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Teamwork: Creativity in Leadership

From taking a small action that might affect an individual such as learning how to cook using peer made videos on youtube to implementing measures that have global impact like establishing measures to mitigate the impact of the latest public health crisis, at every scale humans make things happen by working together. Collaboration -- especially learning how to collaborate in variegated contexts with diverse groups of people to achieve transformation -- is a critical skill that necessitates ingenuity. If people do good work together and if they find ways to improve the way that they work together, the quality of that work and even what it aspires to be can improve.

Teamwork is a creative domain. Learning how to work with others to drive an outcome in any context depends on developing the ability to reach out and bring people together to work towards a common goal. In my opinion, the most successful outcomes arise of their own accord when people feel highly motivated and positive about their contributions. Creating productive teams involves growing one's inventiveness in organization and task or domain specific processes as well as concurrently expanding one's ability to communicate with and support others. My aim is to examine how elements of creative practice apply to teamwork by evaluating my own practice and its evolution in order to make the case that using creativity support to inform leadership can help achieve dramatic transformations in what groups of people can accomplish together. To limit the scope of the discussion, I focus on instances of direct collaboration with others. My practice, through organization and communication skills, rests on developing the ability to draw out the creativity and leadership of others.

Learning

To begin, how does one learn how to work in teams? Can a constructivist approach apply to teamwork? Thinking of Froebel's gifts and the scaffolding to experiment with assembly, I am reminded of my formative experiences working in modular teams. For instance, I was part of a grade school robotics team (Girls Excited About Robotics = GEARS). In addition to addressing the engineering challenges of the annual mat that had several small tasks for a robot to complete and required both designing appendages for each task and the physical robot and programming it, the competition had a research portion. Each year's challenge was based on a scenario and each team had to complete a presentation on how they could use a STEM-based approach to mitigate the problems posed in the context of that challenge. Since we had to learn how to divide ourselves up based on our strengths and interests, looking back this was an excellent opportunity to learn the building blocks of teamwork. The challenge was too large for there to be a single dominant contributor and we had to figure out how to rely on each other. While my initial motivations may have selfishly been to get others out of the way so I could do the work that most interested me exactly my way, I realized by encouraging others to take the lead in

particular aspects -- from programming to research to presentation -- more people felt confident of their role and contribution and worked harder and we did better overall. While this particular activity does not have low barriers to entry, a myriad activities with modularity that require self-coordination on multiple fronts can help children learn how to manage applying their strengths and leveraging each others strengths effectively.

I'm also reminded of Seymour Papert's discussion of evocative objects not because of the joint association with gears but because that process of building off a pre-existing mental model where people have confidence and excitement lends them the enthusiasm to do even more but in the context of the team has to be managed. To continue using my involvement in GEARS as an example, those who had been burnt by bad experiences in particular STEM courses were hesitant to try certain aspects of the work. They had to be encouraged and guided through those parts of the process. At the same time, those who excelled were encouraged to take the lead in teaching and had to be instructed in not exuding superiority but rather exhibiting patience in sharing their decision making process. Both exercises developed the creativity and leadership skills of the people involved -- in one case to stretch and try to understand something that felt uncomfortable and in the other to develop their ability to communicate and guide someone through an unfamiliar process. Setting up parameters for how people bring their pre-existing mental models to the table helped make each person feel more integral to the team and gave them the ability to better use that pre-existing connection when it was understood and shared knowledge amongst the rest of the team. Just as previous models are used as building blocks in constructivist approaches, learning teamwork requires engaging with each individual's previous experiences to leverage them for the benefit of the whole team.

Finally I benefited greatly from trial and error in sandboxed environments which gave me the opportunity to reflect on the ramifications of interpersonal decisions. Just as any creative discipline evolves with regular practice, teamwork can also improve with practice that provides the opportunity for self-assessment and reflection and peer feedback. Two examples leap to mind. First, as a high schooler I transformed our Women in STEM club (WiSTEM) to be an umbrella club interfacing over 20 other STEM clubs on campus. Each grade had approximately 180 students and by the end of the year almost 400, over 50% of the students were participating in this collective effort. I focused so much on getting things done that I was not the most empathetic. I'd push people to the point that a younger student had a breakdown and called me a "human steamroller." I've since had the opportunity to grow in being concerned for the well-being of the people I'm working with and focusing on their needs first as opposed to just driving full steam ahead on getting things done. Second, perhaps taking some of that learning, I had been involved in a critical thinking skills competition called Future Problem Solvers for a few years. My team was supposed to be successful given the range and depth of our accomplishments, but in our second year of competing, we didn't even qualify at the local level to move on to the state championship. While we paid verbal homage to ideas of collaboration, we were fixated on finding ways to be the superstar within our group. While I think our camaraderie established to some extent over some of the ludicrous aspects of the competition helped, I believe intentionally creating the space for openness with respect to how we could support one another (not an easy thing to accomplish) and applying the same approach of giving people maximum visibility and ownership over different parts of not only the competition but also in terms of their role in the organization while providing moral and familiar support

for each contributor helped transform our dynamic. Also, since there was an external measure of our performance, we were able to clearly evaluate our transformation overtime. In a couple years, we went from losing at the local level to winning first place internationally. Teamwork benefits from regular practice especially in contexts where it can be measured and where opportunities unfold for both self reflection and peer support and critique.

Process

Another hallmark of creative domains is that they involve processes that are less problem-oriented with linear product focused workflows and rather depend on process-oriented workflows where outcomes emerge overtime as a result of trial and error. Teamwork in part relies on the ability of the team to move past simple delegation of tasks. Effective collaboration hinges on the ability to work through struck points and develop the ability to rely on each other to discuss the iteration and evolution of process. I've seen dramatic transformation arise as a result of this process where the group was able to achieve something beyond what was deemed within the scope or capability of the team. Consider WiSTEM. We grew drastically from a starting point of being a 20 person club with responsibilities centered around organizing a formal research symposium. That growth did not happen because a single person came up with a vision for how the club would transform in three years time. I approached members to challenge them with what might be feasible in terms of organizing smaller scale events and gauging their interests. Overtime, it became apparent that there was overlap in membership and interest in doing inter-club collaborations. My role was fairly straightforward. I let people come up with their own ideas and provided support and encouragement often in only small doses at key moments and stitched together processes and connected people as we built momentum. In addition to developing multiple leadership roles with specific scope that could be executed on as creatively as possible, we developed organizational and marketing tools to support our needs as they evolved. I think what mattered most was letting people run with their ideas and truly having them be a part of the process itself. This pattern was also evident when I was an executive on the Student Advisory Board to the Princeton University Art Museum. There were 5 executive members and about 25 other students. To organize our annual Inspiration Night event, I didn't want to cross items off of a checklist and have 5 people leading the charge with 50 supporting hands and an occasional idea chimed in. I wanted to know what people were interested in doing themselves and which communities they were a part of and wanted to engage with in the context of using art as a starting point for discussion. The resulting event was very different from anything we'd planned before and brought in a myriad of people including many first-time visitors to the museum. Almost half of the members of the board were also co-facilitators along with representatives from collaborating student groups, either cultural or social justice organizations, and played a significant role in the event. Others were responsible for inviting different student communities into the conversation (the theme of the event was Art & Activism). Again bringing people to the table in terms of ideating and improving the process itself, rather than using a rigid problem-oriented approach helped transform what we were able to achieve. Instead of having a fixed target, our workflows resembled reflection in action. We explored the boundaries of what might be possible and the final outcomes depended on this process of action-observation-action. Our interactions shaped and were shaped by our experience of collaborating.

While it's important for teams to find ways to engage with one another by transforming goals so that they are process-oriented in a manner that invites collaboration and input, providing clear scaffolding and scope is also useful so that people experience optimal engagement and are able to do effective work in the context of the organization. As Mihaly Csikszentmihalyi in "The Conditions of Flow" writes, every activity with flow "provide[s] a sense of discovery, a creative feeling of transporting the person into a new reality" (74). In order to make or achieve something transformative and new, it's necessary to provide the opportunity for people to experience flow and moreover the result is empowering. I think I can best highlight the need for flow by pointing out instances where I did not provide it. To return to the art museum event mentioned above, the initial stages of planning were perhaps too open-ended. Instead of hitting the ground running, there was a lot of confusion while the event slowly took shape that led to a rather compressed timeframe. Providing constraints helps people understand the way they are being challenged, and providing tools or support so that they feel that they can meet the challenge helps them operate in a space where they are balancing challenge and skills. During the first half of my undergrad, I was highly involved in finance extracurriculars. I was given leadership over one organization's equities research curriculum and encouraged to take leadership in another higher profile group. At first, very bright students struggled with investment research tasks -- either they were too constrained and failed to produce compelling analysis or they were given free reign and did not feel like they knew where to begin. In taking their feedback, I was able to structure some resources that were more effective in providing resources and increasing depth as needed to support rather than direct learning and their processes. In the second organization, I was asked to set up processes but then expected to move on immediately. Not only did I struggle to manage my time between doing my own research and legwork to set up processes, but I also did not feel a sense of control or agency as I wasn't able to spend any time iterating on the infrastructure that I was helping create. Furthermore, given my concerns about being able to execute I became increasingly self-conscious about my role rather than focusing on the challenges presented my work. The intrinsic joy or curiosity diminished, and I believe my workflow did not support autotelic engagement. Keeping in mind the conditions necessary for flow, setting clear goals, evaluating the ability to make progress, providing clear immediate feedback and iterating on the scaffolding to provide challenges while balancing skill and available resources can help organizations improve autotelic patterns and improve how effectively people are able to contribute. I want to underscore that this is critical because when granted the opportunity to have a group of bright people work together, if the dynamic is not working for whatever reason it ought to be debugged and there is no reason why it cannot improve. I also believe each member of a team has a responsibility to be mindful of their teammates participating and feeling empowered in their contributions.

Materials & Mediums

Not only can teamwork benefit from a critical assessment of the processes involved in creating team dynamic, but it can also be improved by better utilizing collaboration tools. In my opinion, using tools with affordances either designed for collaboration or that augment interaction and taking advantage of these affordances provides immediate support for any organizational effort. First let me share two ineffective uses of Google docs. In one student organization, there was a designated notetaker who would

share a doc with view only privileges. They would sit there and flesh out the agenda with notes not about the nature or evolution of the discussion but rather by adding bullet points detailing each person's input and the ultimate resolution. One person had editing access to the boundary object that came out of a meeting, and it was a fragmented summary of the discussion. In another group, each person had a designated role, and the president would send out a doc before the meeting where each person would write out an update. During the meeting, the president would ask each person to give their update to the president out loud who might then add her own remarks without input from the rest of the group unless it was specifically requested. While these two examples are drastic, they illustrate how materials to support teamwork with affordances to augment collaboration can be used disadvantageously. Instead of supporting interaction with comments, revision history, collaborative making or ideating, they contributed to a rigid workflow and hierarchy. As a counterexample, in organizing the art museum mentioned above, 15 different student groups and several university employees had access to a shared spreadsheet. We greatly relied on revision history and linked google docs to detail information about artifacts and student groups and to add information. It's worth mentioning while it was clear to see who edited what and made a specific comment, by not highlighting direct attribution for each and every contribution, there was shared ownership over not only the boundary object but the ideas created within. Also, by using tools as creative work spaces we created the opportunity to revisit content and iron out form after figuring out content. In another context, I was working on a team project to create a textbook exchange website. One member wanted to add value by contributing specifically to front end design. After about a week, instead of adding to the project she had invested her time in modifying elements already designed by other members who were greatly dissatisfied with the outcome of her unexpected revisions. We could have better used github workflows to enable a creative workspace as opposed to undermine teamwork to avoid the somewhat comical confrontation that ensued. Materials that support teamwork must be used with intentionality so that they augment the experience of working together.

Additionally, it bears mention that communication tools also constitute a medium for shaping teamwork. Depending on the needs of the organization, Slack channels, Facebook groups, mailing lists and more may be the best medium for communication. While I've found it's important to standardize what is used throughout an organization, an awareness of the communication tools that people gravitate to for informal communication is invaluable because tapping into those habits can augment the degree to which people interact with each other as peers. When I took on a significant leadership role in my sorority Kappa Kappa Gamma, we were on the brink of dissolution with 30 members. We bounced back to nearly full numbers around 115 members by the end of the year. Part of the problem was that we used outdated means of communication including a mailing list (primarily for formal matters since our advisor was attached to it) along with GroupMe, an app that most people did not necessarily engage with on a casual basis. In addition to some restructuring of roles and responsibilities, we created informal committees or task forces based on Facebook group chats and changed how we used our pre-existing modalities (mailing lists were used like bulletin boards). Truly, it was remarkable to observe how involved people became and how much energy they brought to the table. In the context of teamwork, using the right communication set-up constitutes decoupling form and content. The team comes together outside of the strict confine of the task or goal at hand. Perhaps, I had also learned after a less successful experience of trying to start a squash team at my high school and eventually a bay area squash league. I felt more comfortable using formal communication, emails and invites, but that constraint killed the participation almost immediately.

The squash club at least persists but I played a much smaller role in it or it didn't evolve into something with greater potential. Effective collaboration depends on the ability to create and rely on proximity with others, and the right medium facilitates interaction. Clearly, teamwork and collaboration will be stilted without a sense of a team or frequent interaction. Understanding in addition to shaping the landscape of communication and interaction is critical for setting up an effective team.

Collaboration

In particular, teamwork is unique as a creative domain because the team itself constitutes a boundary object. Gerhard Fischer, author of "Social Creativity: Turning Barriers into Opportunities for Collaborative Design," writes "[b]boundaries are the locus of production of new knowledge" (157). So, effective teams consist of boundaries because they aim to create. However, the aim of collaboration within the context of any team beyond creating the target outcome also ought to include creating buy-in for participants. Since teams can be thought of as a "locus of production" where there is interaction amongst a variety of perspectives and disciplines, increasing buy-in increases the quality of production. In my junior year of highschool, our class was losing the campus wide spirit competition, a year long competitive event based on points scored for small scattered contests between class years. We were about to leave for winter break with the lowest points score for that point in the academic year in the history of the competition. With two days to go, nobody volunteered for window painting, that practice of seasonal painting of windows for the holidays. Out of the blue with no previous involvement in class activities, I had an idea and because nobody else was doing anything anyways got the go ahead. We set up projectors to project Thomas Kinkade holiday paintings on windows and then paint over them. Anyone could do it. We worked late into the night roping in any one in our class we could find. People who stopped by -- a soccer player, a debater, a faculty member (faculty were fair game) called in their friends on campus to pitch in. I didn't downplay my involvement, but I didn't exert control or influence over who did what. I just asked people if they'd take responsibility for this aspect or find someone who could help in this particular way. We won and the windows were beautiful. I think people sincerely enjoyed working together with others they wouldn't normally interact with and felt proud of their contributions to the project which often went beyond painting a particular lamplight and involved getting someone else to join in. While I love the idea, I'm not a fan of the term crowd-sourced. Crowd anonymizes and reduces the contribution of the individual. Even though this was a crowd-soruced project and that contributed to the success and detail of the final outcome, an aspect of the experience underscored and made people proud of their personal contributions and gave them joy in working with others. Augmenting buy-in contributed to a collective ownership and sense of shared experience and is one way to both make the outcome of teamwork and the act of collaboration more resonant and transform its quality.

Lastly, teamwork is perhaps most transformed by changing structures to facilitate collaboration. It's like tangrams, one has to puzzle out one amongst potentially many productive arrangements to achieve a desirable outcome and exploration also yields new results. Most of my work in organizations that I believe has led to transformative outcomes has constituted talking to people, figuring out what motivates them and what they think they're good at versus what they've done, asking them if they'd be interested in taking something on or or what they'd like to see happen and how I can support them and

then challenging them do it. I think it's significant enough to reiterate that most of the work consisted of setting people up and then getting out of the way and stepping in to provide support or troubleshoot as needed. For instance, in working with my sorority a lot of this work happened behind the scenes. We set up events to appear spontaneous which required different people to pitch in and ideate and plan. We also changed around who was responsible for what in an informal context. For example, one member wanted to host weekly meals. Another one wanted to lead coffee outings with new faces as a way to meet new members. Another girl wanted to be in charge of creating a spreadsheet that detailed possible recruits and their connections to others in the group. My role was to simply help coordinate efforts and multiple fronts and help each person pitch in the way they thought they'd be best able to contribute. Based on our experience, we eventually requested and succeeded in rearranging our chapter officer roles, positions that have been historically standardized across the country and some international chapters, in order to help future years streamline and group some of the responsibilities that we observed occurred together organically. Fischer explains "[c]ollaborative design requires a balance between (1) interdependence, collective action, and power of connection on the one hand; and (2) individuality, autonomy, and trust in one's own strength on the other hand" (159). On one hand, it's critical to foster interconnectedness and facilitate collaboration amongst team members, and on the other, it is imperative that each person is able to contribute in a manner aligned with their strengths and interests. Rearranging roles and responsibilities, facilitating ease of transition, and maximizing individual contributions is key to the creative practice of effective teamwork and can radically affect what a team is able to accomplish.

Recently, I was invited to an alumni panel at my highschool for the annual research symposium that WiSTEM organizes. Documents I created are still in use -- boundary objects spanning time and still shaping collaboration. Humans have unique potential to create at every level because of how extraordinarily effective we are at creating together, and teams are a place where all aspects of divergent thinking flourishes from brainstorming to using free association beyond an individual but rather a group is capable of generating to playfulness based in interactions. Moreover, working in teams provides an opportunity to develop "little-c" creativity as individuals become more adaptive and innovative in how to collaborate or make an outcome as each experience presents in own challenges. And perhaps the best result of understanding teamwork as a creative domain is this -- if we improve the way that we work together, the work we do together improves.