Building Climate Community in Liberal Arts Education Spaces

John Martin Tomlinson

A Note On Language

Several key choices were made surrounding the language used in this text, the primary of which refers to what is commonly referred to as climate change or global warming as the climate crisis. The reasoning for this comes from an article published in the January 2020 issue of the journal *BioScience* which featured 11,258 scientist signatories who stated, "that the planet Earth is facing a climate emergency."[1] This phrasing portrays the real threat and danger posed by the climate crisis. The term climate crisis may also help to invoke a more personal and dramatic response, while the term climate change often seems more distant and abstract. On a less drastic note, this text uses the term "higher education community." This term is meant to encompass the wide range of people who are involved in the field of higher education, including but not limited to students, staff, faculty, administration, and alumni.

Introduction

We are existing at a tipping point for human society and all living systems on Earth. As the most pressing and existential threat facing society as a whole, the climate crisis is a direct threat to our way of life for society as a whole. If we are to effectively combat the climate crisis, higher education institutions must leverage their resources in effective and efficient ways. An important part of doing this is building an engaged community that seeks to actively address the climate crisis. However, this is more easily said than done. Issues such as financial investment in sustainable ventures and divestment from fossil fuels come with their own challenges. There is as of now no roadmap for creating an engaged climate community.

This paper seeks to remedy that disjunction by examining models of change and the praxis of climate change community creation at Swarthmore college. The goal of this white

---

[1] William J Ripple et al., "World Scientists' Warning of a Climate Emergency," *BioScience* 70, no. 1 (November 5, 2019), https://doi.org/10.1093/biosci/biz088.

paper is to provide a framework for establishing a climate community through the "Theory of Change" model. As well as to provide frameworks that could work in the future to establish effective praxis surrounding climate crisis community building. The first part of this paper will establish what is meant by "climate crisis community" or a climate crisis engaged community, as well as what a theory of change is. Additionally, I will establish the need for community engagement within the climate crisis on the campus of liberal arts colleges. Next, I will provide a case study of the change theory of climate crisis community engagement events at Swarthmore College. Finally, I will provide methods of fostering effective models of change as well as describe barriers to change in liberal arts education.

Responsibility of Higher Education

Second Nature, a non-profit organization dedicated to accelerating climate action in higher education[2],[3], stated in their report, published in part by American College and University Presidents' Climate Commitment, on *Higher Education's Role in Adapting to a Changing Climate,* that "Have a critical role to play in preparing society to adapt to the impacts of climate disruption by providing research and education around adaptation strategies and science."[4] This process can be quickened by creating a climate crisis community on the campus of higher education institutions. Swarthmore College has a unique positionality in that it fosters a high level of campus engagement with students, staff, faculty and other community members. By effectively utilizing the campus community, Swarthmore College has the opportunity to be a model of climate crisis action and community.

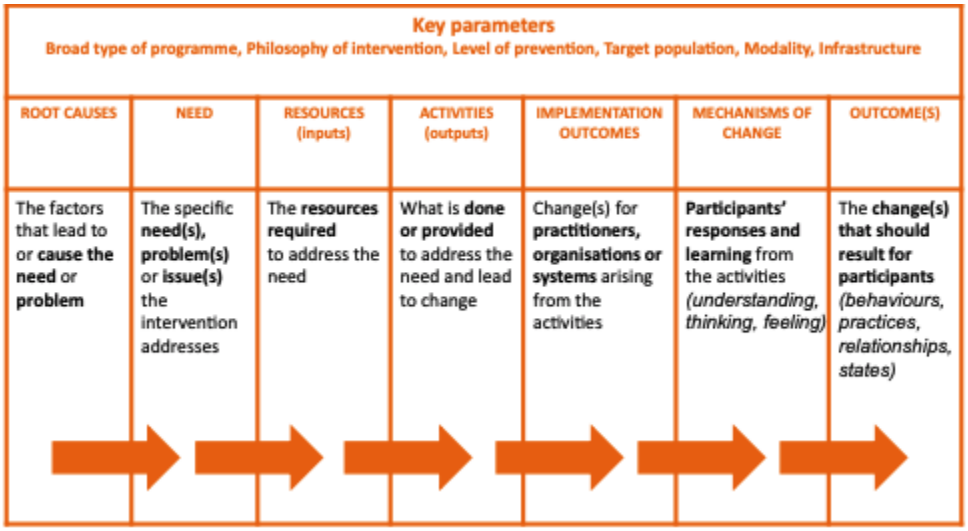
---

[2] Second Nature, "Mission, Vision & History," Second Nature, accessed April 26, 2021, https://secondnature.org/mission/.
[3] Swarthmore College is a member of this organization
[4] Georges Dyer and Jennifer Andrews, "Higher Education's Role in Adapting to a Changing Climate" (Boston, MA: American College & University Presidents' Climate Commitment, November 3, 2011).

Higher education institutions maintain a number of resources that can be used to effectively combat the climate crisis. These include highly knowledgeable faculty members, resources for research, opportunities for more sustainable facilities management, and often substantial purchasing power in the form of endowments and investments. What is fundamental to efficient utilization of these unique and powerful resources is building a community engaged with and ready to act on the myriad of issues presented by the climate crisis.

Theory of Change

Initiatives or programs with ambitious goals, such as alleviating the impacts of the climate crisis, require a great deal of effective planning, evaluation, and execution.[5] A theory of change allows an organization or individual to easily resolve the issues that come from evaluators' inability to show causal connections between program activities and program outcomes.[6] The development of a complete and comprehensive theory of change allows for more holistic strategic planning, organizational direction, and priority assessment.[7] It is important to note that while the term theory has a specific meaning in the social sciences, in STEM and humanities fields the term "theory" has a different meaning. The definition of "theory of change" in this context is "'a



[5] Wendy M. DuBow and Elizabeth Litzler, "The Development and Use of a Theory of Change to Align Programs and Evaluation in a Complex, National Initiative," *American Journal of Evaluation* 40, no. 2 (July 13, 2018): 231–48, https://doi.org/10.1177/1098214018778132. 232
[6] *Ibid.*
[7] *Ibid.* 231

blueprint for achieving large-scale, long-term goals. It identifies the preconditions, pathways, and interventions necessary for an initiative's success."[8]

Visualizing a theory of change can be helpful in providing a more holistic understanding of the concept. This chart provides an outline of what should be included in a theory of change model.

Within the context of this paper, theories of changes are used as a tool to evaluate the effectiveness of various climate crisis community related interventions.

There is no one definition of "theory of change."[9] However, "the board consensus on "planning process which articulates how change can be achieved"[10] This is done by determining or defining a long term goal.[11] Then,

Climate Crisis Community

"Climate crisis community" is a rarely heard phrase. However, the idea of working to foster a community engaged with the climate crisis is not a new one. In order to respond to such existential, widespread, and temporally complex issues as the climate crisis, it is essential to build engagement within one's community. Higher education institutions can serve as fertile areas for the development of communities engaged with the climate crisis. Higher education can allow for frameworks that all one can earnestly enter into exercises of "sociological

---

[8] Wendy M. DuBow and Elizabeth Litzler, "The Development and Use of a Theory of Change to Align Programs and Evaluation in a Complex, National Initiative," *American Journal of Evaluation* 40, no. 2 (July 13, 2018): 231–48, https://doi.org/10.1177/1098214018778132. 233

[9] Patrick Pringle and Adelle Thomas, "Climate Adaptation and Theory of Change: Making It Work for You," *Climate Analytics* (Berlin, Germany: Climate Analytics, September 7, 2019), https://climateanalytics.org/media/theory_of_change_briefing_note.pdf. 4

[10] Ibid.

[11] Ibid.

imagination."[12] That is to say, higher education institutions are in a unique position to foster community easier and more effectively than other local organizations.

How do you define climate crisis community? Within this paper, a "climate crisis community" is defined as a community which has completed or is in the process of completing a transformational change towards a community centered around critically engaging with the climate crisis and preventing, mitigating, or repairing its impacts. Put another way, a climate crisis community is a community that is fully engaged with the climate crisis.

Theory of change and Climate Community

For the effective creation and implementation of climate crisis action projects, it is important to consider the pragmatic implications of projects. The climate crisis requires effective action and it can be difficult to act effectively when there is no clear system of charting the end goals and processes that will lead to radical or even small-scale change. This is where the theory of change comes into play. Developing a strong theory of change and evaluating past and present programs helps to motivate more successful climate crisis action. Climate crisis action in the higher education community should make a concerted effort to work toward the betterment of society. Through the creation of more effective systems of higher education climate crisis community building they can work towards a more just and equitable future.

In order to demonstrate how an effective theory of change might function, I have created the following section on the "Climate Essentials" course that was developed and delivered at Swarthmore College. This is done in order to illuminate how the theory of change can be used for climate community programming in a higher education setting. At first glance the model can

---

[12] Liam Phelan and Matt Lumb, "Higher Education for Times of Climate Crisis – Critical Awareness, Purpose and Community," *International Studies in Sociology of Education* 30, no. 1–2 (January 24, 2021): 173–90, https://doi.org/10.1080/09620214.2020.1854828. 182

often seem complex, abstract, and even overwhelming. The following example is provided in order to simplify understanding of the theory of change and its application.

A Case Study: "Climate Essentials" Course at Swarthmore College

The Swarthmore College "Climate Essentials" short-course was created in 2019 by President's Sustainability Research Fellows Declan Murphy and Atticus Maloney, with the goal of addressing:

> "The climate collapse, its implications on social justice and human survival, and appropriate individual and collective responses. In small, intergenerational groups that support and encourage honest reflection, we hope to build a community with the courage to envision radical societal transformation and take meaningful action to address the climate crisis"[13]

Conceived as a "pilot" offering, his course was conducted with great success in the academic year 2019-20.

"Climate Essentials" was subsequently revised in the following year by President's Sustainability Research Fellows Maya Tipton, John "Martin" Tomlinson[14] and senior fellow Declan Murphy with additional support provided by numerous staff members at the Swarthmore College Office of Sustainability. The purpose of the course was revised to foreground "emphasizing a holistic approach to understanding the climate crisis, highlighting environmental justice, systemic causes, and equitable paths forward. The sessions will feature guest speakers, activities, and discussions, centered around critical topics."[15] This course has thus far appeared to

---

[13] Declan Murphy and Atticus Maloney, "Climate Essentials Syllabus" (Swarthmore College Office of Sustainability, January 9, 2020), https://docs.google.com/document/d/138AvsozYbxI7ZkrwjhrGOQD_BnWZCzTI5SpaRSzdPiY/edit?usp=sharing. 1

[14] Author of this text.

[15] John Martin Tomlinson, Maya Tipton, and Declan Murphy, "Climate Essentials – a President's Sustainability Research Fellowship Project," Climate Essentials (Swarthmore College, 2021), https://climateessentials.swarthmore.edu/.

provide an effective vehicle for creating a community engaged surrounding the climate crisis with student, staff and faculty involved in the Swarthmore community. In order to best illuminate what a theory of change intended to create a climate crisis community in a higher education setting is, I have chosen this example. The reason for this choice is two-fold. Firstl, I believe this project provides a clear example of an office of sustainability at a higher education institution attempting to foster a climate community project. Secondl, it is a project that I am intimately familiar with.

The rest of this section is divided into sections based on Figure 1. Each section of Figure. 1 is explored below with text from the Climate Community President's Sustainability Research Fellowship Climate Community (PSRF) project documents as well as supplemental materials written by myself to more fully flesh out each of the sections.

Root Causes

"Concern about climate change is a major factor in students' and society's thoughts about and planning for the future. Public action on and understanding of climate change is out of touch with current realities of the world."[16]

Need

The Swarthmore community currently has a need for programming, engaged scholarship, and course work that engages directly with the problems presented by the climate crisis. Additionally this programming should engage directly with the systemic, institutional, and environmental justice issues.[17]

---

[16] Kyle Richmond-Crosset et al., "PSRF 20-21. Climate Community Project Concept Document," (Swarthmore College: Office of Sustainability, September 23, 2020), https://docs.google.com/document/d/1CJyTjZ59CgATy6Q-T6iEje80c2bhefDuB4SUWvPl7gg/edit. 1

[17] John Martin Tomlinson, Maya Tipton, and Declan Murphy, "Climate Essentials Outline" (Swarthmore College: Office of Sustainability, January 20, 2021). 1

This project should also work to "develop techniques to support the Swarthmore campus community to reconcile this disjuncture, [disjunctures with the realities and perceptions of the climate crisis] to allow information flows about climate change, and to support people to be a part of pathways to solutions."[18]

Resources (Inputs)

Office Of Sustainability Staff

- President's Sustainability Research Fellows
- Green Advisors
- Project Board

Information

- Materials from last year's Climate Essentials course
- Summer research materials on climate community
- Knowledge of staff, faculty, and students

Activities (Outputs)

- Short-course on the climate crisis consisting of six sessions and featuring renowned speakers, small group discussion and space for meaningful engagement with the climate crisis.

[18] Kyle Richmond-Crosset et al., "PSRF 20-21. Climate Community Project Concept Document," (Swarthmore College: Office of Sustainability, September 23, 2020), https://docs.google.com/document/d/1CJyTjZ59CgATy6Q-T6iEje80c2bhefDuB4SUWvPl7gg/ed1.

Outcome(s)

"The Climate Essentials course will create an opportunity for community members to think critically about the climate crisis, with the goal of inspiring paradigm shifts and cultivating a shared purpose around this issue."[19]

This example is intended to demonstrate how the theory of change can be applied to creating a climate community in a higher education setting. The application of this model allowed us to stay focused on creating engaging programming and address our more abstract and complex goals.

Creation of Effective Climate Community Programs

Use of the theory of change allows for the effective implementation, creation, and evaluation of climate crisis programming and engagement-focused praxises. Through the use of these processes, PSRFs can answer the question "how do I make change happen?"[20] Answering this question as opposed to "how do I make this happen?"[21] The theory of change allows one to develop a strategy for implementation that addresses essential high-level, short-term, and oftentimes abstract-seeming outcomes in a pragmatic way. Theory of change can be a valuable tool for monitoring and evaluating PSRF programming as well as for tracking long term and making choices that will lead to a more sustainable and just future while building an engaged climate crisis community.

Factors to Foster Climate Community in Liberal Arts Institutions

---

[19] Maya Tipton and John Martin Tomlinson, "Maya/Martin PSRF 19-20 Output Description Template (and GANTT) - Climate Community" (Swarthmore College: Office of Sustainability, October 26, 2020).

[20] Patrick Pringle and Adelle Thomas, "Climate Adaptation and Theory of Change: Making It Work for You," *Climate Analytics* (Berlin, Germany: Climate Analytics, September 7, 2019), https://climateanalytics.org/media/theory_of_change_briefing_note.pdf. 2

[21] Ibid.

Fostering a climate community is a difficult task as it requires the utilization of a large toolkit of social, cultural, interpersonal, and communication skills. This section will first address barriers to climate actions before going on to address methods of overcoming those barriers and create an effective and engaged climate community.

Firstly, it is essential that community members understand the reality of the climate crisis. While many understand the scientific reality of the climate crisis they do not understand the impact that it will have on their communities or on themselves as individuals. In order, to effectively educate those in your community about the climate crisis a helpful tool may be the Gateway Belief Model (GBM). The GBM was developed by Sander van der Linden, Anthony Leiserowitz, and Edward Maibach. It states that "the degree to which people perceive science as certain acts as an important heuristic that informs their personal views."[22] Put another way, Scientific consensus leads to change in the publics' perception of a given issue, be that the climate crisis or gun control. Understanding this model allows us to comprehend how perceived scientific consensus shapes perception. As the perception of the scientific community's consensus shifts, so does public perception. The question then how does the GBM play into creating a climate community at a liberal arts institution?

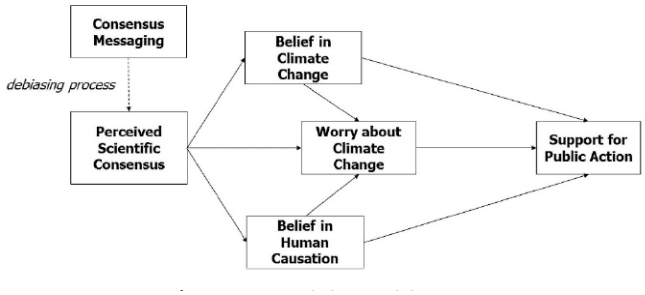


Fig. 2 Gateway Belief Model[23]

[22] Sander van der Linden, Anthony Leiserowitz, and Edward Maibach, "The Gateway Belief Model: A Large-Scale Replication," *Journal of Environmental Psychology* , no. 62 (April 2019): 49–58, https://doi.org/10.1016/j.jenvp.2019.01.009. 1

[23] "The Gateway Belief Model: A Large-Scale Replication," 2

One key factor in building a community around the climate crisis is creating a shared understanding of its impacts. Understanding the GBM allows one insight into how the public understand issues such as the climate crisis.

Another key aspect of building a climate community is fostering action and engagement with the climate crisis. It may be particularly difficult for those already involved with the sustainability movement to understand the barriers to climate action that exist for many people. Psychologist Robert Gifford and others have done a substantial amount of research in order to identify the factors that contribute to an individual's inability to act on the climate crisis. He terms these barriers "Dragons of Inaction."[24] The Dragons of Inaction categories are as follows: limited cognition, ideologies, sunk cost, ignorance, discredence, perceived risks, and limited behavior.[25] Limited cognition is the simple fact that the climate crisis is such a large and existential issue that human brains may not be able to fully comprehend it. Additionally, human thinking is much less rational than previously thought.[26] These combined factors may lead to an inability to fully rationalize and act on the climate crisis. Ideologies may also be in conflict with acting on climate crises be those religious or technosalvationist. The sunk cost action barrier is when individuals are unwilling to adjust their behavior due to sustainable investments of time and resources.[27] Inaction due to ignorance is when individuals don't take action due to their own

---

[24] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," *American Psychologist* 66, no. 4 (2011): 290–302, https://doi.org/10.1037/a0023566. 290

[25] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," 292

[26] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," 291

[27] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," 294

lack of knowledge. Discredence is "when individuals hold the views of others in a negative light, they are unlikely to take direction from those others."[28] Perceived risk is when individuals fear risks associated with changing their behavior to be more environmentally friendly. Finally, limited behavior is when individuals engage in minimal actions to decrease carbon emissions and are therefore less willing to engage in other larger actions as they already feel that they are doing their part.[29]

There are a number of psychological barriers that stand in the way of individual action and the forming of a climate community. In order to overcome these barriers it is necessary to overcome these barriers. There are a number of ways in which liberal arts institutions can seek to directly overcome these barriers through framing. As Gifford noted at the societal level it may be necessary to wrestle control away the routines of daily life that are predetermined by capitalistic society.[30] Liberal arts institutions provide a fertile ground for creating community spaces and programming that subverts the traditional narratives and sociocultural structures that have long enabled climate change.

The most effective way of enacting this guide of change is to seriously consider how you use the messaging you are using to educate and engage campus community members with the climate crisis. Communication is key to creating community. You can enhance your communication through the use of frames or framing. In its simplest form "framing simply

---

[28] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," 295

[29] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," 296

[30] Robert Gifford, "The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation.," 298

means using language to convey a certain idea in a particular way or in a certain light."[31] These frames should be localized, appeal to a shared value, focus on current impacts, and highlight solutions.[32] Framing the climate crisis can often be difficult to do effectively as it is an all encompassing and seemingly existential issue. This can be rectified by focusing on the shared values and individual experiences of those at your institution as well as highlighting solutions and actionable items. Through the development of frames that are relevant to communities cna be a crucial part of the transition to a more just and sustainable world. The use of effective framing in combination with an effective theory of change can help build a liberal arts community that is fully engaged with the climate crisis and its impacts. Framing should be heavily considered when creating your theory of change. Consider by changing the framing of the climate crisis it is possible to engage large swaths of your campus's population.

Conclusion

The climate crisis is a complex problem that requires complex solutions. If we are to combat the climate crisis effectively, higher education institutions must leverage their resources effectively and efficiently. The creation of a community meaningfully engaged with the climate crisis allows for the creation of this kind of leverage. The creation of a climate community project can lead to creating practical solutions and the discovering leverage points for actions within your higher education sphere and beyond. Overall, this paper has established the groundwork of what is required to establish a climate crisis community within a higher education context through the

---

[31] Adam Corner, Chris Shaw, and Jamie Clark, "Principles for Effective Communication and Public Engagement on Climate Change," *IPCC* (Oxford: Climate Outreach, January 2018), 8

[32] Frameworks Institute, "Welcome," Website Video, *Frameworks Institute*, 2017, http://frameworks.litmos.com/course/150482/module/735281?moduletoken=MwC-~PqVNGuscgOIs7FQGvnKJb-vEBAAtm7a9esw4S9YqwpizplC18MhcL9M44Ly&LPId=0.

theory of change as well as understanding barriers to action and methods of communicating the reality of the climate crisis.

Bibliography

DuBow, Wendy M., and Elizabeth Litzler. “The Development and Use of a Theory of Change to Align Programs and Evaluation in a Complex, National Initiative.” American Journal of Evaluation 40, no. 2 (July 13, 2018): 231–48. https://doi.org/10.1177/1098214018778132.Georges Dyer, and Jennifer Andrews. “Higher Education’s Role in Adapting to a Changing Climate.” Boston, MA: American College & University Presidents’ Climate Commitment, November 3, 2011.Murphy, Declan, and Atticus Maloney. “Climate Essentials Syllabus.” Swarthmore College Office of Sustainability, January 9, 2020. https://docs.google.com/document/d/138AvsozYbxI7ZkrwjhrGOQD_BnWZCzTI5SpaRSzdPiY/edit?usp=sharing.Phelan, Liam, and Matt Lumb. “Higher Education for Times of Climate Crisis – Critical Awareness, Purpose and Community.” International Studies in Sociology of Education 30, no. 1–2 (January 24, 2021): 173–90. https://doi.org/10.1080/09620214.2020.1854828.Pringle, Patrick, and Adelle Thomas. “Climate Adaptation and Theory of Change: Making It Work for You.” Climate Analytics. Berlin, Germany: Climate Analytics, September 7, 2019. https://climateanalytics.org/media/theory_of_change_briefing_note.pdf.Richmond-Crosset, Kyle, Terrence Xiao, Carr Everbach, Martin Tomlinson, Declan Murphy, Brenna Leary, and Joy Charlton. “PSRF 20-21. Climate Community Project Concept Document.” . Swarthmore College: Office of Sustainability, September 23, 2020. https://docs.google.com/document/d/1CJyTjZ59CgATy6Q-T6iEje80c2bhefDuB4SUWvPl7gg/edit.Ripple, William J, Christopher Wolf, Thomas M Newsome, Phoebe Barnard, and William R

Moomaw. “World Scientists’ Warning of a Climate Emergency.” BioScience 70, no. 1 (November 5, 2019). https://doi.org/10.1093/biosci/biz088.Second Nature. “Mission, Vision & History.” Second Nature. Accessed April 26, 2021. https://secondnature.org/mission/.Tipton, Maya, and John Martin Tomlinson. “Maya/Martin PSRF 19-20 Output Description Template (and GANTT) - Climate Community.” Swarthmore College: Office of Sustainability, October 26, 2020.Tomlinson, John Martin, Maya Tipton, and Declan Murphy. “Climate Essentials – a President’s Sustainability Research Fellowship Project.” Climate Essentials. Swarthmore College, 2021. https://climateessentials.swarthmore.edu/.———. “Climate Essentials Outline.” Swarthmore College: Office of Sustainability, January 20, 2021.