Using a Wilderness Environment to Enhance Change-Creating Leadership and Community

Mary Parker
University of Houston-Downtown

Undergraduates enter their university experience with differing levels of maturity, belonging, and leadership. Enhancing these character-building traits to support confidence, competence, academic achievement, as well as collaborative qualities the employment world demands is the goal of most universities, and the outcomes are ultimately interpreted as individual growth. At UHD, senior level peer mentors (juniors/seniors) are selected through a nomination process by self, faculty, or current peer mentors. This occurs at the end of the spring semester in preparation for the upcoming fiscal year. Often times, the single attribute considered for nomination focuses on enthusiasm alone. How can community and leadership be intentionally bolstered within any mentor group leading to a community of STEM undergraduates within a three-month period prior to a new semester? This plan outlines a journey of unfamiliarity, physical/mental challenge, and community building leading to enhanced leadership all while in a wilderness environment.

Keywords: leadership, undergraduate training, mentoring program, ropes course training

LITERATURE REVIEW

Mentoring Supports Community Building and Student Growth

Mentoring can be thought of in multiple ways, such as coach, counsel, guide, shepherd, and tutor. All of these roles associated with mentoring infer the idea and action of being considered "trusted", i.e., demonstrating reliance of character, ability, truth, and confidence (Merriam-Webster, 2022). Campus Compact (2017) considers the question of best practices for campus-based mentoring programs. This is an important question as more and more university environments as recognizing the need on the part of first-generation and minoritized entrants needing a support system that can offer encouragement in the areas of academics and personal growth. With mentoring connections/relationships built between individuals, content areas, declared majors, and careers as well as with individual confidence and capacity. Mentors are essential to a more rapid understanding of the collegiate life and expectations of the environment. Mentoring can improve students' leadership and communication skills as well as social skills and seeing the future more clearly.

Mentor training is critical to building skills in those undergraduates who will take on mentoring within the university. The focal skills needed within the training include: 1) communication skills; 2) cultural sensitivity; 3) conflict resolution; 4) an understanding of motivation; 5) responsibilities as peers and as mentors; 6) time management issues for mentor and mentee; and 7) academic success and what these skills look like and can be developed. Often training should consist of up to 3 hours per week contact with mentees

and an orientation session each academic year. Mentees often support the development of non-cognitive skills connected to success in academics. In like manner mentor orientations encourage development of many of the non-cognitive skills for the undergraduate mentors. These non-cognitive skills are frequently referred to as critical thinking, motivation, communication skills, work ethic, integrity, time management, leadership skills, and grit (Khine, 2016). Others narrow the focus of three non-cognitive skills on three major competencies, that of grit, self-control, and social skills (Zhou, 2017). Educators, motivated by the emerging technologies, continue to innovate finding ways to nurture creativity and challenge the minds of learners using inventive approaches (Khine & Areepattamannil, 2016).

Use of Challenge (Ropes) Courses in Building Mentors

Much research suggests that ropes courses can have significant impacts on many of the non-cognitive skills mentioned as significant to mentor/student development. Some reports indicate increases in the belief of themselves as a result of the challenging situations. Believing that they could deal with and successfully overcome the challenges, these students gain perspectives of themselves in terms of capacity to grow, work ethic, and other non-cognitive skills. Ropes courses have been used an approach to encourage positive grow (Thor, 2014).

Challenge courses have become very popular as mechanisms for groups wanting different and unique ways of achieving specific goals for their students. Some goals described in the literature include confidence-building, problem-solving, increasing assertiveness, increasing motivation, and tapping into leadership capacity while also influencing positively self-esteem, group cohesion, work efficacy, and leadership capacity. Participation in a challenge course has a significant positive effect in increasing an individual's leadership and work effectiveness after just half-a-day on a challenge course with results lasting up to six-weeks following use of the challenge course (Odello, et.al., 2008).

Challenge courses are categorized as either low ropes or high ropes. Low ropes include activities that may require spotting, where a trained facilitator spots the individual/s participating in the low activities. Generally, low ropes focus on group development through problem-solving and team-building remaining rather close to the ground. Sometimes, low rope activities may include not ropes but games, icebreakers, and trust activities when no low ropes are available. High ropes are activities requiring a facilitator, trained as a belayer, to remain connected through a harness to the person engaging on the high ropes, while still on the ground. High elements are usually 30 up to 50 feet above the ground and involve movement from one end of the challenge to another while being attached to the belayer on the ground. These elements offer physical and mental challenges focusing on individual development rather than team development (Gillis & Speelman, 2008).

UHD Using Challenge Course Experiences to Grow Capacity of Mentors

Brief Infrastructure

At the University of Houston-Downtown Scholars Academy small learning communities (SLCs) made up of discipline-based groups form the structure within the Scholars Academy program of cocurricular support for the 150-180 member community of science, technology, engineering, mathematics (computer science, data science and pre-health professions) or STEM+. This mentoring infrastructure is composed of 15-18 smaller learning communities representing the natural science, the computer science and engineering technology, and mathematics and statistics disciplines. Expert mentoring and peer mentoring establish the relationship building within each discipline-based group and across the entire Scholars Academy community. A faculty coordinator of the peer mentors sustains ongoing communications and training throughout a semester. Likewise, a faculty member and director of the SA brings together the faculty mentor group twice a semester in a pre/post fashion for training and feedback. The role of peer mentor coordinator was established to train the upper division peer mentor undergraduates selected to assist the discipline-based faculty mentors and enhance peer-to-peer communications/mentoring. Mentoring groups (SLCs) focus upon maintaining a limit on the number of mentees within the group. Ideal numbers are evidenced to be between 10-12 members per mentoring group.

Faculty mentors and peer mentors comprise the small learning community infrastructure. The faculty mentor represents the expert near-peer or expert-peer relationship builder and mentor. The other leaders in this loose hierarchy of each small learning community is the peer mentor representing the peer-to-peer relationship builder and mentor. In the normal operational semester, planned, face-to-face opportunities for faculty and peer mentor interactions occur throughout the semester on a monthly basis. These interactions target cognitive and non-cognitive learning such as: 1) personal skill development, 2) social supports, 3) formation of study groups, 4) sharing notes and experiences about classes targeting academic strategies, 5) building friendships and commandries, and 6) providing people connections in addition to giving purpose to the planned monthly network meetings. Most influential are the opportunities for role modeling successes from upper division peer mentors and other undergraduates transcending more than academics, such as career, gender, culture, and ethnicity (Jacobi, 1991).

Key to the infrastructure of mentoring is the student leader acting as the peer mentors and a faculty PhD mentor over each discipline peer mentor group. Peer mentors meet monthly with the leadership for training communications, revisit common missteps, celebrate full participation in SLC activities, and share hints among the peer mentors that worked within their SLC so that these might be integrated into other groups. The Peer Mentor Coordinator takes on the role of supervisor/trainer, thereby maintaining the peer-to-peer role of the peer mentor. Of utmost importance is ensuring the peer mentors do not take on judgmental or supervisory roles within their groups or the peer-to-peer trust is likely lost. Peer mentors must be seen as peers to each SLC member, one who is taking also courses but through their own personal experiences in college is someone who can be trusted as SLC members seek advice, information, collegial friendship, and connections. Peer mentors do realize the role includes giving advice, being a trustworthy shoulder to lean on, and role modeling success which is especially impactful for minority and first-generation undergraduates.

CREATING COMMUNITY AND LEADERSHIP IN A WILDERNESS ENVIRONMENT

Upper division peer mentors are selected through nomination by self, faculty, or current peer mentors. This occurs at the end of the fiscal year in preparation for the upcoming fiscal year. How can community and leadership be intentionally bolstered within this mentoring group leading a community of STEM undergraduates in a three-month period prior to the new semester starting? This is where the challenge course within a wilderness-themed environment offers this group a journey of challenge, unfamiliarity, physical/mental challenge, and community-building through high and low rope courses.

In UHD's case a contract is setup with one of many challenge courses located "out of civilization" (meaning there is no cell phone service). UHD selects Camp Choyeh located in Livingston, Texas, approximately 50+ miles north of Houston, Texas. This environment is selected based on outstanding facilitators and the emphasis on safety across all elements. Cabins are air conditioned, but undergraduates are required to bring all bedding materials and personal sanitation materials. Peer mentors are intentionally paired together for the entirety of the retreat. Throughout all activities the paired peer mentors are charged to learn about each other. Partners will later be quizzed using a familiar game of the famed television show "dating game". A brief agenda of the three-day period provides a glimpse of the intentional activities undertaken at the retreat (see Table 1 below).

TABLE 1
EXAMPLE OF TRAINING SCHEDULE

Friday, August 23	
12:00	Arrival (unpack if time)
12:30	Lunch----
12:55	Group Meeting (Facilitated by Director/Peer Mentor Coordinator)
1:30 – 3:30	Low Ropes / Team Building-----

3:30 – 4:40	Volley Ball / Team Building-----
4:45 – 5:30	Archery
6:00	Dinner----
6:30 – 7:30	Unpack and Rest
7:30	Group Meeting (Facilitated by Director/Peer Mentor Coordinator)
9:00	Teamwork activities
Saturday, August 24	
8:00	Breakfast----
8:25 – 9:20	Group Meeting (Facilitated by Director/Peer Mentor Coordinator)
9:30 – 12:15	High Ropes---- wall, pole, zip lines, etc.
12:30	Lunch----
1:00	Group Meeting (Facilitated by Director/Peer Mentor Coordinator)
1:45 – 3:45	Canoeing
4:00 – 5:30	Free Swim, Blobbing or volleyball
6:00	Dinner----------
6:45 – 8:00	Group Meeting (Facilitated by Director/Peer Mentor Coordinator)
8:15	Teamwork activities
9:30	Games / Rec Center / Campfire
Sunday, August 26	
8:00	Breakfast----
8:30 – 10:30	Group Meeting/Wrap Up
10:30 – 11:00	Pack Up and Clean Up
11:00	Depart

Faculty mentors may or may not attend the retreat dependent upon the accrued cost associated with their attendance and their personal availability. In instances where they do attend, they are paired with another peer mentor pair and given the challenge to learn their own peer mentor better.

Assessing Growth in Development Qualitatively

Prior to the spring 2021 event at Camp Choyeh, several meetings indicated to our leadership that those selected as peer mentors were in what we elected to name a "shut down" phase. Shut down was selected due to the lack of use of communication avenues by the undergraduates selected to comprise the leadership team, lack of empathetical feelings espoused and demonstrated in one-on-one meetings with several of the peer mentors, and lack of focus on the needs of mentees rather than themselves. With extreme sincerity the Exec.Dir and the Peer Mentor Coordinator had never witnessed this type of behavior in the last 14 years! We blamed COVID exacerbating feelings of alienation as well as fending for their own survival. After much conversation with these three peer mentors, all three were dismissed from the STEM program and only one remained with the organization. Multiple conversations produced some small themes. Student one, male, kept explaining how he was overwhelmed both at home and in school work. He was very upset that his hiring status had taken such a lengthy period that he felt he was being a peer mentor for free. Additionally, his family was feeling the pinch of COVID in the workplace. Student two, a male, stated he needed to keep himself up and did not have the fortitude to do this for the peers he was mentoring. He decided to do nothing. The peers in his group were so overwhelmed, they came to seem me in my office and this is where it was determined that the peer mentor was not supporting the peers. Finally, the female, a legacy member (two siblings were peer mentors/members) was dismissed due to lack of care, ready to graduate and deciding independently to drop the leadership position. This was the most disturbing removal

as previous siblings were stellar peer mentors (outside of COVID). After much introspection, I believe the fact that she has undue amounts of stress accruing due to being the third in line for the leadership position. She was the youngest in the family and it appears not used to stepping up.

Director and Peer Mentor Coordinator prepare a brief pre-survey including reflective comments one-week prior to the wilderness camping experience. All newly inducted peer mentors must complete the survey before the trip to Choyeh begins. The pre-survey provides interesting, useful information related to each peer mentor's attitudes and anticipatory mindsets. Following the night of the first full day of camping, a gallery wall is setup for peer mentors. Three questions are posted to peer mentors to individually reflect on personal challenges faced in day one, personal changes anticipated (these are placed anonymously on the gallery walk), and later a post-survey is administered. See excerpts of the three questions and responses by undergraduate peer mentors below in Table 2.

TABLE 2
MARCH 2022 ANONYMOUS RESPONSES

Team Goals	**Personal Goals**	**Something I learned About Myself**
Communicate with my group	Become better leader	All perspectives are valuable
Connect with others	Learn how to guide networking sessions better	All ideas deserve space
Bond with team	Be in the moment with everyone	Am more confident in what I am doing
Get new perspective, learn new things	Be intentional with my words	Learned to listen to others
Building trust	Control anxiety to communicate with the group	Trust in the groups' capacity to complete their tasks
Creating a comfortable environment	Build individual character	It is okay to give up/postpone something
Build relationships with mentees	Establish confidence	
Learn new method of leadership	Discover two weaknesses about myself and test my stamina	
	Get insight about myself	

In August of 2021, UHD was set to attend its first retreat in the wilderness but received a call from Choyeh asking if our university would still attend, especially since the other UH System schools had cancelled due to the surge in COVID! We postponed until the spring of March 2022 when we decided to take the current leaders to the Choyeh retreat (none of these peer mentors had ever attended due to COVID). Three years of COVID quarantining wreaked havoc on a sense of belonging, community, and the nature of team amongst our peer mentors. This was evident in the loss of undergraduates, i.e., non-maintenance of gpas, or university withdrawal, normally not seen. There was tremendous disconnection among the peer mentors themselves and between their mentees due to no face-to-face interactions. Our March 2022 wilderness leadership training with challenge course low and high elements quickly enabled the breakdown of COVID barriers, encouraged exploration of common ground, strengthened communication skills, increased group sense of community, and deepened commitment of individuals to the connectedness within the group and increased levels of belongingness. After the first low element team building exercises on day one, the change in communication, energy, camaraderie was palpable!

CONCLUSION

STEM undergraduates in leadership positions need experiences that develop teamwork, community, and connectedness in an environment that takes them away from the "maddening crowd". For UHD undergraduates in an urban university, these experiences in the outdoor wilderness provided modeling for each leader to bring back to their discipline-based group where they could in a slightly more limited fashion undertake similar training experiences. Leadership development and community-building within mentoring programs cannot be taken for granted, rather it must be actively and intentionally nurtured to grow the leadership capacity of the leadership team as well as personal attributes for each individual undergraduate.

REFERENCES

Allen, K., & Bowles, T. (2012). Belonging as a Guiding Principle in the Education of Adolescents. *Australian Journal of Educational & Developmental Psychology*, *12*, 108–119.

Allen, K., Gray, D., Faumeister, R., & Leary, M. (2021). The Need to Belong: A Deep Dive into the Origins, Implications, and Future of a Foundational Construct. *Educational Psychology Review*. https://doi.org/10.1007/s10648-021-09633-6

Blad, E. (2017). Students' Sense of Belonging: What the Research Says. *Education Week*. Retrieved from www.edweek.org

Campus Compact. (2017). *Best Practices in Campus-based Mentoring*. Retrieved from Campus Contact.org.

Cordle, J. (2015). *The Effects of Utilizing High Element Ropes Courses as a Treatment Intervention on Self-Efficacy*. Retrieved from https://tigerprints.clemson.edu/all_theses/

Covey, S.M.R. (2006). *The Speed of trust: the one thing that changes everything*. Simon & Schuster.

Gillis, H., & Speelman, E. (2008). Are Challenge (Ropes) Courses an Effective Tool? A Meta-Analysis. *Journal of Experiential Education*, *31*(2), 111–135.

Haras, K., Bunting, C., & Witt, P. (2006). Meaningful Involvement Opportunities in Ropes Course Programs. *Journal of Leisure Research*, *38*(3), 339–362.

Jacobi, M. (1991, Winter). Mentoring and Undergraduate Academic Success: A Literature Review. *Review of Educational Research*, *61*(4), 505–532.

Khine, M.S. (2016). *Non-Cognitive Skills and Factors in Educational Success and Academic Achievement*. DOI:10.1007/978-94-63000591-3_1

Matthews, D. (2008). *Connections 2008: Focus on Communities*. Kettering Foundation.

Merriam-Webster. (2022). *Trust and Mentor*. Retrieved from https://www.merriam-webster.com/

Odello, T., Hill, E., & Gomez, E. (2008). JUPTRR Challenge Course Effectiveness: The Impact on Leadership Efficacy and Work Efficacy Among College Students. *Journal of Unconventional Parks, Tourism & Recreation Research*, *1*(1), 18–22.

Petrella, J., & Jung, A. (2008). Undergraduate Research: Importance, Benefits, and Challenges. *International Journal of Exercise Science*, *1*(3), 91–95.

Thor, P. (2014). *The Effects of Ropes Courses as an Intervention for at-risk youth: A Meta-Analysis* [Unpublished master's thesis, California State University, Stanislaus].

Vivekananda-Schmidt, P., & Sandars, J. (2018). Belongingness and its implications for undergraduate health professions education: A scoping review. *Faculty of Health and Social Care*. Retrieved from http://orcid.org/0000-0003-3930-387X

Zhou, K. (2017). Non-cognitive Skills: Potential for Global Measurement. *ERIC Journal*, *EJ1159536*.