Applying Aspects of Professional Settings to Student Teaming in an Engineering and Design Course

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Abstract

As group-based learning and team projects continue their recent surge in engineering education, there is still significant debate on effective pedagogies associated with teaching project teams. How student teams are formed and evaluated are key decisions instructors must make, all the while balancing important aspects such as team diversity, alignment with learning outcomes, and the quality of the team's work. What is often missing from the literature around student teaming is the distinction between academic settings and the environments students will experience in professional settings. This omission is problematic when juxtaposed to the motivation behind much of educators' work: to better prepare engineering students for the profession of engineering. If classroom settings continue to be just that, students will continue to be ill-equipped for their transitions into the workforce. This paper tests a unique approach to student team formation, reflective journaling, and final grading by mimicking certain aspects of the professional setting in the classroom – especially as it relates to team formation, project management, and feedback. This work builds on a previous work-in-progress paper that merged design thinking, leadership, and engineering into a cohesive origami engineering course.

Introduction

Twenty years ago, the National Academy of Engineering published *The Engineer of 2020: Visions of Engineering in the New Century* [1]. The publication called upon engineering educators to develop students' performance skills, including teamwork competencies, to augment their technical education. Since then, the engineering education community has engaged in a vigorous discussion regarding the development of these skills, resulting in various pedagogies and approaches being developed and tested. In addition to research, universities have installed leadership development programs either in or adjacent to their engineering programs [2]. However, this sudden surge in the scholarly discussion and program development has often outpaced the evidence required to establish agreed upon definitions, paradigms, and/or identify effective pedagogies. Even as recently as five years ago, there was little to no agreement in the scholarly community on what teamwork actually meant nor the most effective pedagogies for teaching teamwork [3].

The calls and discussion rising from the scholarly community around teamwork education have been echoed by industrial calls around team performance. Research of engineering team performance in professional contexts also surged since *The Engineer of 2020,* as shown in Hindiyeh, Ocloo, & Cross's [4] thorough review of the literature. These authors also identify the two primary themes of this research: factors that impact team performance, and (to a much lesser extent) frameworks of team performance. The importance of this finding is amplified when juxtaposed next to the primary themes of research on teamwork education: student capabilities and faculty responsibilities in developing effective teamwork [3]. This discordance between academia's focus toward teamwork education and industry's focus toward team performance is an important gap for engineering educators and researchers to address as they both move forward in their work. If engineering team performance researchers are identifying factors that drive

team performance, yet engineering educators are not teaching the skillsets that would enhance those drivers, then the collective response to those scholarly and industrial calls for performance skills will be slower.

To be fair, a number of scholars in varied fields have provided important contributions to the literature. Borrego, Karlin, McNair, & Beddoes (2013) reviewed the literature from industrial and organizational psychology for relevance to engineering education [5]. Wolfinbarger (2022) stressed the importance of teaching team leadership to engineers, echoing the aforementioned calls [6]. However, in many of these cases, the parallels that are drawn between essential skills of an engineer and the topics in the classroom, do not always translate across the different learning environments present in a classroom versus industrial settings.

This gap has also raised questions on what constitutes engineering leadership, and if it should be distinguished from any other leadership. As the discussion waged, many authors argued that engineering leadership *is* leadership, but must also include engineering design [7]. Later, Donald & Jamieson [8] analyzed engineering leadership programs to find dominant themes. These themes helped the authors to develop a generalized framework for engineering leadership: technical knowledge, socio/cultural context, professional skills, and metacognitive skills. The perspectives shared by these two works helped shaped the scope of this paper, and will be expanded upon later.

An important question to ask, now 20 years removed from the *The Engineer* of *2020,* is whether the efforts are working? Even in the earliest stages of teamwork education, there was an acknowledgement that educators must do more than just assigning students to team projects [9]. More recently, other authors have drawn attention to students graduating without the industrially-desired skillsets, despite the access to leadership programs, collaborative education, and other teamwork efforts [10,11]. If these efforts are not reaching their intended goal – to produce engineering leaders to meet the demands of the 21st century workforce – clearly something is missing from current pedagogies and paradigms.

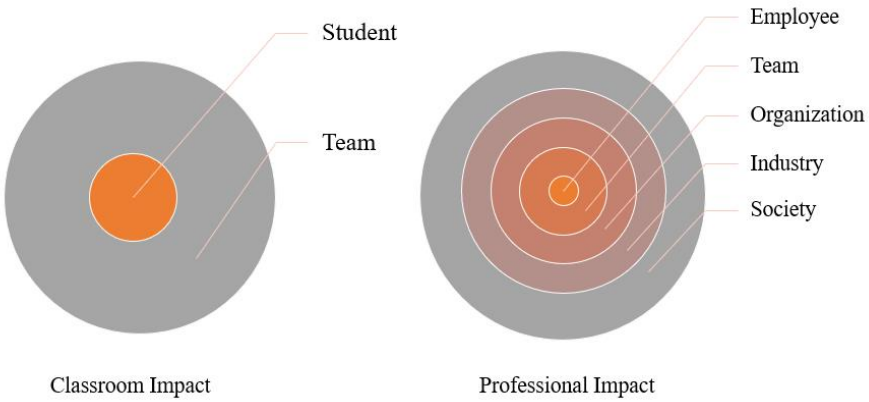
Context

To help develop the skillsets that will drive factors of professional team performance, the authors of this paper have chosen to explore the different organizational characteristics between a classroom and a company or firm. Similar to the aforementioned discordance between teamwork education and team performance research, there is a similar gap between the organizational environments of students and professionals. Although research on the subject is scant, several clear delineations can be drawn based on a basic understanding of both environments. In classroom environments, a student's performance directly impacts their team; however, there is typically little or no impact on any other team in the class. Conversely, in professional environments, the employee's performance directly impacts their team; but their performance may also impact their company, industry, and even society, as shown in Figure 1. This distinction leads to different views on accountability from students and professionals, which are strengthened further by the fact the student is a customer, whereas the employee is not.

Accountability is not only found across several sections (e.g. Clients & Employers, Peers) of the American Society of Civil Engineers Code of Ethics [12], but is an essential part of leadership – engineering or otherwise.

Fairness, or the perception of, is also different between the two settings. In classroom, fairness is often viewed as equal work distribution on a specific team project. In an engineering firm, one team member may have an essential role on the project, whereas another team member may be less frequently involved – yet they are still contributing, and valued team members. Additionally, the skills needed to perform as a team in the classroom are not the same as those needed to perform in industrial environments. Students can often get by through a heroic performance by one or two team members [13] but find that more coordination is necessary upon entry into their profession. It is important to acknowledge here the work of scholars who have recently tested creative ways of constructing team composition [14], assigning specific professional-like roles [15], or other interventions to try simulate professional environments. What is often missing from these approaches, however, is not the simulated organizational *structure,* but more so the simulated organizational *culture.* Specifically, how the professional setting provides a different learning environment than what graduates encountered in the classroom.

Figure 1. *Comparison of impact reach of team dysfunction.*



The authors were heavily influenced by Lutz & Paretti's [16] work, which explored the adjustment for engineers to a new learning environment. Their work expands on the differences between classroom and workplace environments, as well as describes the important change from formal and structured learning environments (i.e., classroom) to the informal and open learning systems found in industry. More specifically, two key aspects of the Lutz & Paretti's work were adopted for this paper: adding real-time reflection, and allowing for emergent learning goals [14].

The purpose of this paper is three-fold: 1) to help further bridge the gap between teamwork education and the actual skills needed to perform on professional engineering teams; 2) develop

engineering leadership competencies among students; and 3) to test a unique approach to simulate more professional settings in a classroom, with the intended outcome of increasing students' confidence in project management and comfort levels with professional-style feedback.

Background

The three authors formed a single instructional team for an origami engineering course. Two of the three authors on this paper are faculty members in a civil engineering department at the same home institution, a large, public R1 university located in the southeastern United States. One of them has expertise in structural mechanics for extreme loads, robotics, and experimental methods, while the other is an expert in team and leadership development. The third author is a professional design manager from a leading value-added distributor in North America, specializing in the built world and infrastructure.

The origami engineering course was most recently taught in Fall 2023, for the seventh consecutive Fall. For the first four years of the course, the course emphasized advanced mathematics and general engineering applications. For the past three offerings, the course has pivoted to incorporate more creativity, design thinking, and leadership and less theoretical mathematics. (For more insights on the redesign and new emphasis for the course, see the work-in-progress paper by some of the same authors [17]. That paper analyzed the experiences of the Fall 2023 course offering.)

It should also be noted that the course is a senior-level, undergraduate course, and part of the department's leadership minor. The course is also one of two prototyping courses in the department's innovation and entrepreneurship track, and has been the cornerstone of two study abroad programs.

The course description is as follows:

> This class acquaints the student with state-of-art concepts in origami engineering and teaches the algorithms necessary to design and analyze origami structures for innovative applications. Through the art of origami students will be introduced to the basic concepts of the design process, and will learn to approach innovation from a human-centered perspective. Combining design and engineering, students will develop origami products by adopting the process of re-framing problems in human-centric ways, creating ideas through brainstorming, prototyping, and testing.
>
> Part of the Global Engineering Leadership Minor, this course capitalizes on the design thinking approaches taught and links them to the leadership skills of team formation, empathy, team creativity, giving and receiving feedback, leading through conflict, and reflection.

The course has consistently been in demand from students, with enrollments typically falling in the 40-50 range over its tenure. For the first time, the Fall 2023 was offered one day per week for two hours and forty-five minutes. This was intentional by the instructors based on

observations from previous semesters. In a class with so much hands-on and creative work, a single longer class period was chosen over more frequent, but shorter sessions. The official enrollment for Fall 2023 was 29 students.

Before outlining the structure of the course, it will be useful to discuss the four underlying strategies the authors used in establishing their approach to the class. First, the authors recognized reasonable constrains of the classroom structure (e.g., there will still be class sessions, grading). Within those constraints, and whenever possible or confronted with a decision, the authors would lean toward what the industrial environment would dictate. In one case, a student withdrew from the course (within permissible university regulations) leaving a team with one less member. In the consultation with the team after the withdrawal, the instructors drew parallels to professional scenarios where team members leave, retire, get moved to a different project, or team membership is adjusted midstream on a project for any number of other circumstances. The team was informed there would be no adjustments to expectations on deliverables, and that the team was still responsible for developing their prototype.

Second, collaboration would be an essential component of the course – for performance, as well as learning. Courses with more active, constructive, and community-oriented learning have been shown to increase student's knowledge [18], so the class would be designed to have collaborative outputs as well as collaborative learning experiences. For example, sessions devoted to creativity and conflict resolution were based around collaborative learning experiences. For design thinking, the authors would strike a balance between individual, quiet, and reflective exercises and group, vocal, in-the-moment activities. This balanced approach would ensure that different personalities had time to process their experiences and insights, before allowing for everyone's voice to be heard [19]. The authors would also seek opportunities for teams to bounce ideas, push each other further, explore, and combine a range of perspectives when developing ideas. Given that creativity often requires courage [20] – to share and critique what's emerging from you authentically – the authors would also devote early sessions of the course to psychological safety, shared values, and team structuring. To assist teams through design process and achieve effective collaboration, the authors also were explicit on the connections between team creativity and conflict at various stages of a project [21].

Third, the class would be intentional with bringing in experiential, hands-on activities relating to creativity and the design process. The lesson on creativity required teams to collaborate on an artistic rendering of the student union; project teams were asked to go beyond campus and engage with their specific user group (e.g., glass blowers, kayakers, zookeepers) throughout the design process; the conflict resolution and management workshop necessitated team discussion; even team formation was an active, collaborative process. The discovery phase of the design process helps develop a shared understanding and avoids moving forward with (often competing) individual assumptions intact. Teams go from assumptions and "I think" that lead to knee-jerk and obvious solutions to an imagined problem, to building empathy based on legitimate expertise and appreciation of the challenge / opportunity together.

The final underlying strategy was to incorporate feedback and reflection on an ongoing basis. This was not only an effort to assist with collaborative learning [22], but to also replicate Lutz &

Paretti's [14] decision of asking students to reflectively journal throughout the semester, as opposed to just giving a final reflection upon course completion. Moreover, feedback was a driving force behind one of the research questions in this study, as there is a link between feedback and accountability [23].

With these strategies established, the authors utilized a transdisciplinary approach [24] in fusing multiple disciplines (engineering, design, leadership) with multiple settings (academia, industry), to create a unique environment to develop engineering students' leadership competencies. The particular competencies selected were driven by Donald & Jamieson's [6] engineering leadership framework, which as mentioned earlier, identified the four themes of engineering leadership as technical knowledge (mastery, innovation, design), socio-contextual (vision, impact, risk, systems thinking), professional skills (ethics, teamwork, collaboration), and metacognitive skills (learning, effectual behavior).

The authors identified two aspects of engineering leadership that would tie into all four engineering leadership themes: project management, and feedback and reflection. Project management typically includes aspects of either mastery or design (technical knowledge), understanding impact and risk (socio-contextual), the ability to collaborate (professional skills), and engaging in ad hoc learning (metacognitive skills). Feedback is an essential aspect of the iterative design process (technical), informs team vision (socio-contextual), is almost always collaborative if not ethically-driven (professional), and a fundamental part of the learning process (metacognitive).

Given these characteristics of engineering leadership, the authors developed the following two research questions:

1. Will the course design impact students' confidence in their ability to manage projects in the future?
2. Will the course design impact students' comfort level with sharing and receiving feedback?

Methodology

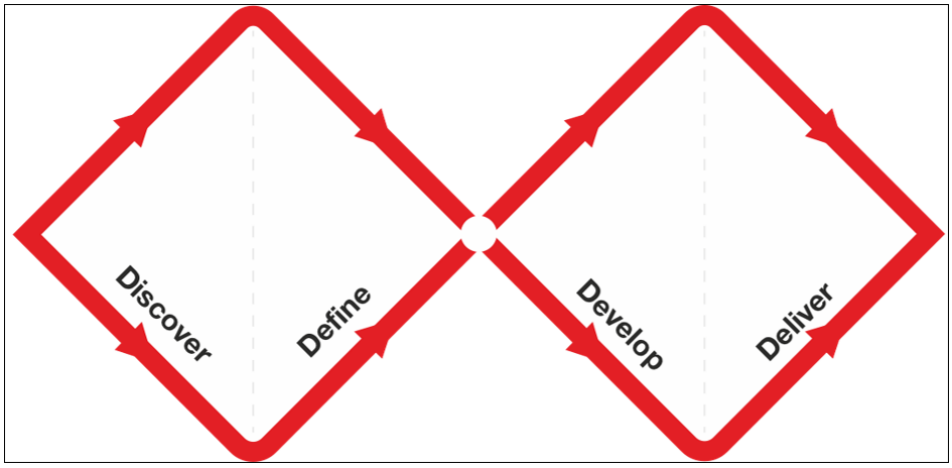
The primary modifications to the course structure (aside from the philosophical evolutions discussed earlier) were to the deliverables and grading. The course's content and grading were reorganized around a 30-30-20% split across design, engineering, and leadership constructs, respectively. The remaining 20% were equally devoted to the team's final presentation, and participation. For the deliverables, the authors utilized portfolios, one for each of the three constructs. These portfolios provided excellent ways for students to collect and track their progress, again in a real-time, fluid way.

The course also included a team formation process geared toward teams possessing balanced compatibility: shared values, logistical preferences, and goals, yet with varied disciplinary backgrounds and year in program (e.g., junior, senior, graduate). This orientation was intentional, to help promote cognitive diversity, albeit with social and motivational alignment

[25]. To form teams, students submitted individual profiles, which collected short responses about students' core values, professional strengths, discipline, year in program, and other information. These profiles were than stripped of identifying information, and placed on the wall around the classroom. Student captains were selected through an icebreaker exercise, who then initiated a relay draft process – captains would reveal the profile they selected, and that person would select the next team member, and so on, until all teams were complete.

There were several design thinking interventions inserted into the course. Design thinking is a simplified representation of the design process and provides a framework for innovation that can be used by designers and non-designers. The authors borrowed from the UK Design Council's world-renowned Double Diamond [26], as seen in Figure 2, to create two rounds of divergent and convergent thinking between accepting the challenge and reaching a satisfactory outcome. Teams were deliberately delayed in engaging with any kind of solution and instead dedicated time to building empathy for their users. The natural inclination of an engineer might be to immediately seek a logical solution to a set of well-defined parameters, but the process kept them outside their comfort zone and allowed their user insights to drive the agenda for collective inspiration and iteration. The design portfolio served to reflect on insights and ensure they carried through in decisions being made. The authors' goal with this intervention was to introduce students to the principles of human-centricity collaborative innovation, so they can carry them forward into their professional spaces.

Figure 2. *UK Design Council Double Diamond (Design Council, 2024)*



Feedback was also incorporated into the course in three primary ways. First, team members participated in a conflict resolution workshop, where students were asked to individually rate their progress in a number of areas, before discussing as a team; The areas were selected from their collective responses to group concerns earlier in the semester. Second, project teams would pair and share to each other, following a brief lecture on giving and receiving feedback. Third, in the last third of the class, instructors provided frequent, casual feedback during class sessions. This three-pronged approach was intentional to simulate both formal and informal feedback

controls, as well as the facilitative, empowering, and authoritative styles desired in managing product innovation teams [27].

For the engineering and technical aspects of the course, a learning portfolio was also utilized. At the beginning of the course, the authors emphasized the importance of the learning process to the class. The engineering portfolio allowed the students to document their experience of learning origami engineering through ten weekly entries. Greater value was placed on their progress as opposed to a specific technical solution. The portfolios were graded on documentation of process, technical competency, completeness, organization, and professionalism.

The leadership portfolio consisted of 14 weekly entries (see Appendix A) that asked students various questions on their experiences with, perspectives toward, and understanding of leadership, particularly as it related to their eventual transition to the workforce. The portfolio culminated in the fourteenth entry, which asked for a more holistic and final reflection on the course. The authors were inspired by an earlier study [28] that suggested a final reflection following consistent reflection throughout, can measure objective and subjective student growth.

From the final leadership portfolio entry, two questions were analyzed further for the purpose of this study:

1. How has this class impacted your confidence in your ability to manage projects in the future?
2. Are you more or less comfortable with sharing feedback? Receiving feedback?

To analyze the qualitative responses, a thematic coding analysis was utilized to illuminate dominant themes. From there, the authors simplified categorization to organize the collective responses as a response to the research questions. Although there is warranted discussion in the academic community on the perceived ease of thematic coding [29], the authors are familiar with thematic coding, and utilized a rigorous and tried multi-pass coding [30] in their analysis.

Results

As stated previously, two open-ended questions were embedded into the final leadership portfolio. The authors conducted a first-pass coding separately, then did a second pass to rectify any discrepancies between the first-pass themes. The thematically coded results can be seen in Tables 1 and 2.

Table 1. *Coded Responses to First Research Question (N=26)*

How has this class impacted your confidence in your ability to manage projects in the future?	Lessened	Not Impacted	Solidified existing confidence	Improved
Student Responses	1	4	2	19

Table 2. *Coded Responses to Second Research Question (N=26)*

Are you more or less comfortable with…	…sharing feedback?			…receiving feedback?		
	Less comfortable	Same	More comfortable	Less comfortable	Same	More comfortable
Student Responses	1	14	11	0	11	15

Challenges & Limitations

The authors faced two primary limitations. From a structural perspective, the class size predicated the number of teams (six) and number of students (four to five) per team. A larger class size would support a more robust analysis, while also allowing for better protection of students' anonymity. From a more philosophical perspective, it is impossible to perfectly simulate industrial settings in the classroom. The number of distinctions from a student and a professional engineer, ranging from motivational to financial to social, is simply too great for a perfect facsimile. The authors chose to address certain aspects of this environmental difference in specific ways, but acknowledge there are a variety of other pathways educators could take in attempting to build a firm-like atmosphere in the classroom.

Discussion

This study aimed to test a unique approach of simulating a more professional environment in the classroom. The investigation's focus was whether constructing such an environment would impact students' confidence in project management, and giving and sharing feedback. These two elements of engineering leadership were highlighted in particular for their relationship with all four dimensions of Donald & Jamieson's engineering leadership framework [6]: technical knowledge, socio-contextual, professional skills, and metacognitive skills.

The authors acknowledge the results for this work-in-progress are limited in nature, and that it would be premature to draw any significant conclusions from the data. However, there are positive signs that simulating a more professional environment in class does impact student confidence in their ability to manage projects, and to a lesser extent, their comfort level with feedback. Results showed marked improvement in student confidence in their ability to manage projects (over 73% of the class felt the class improved their confidence). There was some increase in students' comfort level with feedback, most notably in receiving feedback, where 57% of the class said they were now more comfortable with receiving feedback. Curiously, there was less of an increase in sharing feedback, where less than half (42%) of students said they were more comfortable. Just over half the class felt the same with regards to sharing feedback, with one student actually feeling less comfortable.

Measuring confidence has been shown to be a better predictor of achievement than self-efficacy, concept of self, or anxiety [31]. As such, the results of this paper should be helpful to any

educators teaching project management and/or leadership. Similarly, engineering and leadership educators can take away the value of incorporating feedback early and often in a course – as well as including collaborative learning. This supports earlier findings by Lutz & Paretti [14]. Furthermore, feedback is an integral part of accountability, responding timely to change, and understanding what change strategies would be most helpful in an intervention [21], all significant components of strategy and leadership.

Perhaps most interesting is the class reporting they felt more of an increase in their comfort level with receiving feedback, as opposed to giving feedback. This somewhat contradicts earlier findings [32] that suggest students are more emotionally content with giving than receiving feedback. Further research into this contradiction is needed. One plausible explanation is the impact of trust on feedback [33]; given the early sessions in this course centered on psychological safety, empathy, conflict management, and team building, it's reasonable to surmise that student teams in this class had higher levels of trust built up prior to feedback sessions.

The authors do acknowledge that further research – including replicating the approach used for this paper, pre-test/post-test studies, and more – is necessary before making stronger conclusions. That said, there are enough positive signs included in this paper that not only necessitate further research, but warrant it as well. Above all else, the authors hope that this paper will inspire engineering and leadership educators to employ more real-world scenarios – and not just real-world problems and content – in their teaching and learning environments.

Appendix A: Leadership Portfolio Entries

1. Which of the four Keirsey Temperaments make for the most effective leader, and why? (See slide 10 of Team Creativity & Leadership slide deck from 8/25.)
2. Now that you are on a team, reflect on your initial conversations with your team members. In what ways do you think you will be able to use your strengths to positively contribute to your team over the course of this project?
3. Your leadership entry last week asked you to reflect on your initial conversations with your team, and how you can positively contribute based on your strengths. Now that your team has submitted one deliverable, you can reflect on the actual *work* your team completed. How did your team perform on the first assignment? Were all team members engaged and invested in the outcome? Do you have any concerns moving forward?
4. "Before you are a leader, success is all about growing yourself. When you become a leader, success is all about growing others." - Jack Welch, former Chairman and CEO of General Electric (1981-2001).

   Reflect on the quote above, and where you are at in your own leadership journey. When you are in need, how comfortable are you accepting help from others? Do you tend to embrace help, accept it with hesitation, or reject it completely?

   When you are thriving, how willing are you to help others? How do you determine how best to help them?

5. Do you feel the Leading through Conflict session (particularly Activities 1 and 2) provided your team the opportunity to effectively identify and address your team's challenges?

   If so, how confident are you that your team will be able to move forward in a healthy manner? What role can you play in ensuring the project goes smoothly?

   If not, what do you think was the barrier in preventing your team from managing its conflict? What role can you play in overcoming that barrier moving forward?

6. For this entry, you can reflect on your team experience this semester, but you may also consider how this question might look for you in the near future and in more professional settings.

   Some projects are straightforward, with a clear picture of each step of the project along the way. Others, as you might be experiencing in this class, are less clear on the front end - they have unexpected events, external pressures or decisions that impact the project, or there's an aspect of discovery earlier in the project that shapes later stages.

From a leadership perspective, what strategies can a team employ to ensure they are continually prepared for whatever comes next? How can you individually support and/or lead your team during periods of uncertainty?

7. Given that this week is Fall Break, and the timing of posting this entry, this week's question is intentionally more closed-ended than normal. We will likely expand on this question in later weeks.

   In Friday's Team Creativity session, we talked about the importance of a team developing a superordinate identity, or a shared team identity that's above individual identities. Your team was asked to generate a company name and slogan or logo.

   For this week's entry, simply respond with your company name, and complete the statement below using the provided choices.

   Creativity is _____ aspect of leadership.

   A - an essential
   B - an important
   C - just like any other
   D - barely an
   E - not at all an

8. In last week's entry, you were asked to complete the sentence "Creativity is _____ part of leadership,' using one of the choices below. The number in parentheses indicates how many of you chose each option.

   A) an essential - (10)

   B) an important - (11)

   C) just like any other - (5)

   D) barely a - (0)

   E) not at all a - (0)

   We have spoken a few times on the difference between creativity and innovation; the former is generating new ideas, the latter is implementing them to users. If creativity is at least a part of leadership (all of you agreed with that), then it stands to reason that leadership carries with it some degree of doing something new.

Assume you are the head of a small engineering firm (100 employees) in 15 years. Where might creativity be applied to your leadership role? Is it possible to effectively lead an organization without generating new ideas? How might your answer look differently across various industries? Would your answer be the same if you are running an engineering firm vs. a factory? A university? A fire department?

9. In professional settings, teams will often have "core" team members and team leads, as well as other members who are involved on a more infrequent basis. As such, the contributions of all team members might not be equal given their roles.

   In academic settings, students are more often expected to contribute in equitable ways. However, not all students have the same workload, class schedule, or are at the same points in their academic program. For example, one student might have just one class that semester, another two might have four classes, and yet another might have three classes plus a full-time job.

   In these cases, is it still fair to expect equitable contributions from all team members? Why or why not?

10. Reflect back on your team's formation in this class. As mentioned at the beginning, the idea behind our team formation process was to build multidisciplinary teams that were complementary in strengths and compatible with values. Remember also the three aspects of team viability: performance, satisfaction, and conflict management.

    Now compare this semester's team to your other project teams in other classes. How do each of the three aspects of team viability compare?

11. In today's class, you had the opportunity to give and receive feedback from your peers. Reflect on your experience before answering this week's prompt.

    What is your comfort level with giving feedback? Receiving feedback? Is either easier to you than the other? Why?

    In today's session, a good amount of the feedback I heard being shared was in the form of questions. "Why did you design it like this?" "Did you think about this aspect?" "What does this do?" Why do you think so much of the feedback shared was in the form of a question? (Not that it's a bad thing, just asking you to reflect on it.)

12. Project teams in classroom settings often will have one or two individuals "step up" and become natural leaders of their team. Although that may be because of who those individuals are, it is often influenced by other aspects as well: the focus of the project, the other team members, outside factors, and even the lack of a formal, hierarchical structure. Most student teams don't have a organizational chart.

In professional settings, there will be an org chart. There is also more accountability of performance. As such, team (and organizational) dynamics are a bit different.

What do you anticipate will be the most noticeable difference in team dynamics as you begin to move from academic settings to professional environments?

13. Organizational leadership does not solely come "from the top," nor is it only found in grand and heroic moments. Instead, organizational leadership can (and should!) occur from anywhere in the organization - and often is demonstrated through more of a gradual influence on the organization's people, projects, and goals. Given the power dynamics in a hierarchical structure, as well as other organizational factors, sometimes credit gets misplaced, or lost through the process.

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    For this week's prompt, assume you worked for an organization of 150 employees. You've been with the company for seven years, and received two promotions. You enjoy what you do, perform well, and are valued. Although not a C-suite executive, you are middle management with a promising future at the company.

    You recognized a gap in the company's policies, and immediately initiated an effort to generate a new policy. You wrote a first draft, and shared it with a colleague for feedback, which you incorporated. You then took the second draft to your superior, who provided further feedback (which you incorporated) and suggested you get legal's opinion on it. You then go to legal, who approves contingent on a few small word changes. You accommodate them, and go to HR. HR adds in one section that was not originally included. They say they will bring it to the CEO.

    One week later, the CEO sends out a company-wide email announcing the new policy. You are not mentioned. Ten minutes after you receive the email, the CEO walks by your office, knocks on your door, and says "hey, great work on that policy, thanks!"

    ***

    Envision how you might feel in that scenario. On one hand, because of your leadership, the company now has a policy addressing an important matter, one that was clearly important to you. On the other, you put in time and effort on it, ushered it through the organization, only to receive a casual thank you in passing.

    How do you feel? Are the any factors or details that might influence your response?

14. Your final entry should be a holistic reflection on the semester, taking into account all that was shared today. The prompt is three parts:

    1) How has this class impacted your confidence in your ability to manage projects in the future?

    2) Are you more or less comfortable with sharing feedback? Receiving feedback?

    3) How has your team experience influenced your perspectives on leadership in both academic and professional settings?

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