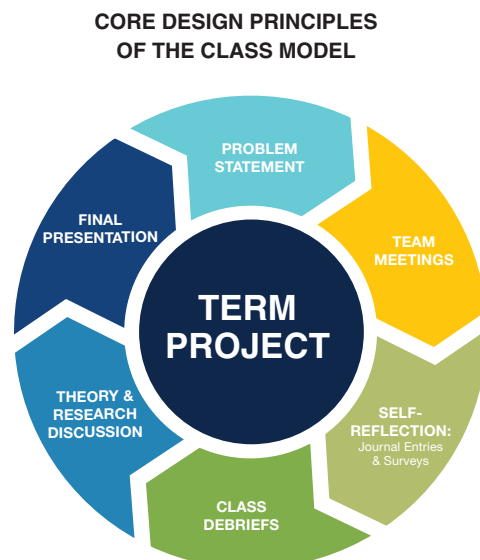
"We give students a problem statement at the beginning of the term, and it's up to them to decide how they will scope the problem, conduct research and pull together a final product.

We ask: What can you do with it? What does it mean to you? How do you interpret it?

We've seen that throughout these iterations, each class comes up with their own framework and direction."

— LAUREN D'INNOCENZO, PHD

The class is multi-layered with methods that complement one another to offer the students a framework to govern themselves throughout the term (see "Core Design Principles of the Class Model" below). Approximately ten team meetings, led by the students, created the environment for team dynamic learning where students are engaging with one another to build a successful team.

CORE DESIGN PRINCIPLES OF THE CLASS MODEL

TERM PROJECT

PROBLEM STATEMENT

TEAM MEETINGS

SELF-REFLECTION: Journal Entries & Surveys

CLASS DEBRIEFS

THEORY & RESEARCH DISCUSSION

FINAL PRESENTATION

To stimulate growth and learning, students weekly review current research and literature focused on a key learning topic. These readings provide a shared language for the teams to discuss their challenges and successes. (See full list of key learning topics on page 7.) This literature included a team fable, "Five Dysfunctions of a Team: A Leadership Fable" by Patrick Lencioni, which helped to structure D'Innocenzo's key learning topics. In addition, students are given analytical tools to diagnose breakdowns to collaboration and coordination. See below for examples and more information on these tools.

SAMPLE ASSESSMENT TOOLS

Team Role Experience & Orientation (TREO)	Team Charter	Purpose, Process, Product (PPP)

Team Role Experience & Orientation (TREO)
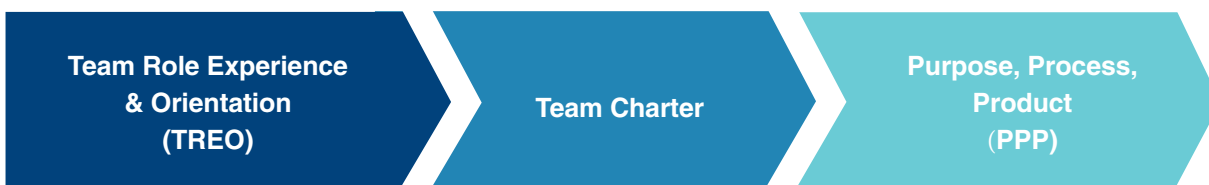
What is it?
TREO is a way to inventory the skills and predispositions of individuals to help reveal their likelihood of effectively fulfilling specific roles within a team (Organizer, Doer, Challenger, Innovator, Team Builder and Connector).

Why is it important?
Alongside technical abilities, teams need to have the right team skills in order to be successful.

How to apply?
Teams should consider their TREO mix alongside their task needs. Any deviations or shortcomings should be discussed with the team with an eye towards how those areas will be addressed.

Team Charter

What is it?
Team charters are an official team document that describes a number of teaming elements including team skills and contact information, deadlines and project scope, as well as team norms, expectations, and consequences for positive/negative behaviors.

Why is it important?
Team charters help to set expectations within teams to start them on a path to success.

How to apply?
Team charters should be written when a team begins their task and should be completed together to establish buy-in and make sure that all team members agree to the expectations set forth. The charters should be revisited throughout the task to hold team members accountable and make adjustments as needed.

Purpose, Process, Product (PPP)

What is it?
An organizational framework for planning team meetings.

Why is it important?
Helps to keep meetings on track by establishing: purpose (including who and why certain people are invited), process (including how things will get done, best format (face-to-face, virtual), time allotments, pre-work requirements and defined roles) and product (including what will be accomplished at the end of the meeting).
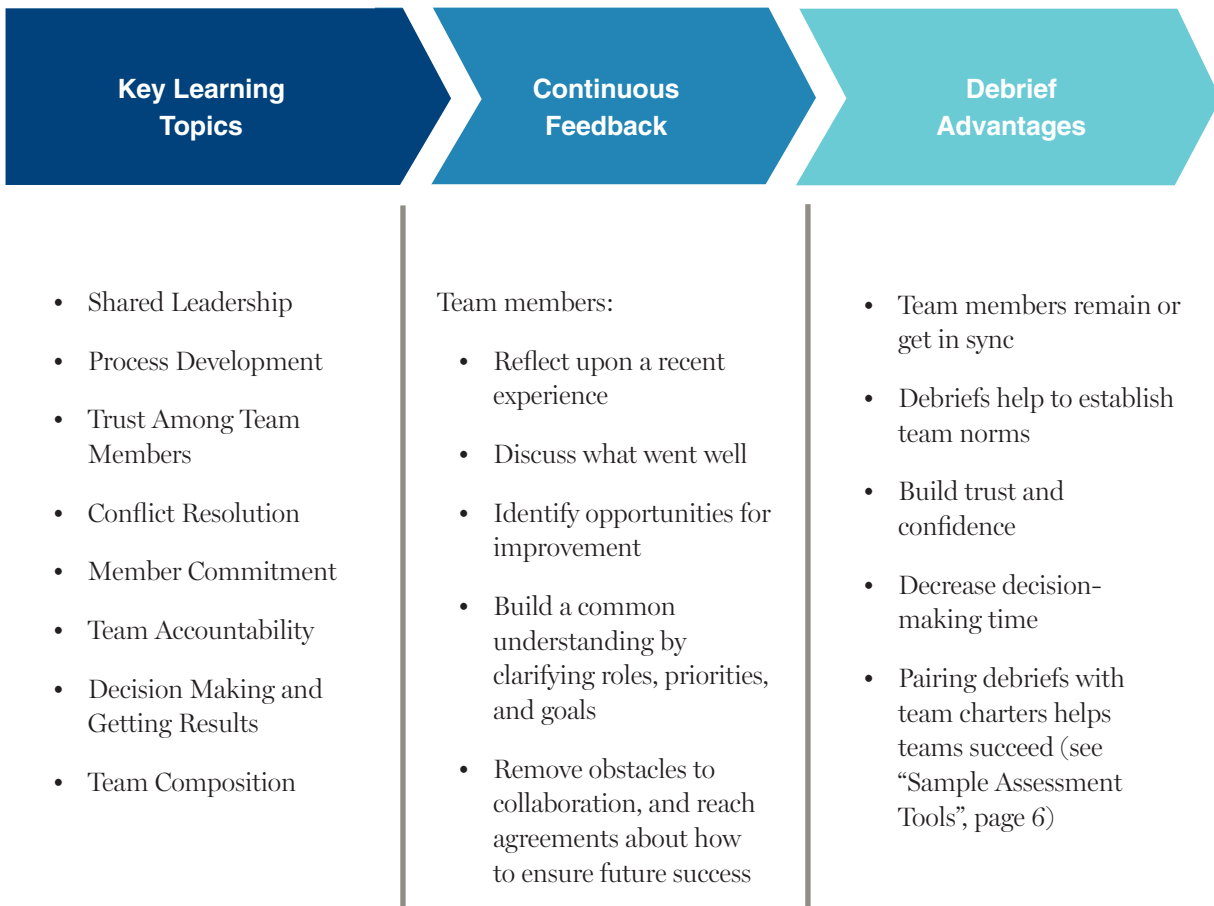
How to apply?
A PPP should be written and distributed prior to each meeting, ideally upon conclusion of the last meeting to allow for ample preparation time.

A critical element to making this class work is debriefing. Debriefing helps to provide meaning and context to student experiences and brings to life key learning topics (see "Elements of Debriefing" below). It provides a space for students to continually evaluate themselves, their team and the class throughout the run of the course. Team debriefs enable students to consider action items to improve their team skills and reflect on the team's collaboration based on what they have learned each week. Weekly surveys and individual journal entries are completed by the students prior to the debriefs and serve as the basis for guiding the debriefing and topical learning sessions.

At the end of the term, students engage in a final presentation that is delivered on-site at Vertex headquarters where students present their findings and business solutions to a large group of company executives and employees.

> *Research shows that teams who conduct debriefs outperform others by an average of 20 - 25%**

ELEMENTS OF DEBRIEFING

Key Learning Topics	Continuous Feedback	Debrief Advantages

Key Learning Topics

- Shared Leadership
- Process Development
- Trust Among Team Members
- Conflict Resolution
- Member Commitment
- Team Accountability
- Decision Making and Getting Results
- Team Composition

Continuous Feedback

Team members:

- Reflect upon a recent experience
- Discuss what went well
- Identify opportunities for improvement
- Build a common understanding by clarifying roles, priorities, and goals
- Remove obstacles to collaboration, and reach agreements about how to ensure future success

Debrief Advantages

- Team members remain or get in sync
- Debriefs help to establish team norms
- Build trust and confidence
- Decrease decision-making time
- Pairing debriefs with team charters helps teams succeed (see "Sample Assessment Tools", page 6)

*Tannenbaum, S.I. & Cerasoli, C.P. (2013). Do team and individual debriefs enhance performance? A meta-analysis. Human Factors: The Journal of Human Factors and Ergonomics Society. 55, 231-245

COURSE FINDINGS & OUTCOMES

The course addressed critical areas of knowledge and skills as students learned how to handle ambiguity and interpersonal challenges while driving their own experience through the term with minimal intervention from D'Innocenzo and Vertex representatives. This reflects the uncertainty and rapidly changing landscape of the business world and provides the opportunity for students to master these critical skills at an opportune time. The course model was an experimental, real-world collaboration with stakeholders from both the next generation of business leaders (Drexel students) and the business community.

Within each course run, the format of the class evolved based on the needs of the students. In the inaugural class in Fall 2016 with six students, the class formed a single team that remained the same throughout the term. However, as the class size increased, there was a need to divide the students into two teams during one course term. This new team dynamic provided rich insight into the challenges that arise when teams have varying levels of commitment and develop different management styles.

The two teams researched and developed their solutions separately for the first portion of the course and then merged together for the latter half of the term to present one solution to Vertex. The teams had vastly different ideas, personalities and commitment levels, making it difficult to work together at first. The two teams ultimately had to recombine accordingly and form a new identity to forge ahead. This outcome reflected the challenges of companies that restructure and reorganize their departments and teams.

Key outcomes to consider:

- Students experienced the challenges and value of working in teams.

- Students and Vertex engaged in a mutually beneficial partnership: Students consulted on real-world business issues and solutions, making them better candidates for employment.

- Students experienced the same problems as teams in firms when it came to barriers to teaming (e.g., leadership, trust, commitment, role clarity).

- Semi-structured debriefing on teaming issues improved teamwork using a platform for students to raise and address concerns with teammates.

- In terms of return on investment, Vertex employees felt the class was worth their time, raised interesting points, and offered perspective on young talent.

TESTIMONIALS

> *"When you have a problem, are given freedom and are treated like a peer adult, it creates a context where you have a real experience, and that leads to a true sense of bonding that happens in the business world. Elements of the students' recommendations will absolutely be implemented — I guarantee it."*
>
> **JEFF WESTPHAL**
> **FORMER VERTEX PRESIDENT AND CEO**
> **CURRENT CO-OWNER AND CHAIRPERSON OF THE BOARD**

"This applied learning engagement between Drexel and Vertex has provided a meaningful platform to exchange ideas and apply cutting-edge theory from the academic into the context of a dynamic and disruptive business environment. Not only has Vertex gained from new perspectives and ideas from the Drexel team, but the experience has also given the participants the opportunity to gain experience and familiarity with Vertex as a perspective co-op sponsor or future employer."

JOHN H. WILSON
DIRECTOR, GLOBAL COMPLIANCE TECHNOLOGIES
VERTEX INC.

"I have definitely been using the skills I learned in the class in my group projects this term and it's been extremely helpful."

AMY DUONG, BSBA '21
BUSINESS ANALYTICS & MANAGEMENT
INFORMATION SYSTEMS MAJOR

"We started the class by telling 'two truths and a lie' and by sharing with our team difficulties we've been through. It helped us to see that we all will make mistakes and we all will have hard times, and how important it is to be vulnerable. I was worried I would feel underqualified, but I learned that my opinions are just as valid as anyone else's."

SAMANTHA MORNINGSTAR, BSBA '20
ORGANIZATIONAL MANAGEMENT
& FINANCE MAJOR

"I don't think we cared about the grade. We all cared about what we were presenting. My teammates came up with things I never would have thought of, so I appreciated the diversity of the group's thoughts and perspectives."

ANDREW KOSINSKI, BSBA '19
ACCOUNTING & ORGANIZATIONAL
MANAGEMENT MAJOR

CONCLUSION

The class has overwhelmingly received positive feedback from students and Vertex representatives. The structure of the class is dynamic and adjusts based on the needs of each team, which is beneficial for student learning but does place a high emphasis on instructor engagement and adaptability.

The class began with a single team where the instructor was able to provide 1:1 attention to the needs of the team. With growing team size a concern, the move to a two-team class created new coordination challenges. The success of the class revolves around personalized attention to teaming needs and scalability is based on the availability of a support team. Having more than one set of eyes in the classroom becomes crucial for observational feedback.

However, over the four runs of the course, the basic teaming principles requiring attention have not changed (e.g., leadership, trust, engagement, conflict, composition). This offers promise for scalability within the class and beyond. These essential principles can be infused and reinforced in other classroom environments to exponentially grow students' teaming abilities.

For more information, please contact:
Anna Koulas, Executive Director
Drexel Solutions Institute
DSI@drexel.edu