


Fall 2017

The Role of Young Environmental Activists in Iceland and Furthering Youth Engagement with Environmental Issues

Story Schwantes

SIT Study Abroad, storyjs@gmail.com

Follow this and additional works at: http://digitalcollections.sit.edu/isp_collection

 Part of the [Climate Commons](#), [Earth Sciences Commons](#), [Environmental Studies Commons](#), [European Languages and Societies Commons](#), [Human Ecology Commons](#), [Place and Environment Commons](#), [Social and Cultural Anthropology Commons](#), and the [Sustainability Commons](#)

Recommended Citation

Schwantes, Story, "The Role of Young Environmental Activists in Iceland and Furthering Youth Engagement with Environmental Issues" (2017). *Independent Study Project (ISP) Collection*. 2749.

http://digitalcollections.sit.edu/isp_collection/2749

This Unpublished Paper is brought to you for free and open access by the SIT Study Abroad at SIT Digital Collections. It has been accepted for inclusion in Independent Study Project (ISP) Collection by an authorized administrator of SIT Digital Collections. For more information, please contact digitalcollections@sit.edu.

**The Role of Young Environmental Activists in Iceland
And Furthering Youth Engagement with Environmental Issues**

Story Schwantes

SIT Study Abroad: Climate Change in the Arctic

Advisor: Jennifer Smith

Academic Director: Dan Govoni

November 24th, 2017

Table of Contents

Abstract.....	3
Acknowledgements.....	4
Introduction.....	4
Objectives.....	5
Justification.....	6
Definition of Environmentalism.....	6
Context.....	7
Literature Review.....	8
Methods.....	10
Ethics.....	12
Results.....	13
Discussion.....	16
Solutions – Getting more youth involved.....	19
Future Research.....	24
Conclusion.....	25
Appendix.....	28
Bibliography.....	29

Abstract

This paper looks at the role of youth environmental activism in Iceland and how these actors view their work in a country which has long held a reputation as one of the greenest in the world. Much of the credit for that distinction goes not to careful choices, sacrifice, or excellent stewardship but rather to its ideal geography providing massive geothermal energy which Iceland turns into electricity, a clean renewable source. So are there young environmental activists in Iceland, and if so what do they do? Short answer: yes, and they study and talk. The long answer is more complex. On a global scale, youth serve as necessary actors in the affairs of environmental issues, and Icelandic youth are no exception. Pulling from six interviews with youth identified as *environmentalists* by themselves and their peers, these key players were found to be engaged in multiple ways, considering themselves to hold an important and developing role in the country. This paper further looks at ways in which future generations of environmental activists can be encouraged to join the fight for planet Earth both in Iceland and internationally.

Acknowledgements

Thanks for life Mom and Dad! Another big thank you to Jen, my advisor for answering all of my questions about life, liberty, and the pursuit of happiness/social science research. And to Dan, who called us every Friday and let us all rant to him about how sad the world makes us feel sometimes. I'd also like to acknowledge Petúr from the Young Environmentalists for vast amounts of patience with all of my questions about their Facebook page and for letting me tag along to a presentation! A huge thank you to all of the interview participants who put up with my badgering and were so willing to talk and be passionate about their lives! Brauð & Co in Reykjavik gets another shout out for serving the craziest cinnamon rolls on the planet and also having a satellite location a 5-minute walk from my apartment. Final thank you goes to my house mates/brooooooos Sarah and Doodle who share my passion for the defunct social media platform Vine and 80s pop music.

Introduction

Our natural world keeps changing – and youth are vital in regard to that change. Considered a major stakeholder group by the United Nations, they are the ones who will most acutely experience the consequences of current actions or inaction when it comes to protecting the environment (Sustainabledevelopment.un.org, n.d.). They exhibit a profound sense of urgency about the planet and offer enormous creativity, both striving toward and already offering a myriad of solutions to our greatest environmental problems. They will one day run the world. And most of them still have hope. This kinetic power effectively catapults them, individually and collectively, from passive stakeholder to potential planet savior.

Where I am from in the United States (US), young people are conspicuously engaged in activism of all kinds: political, environmental, social, personal. The school that I attend has multiple clubs dedicated to doing activist work and everywhere one turns one encounters another eager young person looking to try to help their community. Students on campus have staged multiple peaceful protests in our city of approximately 500,000 people. They host political letter-writing campaigns and park clean-up days, work for local politicians and NGOs, and organize groups of students willing to drive others to the polls on election day. As a visitor to Iceland, a relatively small island nation and a place of truly stunning natural beauty with an environment hard to ignore, I wanted to learn about its youth environmental engagement and activism. I began

this process as a person inquiry, but soon realized it bore closer and more extensive scrutiny. The first young woman I spoke with (21 years old, studying for medical school exams) could not think of a single one of her friends or acquaintances who had done or was involved with any environmental activism or engagement. Obviously, this is just one person, but she communicated utter passivity with regard to the environment in a country which has been established to be highly vulnerable to the effects of climate change. As an environmental science major in college and a participant in SIT's Arctic Climate Change semester abroad program somewhat steeped in climate change issues, I first questioned how this level of dis-involvement was possible, but that soon turned to interest in who *was* out there in the youth community with the passion and drive to do this work in Iceland? I set out to find why young people in Iceland have this passion, how it manifests, and if they think the work they are doing is effective. In addition to looking at Icelandic youth activism, I wanted to investigate how to increase youth engagement in environmental issues, exploring what Icelandic students say they believe would be effective, and what the literature says about it. What role do Iceland's youth see themselves as playing in environmental activism within the country and globally and what are strategies for generating greater involvement?

Objectives

The objective of my research is to gain a deeper insight into how Reykjavik/Iceland's youth see themselves as actors in environmental work. I interviewed a selection of youth in Reykjavik who identify themselves as environmental activists/engaged youth, asking them to describe the work they do, if they feel effective in what they do, if they feel they are being heard by the community at-large and by policy makers, and what they think they can do to engage more of their fellow students in their quest for environmental justice in Iceland and around the globe. I also wanted to compile a set of suggestions for further engaging youth in environmental issues and politics through both responses of interviewees and a review of the literature on global research/studies done on youth engagement. This section of the paper aims to "take it home" in a sense, and give tangible proposals for how governments/NGOs can work to create the next generation of invested young people.

Justification

Iceland is an anomaly, an island nation that already relies almost exclusively on renewable energy to power the country. With a population under 350,000, Iceland has gotten itself into this unique situation through a combination of responsive governance and access to relatively immense geologic/natural renewable energy sources ("Quick Facts", 2017). Due to the small size of the country, Icelandic youth can quite uniquely more easily gain access to and even become close to government leaders. Because clean energy production is not a key issue in Iceland, its youth don't have to think about many of the environmental concerns that those in other developed countries have grown up with and frequently hear about. There is no existing study of Icelandic youth's engagement with their environment, and it is this writer's hope that this study will pave the way for other researchers to investigate the unique scenario Icelandic youth are in. Although we are looking at the youth of a nation's capital area, home to over 60% of the country's population (2016: Iceland pop. 334,000, Reykjavik area 216,940), it is still a relatively isolated group in a relatively isolated country which offers its youth relatively great access to its government decision makers ("Reykjavik Population", 2017). In this way, effective Icelandic youth environmental activism may serve as a model for how youth in smaller localities in the US and abroad may successfully deepen their engagement and impact. Since the US federal government has pulled out of the Paris Climate Agreement, local and state activism there now seems critical to the planet, and youth may be uniquely positioned to have an impact previously unforeseeable and ultimately of critical importance. As well, the youth of today are tomorrow's establishment, so the impacts of early engagement with these issues will, we hope, carry forward.

Definition of Environmentalism

While environmentalism/environmental activism is defined by the Free Online Dictionary as "advocacy for or work toward protecting the natural environment from destruction or pollution," there were variations and gradations of the term's understanding on the part of this paper's subjects/interviewees. In order to stay out of the way of these subjects, I decided not to dictate to participants a specific definition and instead allow interviewees to determine for themselves if they were an environmental activist, if their peers were, and what that consisted of ("Environmental activism", 2017).

Context

Much of the globe (with particular emphasis on more developed countries) has reached a point where children are no longer expected only to be seen and not heard. Perhaps because of the enormous stakes, many youth have adopted the role of political actors themselves, attempting to claim their right to what happens with our planet through a variety of methods. When looking at the issues that revolve around the environment, such as climate change and power generation, youth appear to be concerned. As much as 85% of American youth under age 30 consider themselves “environmentalists.” In an Australian survey of 970 youth ages 15-18, environmental issues were ranked as their number two concern, right after war/terrorism (McDougle, Greenspan, & Handy, 2011; Harris, Wyn, & Younes, 2010). These are great numbers, but unfortunately saying one cares is not what changes the world. Action is also required, and Iceland has active youth who are leveraging their power to move governmental entities and to effect change.

Iceland has for many years now been touted as one of the greenest countries in the world (Speer, 2012; “Iceland named greenest country in the world”, 2010). Yet, despite the fact that all of their electricity production comes from renewable, local, and quite clean sources, the country faces a number of serious environmental issues, both regional, and global in scope (“Publications | National Energy Authority of Iceland”, 2017). Globally climate change is already affecting Iceland, predominantly through glacial melt. This has implications for future energy production, water sources, agriculture, and tourism (Aðalgeirsdóttir, Jóhannesson, Björnsson, Pálsson, & Sigurðsson, 2006; Vargas, 2017). Tourism itself creates environmental issues, with the country’s existing infrastructure not equipped to handle the influx of visitors, resulting in new development pressures (“Environmental issues | Icelandic Tourist Board”, 2017). Other energy projects in the region, such as new hydroelectric plants, have also caused a commotion with Iceland’s population, especially with environmental proponents (Giudice, 2008).

The nordic island country has had its own environmentalist history, with its largest environmental NGO starting in 1969, where its predominant focus was on soil and vegetation conservation and has now shifted to protecting Iceland’s landscape (Landvernd.is, 2017). But one of Iceland’s first environmentalists (and a young one at that) was Sigridur Tomasdóttir, a young woman who helped stop foreign investors from damming the waterfall Gulfoss by threatening to throw herself off of it if they did and then advocating to make it a permanent

conservation site (Devine, 2013). Iceland's first direct activist network “Saving Iceland” launched in 2004 as a response to large amounts of heavy industry (read: aluminum smelting) moving into the country (Hill, 2011; Savingiceland.com, n.d.). One of the main conflicts that arose pitted the environmental toll of a hydroelectric plant in the eastern highlands against the idea that this power, going towards aluminum smelters who would create jobs and bring infrastructure to the area, would keep alive a part of Iceland that was dying off, losing their inhabitants to the draw of larger towns and the capital area (Giudice, 2008). Protests such as the throwing of green skyr (an Icelandic yogurt) and benefit concerts funding opposition to the dam featuring the likes of Björk took place (Nvdatabase.swarthmore.edu, n.d.). In the end the dam was built, but since then action on other environmental fronts in Iceland have taken place (Landvernd.is, 2017; Savingiceland.com, n.d.).

With regard to environmental issues, Iceland has been shown to have “high literacy and low concern” in comparison to much of Europe (Guerra, Schmidt, & Valente, 2016, p. 228). But this statement applies to the population as a whole. What about the young generation of Icelanders? People under age 24 currently make up 34% of Iceland’s population and are also demanding to have a say in the matter of what happens to their environment (“The World Factbook — Central Intelligence Agency”, 2017). According to several of my interview subjects, just one organized environmental group exists for the youth of Iceland, “Ungir Umhverfissinnar” (UU) or “Young Environmentalists.” But several active youth I interviewed said they are finding a way to engage on both larger and smaller scales. One example: interview subject Númi works on international cases of environmental injustice through Amnesty International but also says that he engages in environmental activism from the comfort of his own home, largely through careful personal choices which he encourages his peers to take up as well.

Literature Review

The literature within this field essentially all moves toward the same goal: finding out how to instill an activist mindset in future generations of youth. What comes before activism comes, and how can we make that a fact of life in future generations (Arnold, Cohen, & Warner, 2009; Chawla, 1999; Roser-Renouf, Maibach, Leiserowitz, & Zhao, 2014; McDougale et al., 2011)? What benefits that come from being an activist can be promoted (Klar & Kassir, 2009; Johnson, Johnson-Pynn, Pynn, 2007)? Looking at the hows and whys of those currently involved

in activism can provide the insights and knowledge necessary to involve more youth (McDoughle et al., 2011). Because a limited number of studies exist specifically related to youth environmentalism, I branched out to look more broadly at youth activism and the motivations behind general activism.

The first route that authors took aimed at finding out why current activists became activists. This included looking at Significant Life Experiences (SLEs), or pivotal life moments that a person who demonstrates environmental concern attributes to affecting who and how they've become (Chawla, 1999). In exploring SLEs, one can identify patterns of causation and potentially use those in future school curriculum, civic engagement, or parenting to instill a sense of the value of the environment in younger/future generations. Arnold, Cohen, and Warner (2009), in their study of 12 young environmental leaders, identified that in order to cultivate an environmentalist there are two key factors that need to appear in someone's youth: influential people and influential experiences. Influential people can include anyone from friends to parents to teachers, and influential experiences include time spent outdoors (both structured and unstructured), school-based learning, and groups/gatherings/conferences. The combination of the two, relationships with other passionate people and powerful experiences, were key to the development of a young environmental leader in Arnold and colleagues' study.

Chawla took her study in a slightly different direction, still looking at SLEs but in adults from the US and Norway (1999). She added another type of influential experience to her list, that of negative experiences, which take on two forms. The first is the destruction of a place that has meaning to a person, and the second is a fear of toxic threats or pollution. The negativity mentioned here is an important driver, as having negative outcome expectations for the environment has been shown through a multitude of studies to be relevant in initiating environmental activism (Roser-Renouf et al., 2014).

Some studies have come from the opposite direction and have taken the approach of asking, "What can activism do for you?" It is hard to get people inherently interested or active in something such as environmental activism without there being for the participant a vision of potential personal gain, so discerning and highlighting individual benefits of activism could be an important way to draw more people in. In a 2009 study Klar and Kassar looked at the relationship between participation in activism and well-being. They found that people who participate in conventional activism activities (where there is little to no threat of harm to one's

self, for example writing letters to political representatives) had a positive correlation with 6 of 8 measures of well-being. They also found those who scored higher on their activism scale were more likely to meet the criteria for “flourishing” in life.

Another study analyzed what youth gained from participation in an activist group in China. The group, a Roots & Shoots program (a service program started by Dr. Jane Goodall, with a focus on environmentalism, conservation, and humanitarianism), and its projects, had positive effects on the “cognitive competence, social competence, social connections, confidence, compassion, and social responsibility,” of members (“About Us | Roots & Shoots”, 2017; Johnson et al., 2007 p.368). These results suggest that those with a hankering for personal development would benefit from participating in environmental activism. This self-interested way of thinking about volunteer action is not uncommon. Another study looking specifically at a youth population found support for their hypothesis that young people volunteering for self-interested concerns invested more time in environmental organizations (McDougle et al., 2011). These young people were volunteering because of what they personally got out of the action, such as social connections. The study suggested that perhaps advertising the social, more egoist benefits of volunteering/participating in activism are a way to get youth more involved.

Other research has focused on youth’s perceptions of actions they can take, finding that most do not think of themselves as an important first line of defense in environmental protection (Wray-Lake et al., 2011). In another study, Harris and colleagues (2009) looked specifically at youth who are concerned about the environment but feel left out of the “system”, finding that the feelings of marginalization youth feel is a major factor preventing them from taking action. Youth are more likely to engage in their daily life through consumer choices, and Harris suggests that what is needed is a bridge between these everyday acts and formal politics.

Methods

As no research currently exists on Icelandic youth activism, environmental or otherwise, I decided to look more at what Icelandic youth are currently doing and how they view their efficacy rather than to focus strongly on what inspired them. Due to time and financial constraints, a large-scale survey was, unfortunately, out of the question, and I instead decided to do a small number of in-depth interviews. 6 people under age 30 were identified as actors in environmental activism/advocacy work in Reykjavik. A list of all participants and brief

descriptions of them can be found in Appendix A. Age 30 was picked as the cutoff to “youth” because I felt it gave room to find participants both in school and out of school, but it is otherwise arbitrary. As the United Nations says, “Youth is a more fluid category than a fixed age-group.” (Unesco.org, n.d.)

It was initially very difficult to find information about people/groups doing work in the area as there was very little advertising about them, and so once I had found Petur (the director of UU who had responded to a query I sent to the group’s Facebook page) and Númi (a connection made through academic director Dan), the other interviewees were found using the snowball method, where everyone was asked to suggest people who they see as environmentally active. The definition of who was considered environmentally active was left up to participants. I felt that trying to meet certain criteria in interview subjects could limit the number of people suggested, thus my sample size, and so merely asked interview subjects to refer other people *they* considered environmental activists.

Participants were informally interviewed about their perceptions of and reasons for advocacy work, with interviews lasting from 45 minutes to an hour and a half. A list of questions asked of all interviewees can be found at the end of this section, though interviews were open-ended and participants were allowed to talk about what they identified as important to them.

Initially I had intended to do participant observation work, where I follow youth in activities related to their work. I attended one event where Petúr and Erla, two interviewees, went into an environmental science class at an upper secondary school and spoke about why one should care about the environment and what their club UU was doing. The idea that this was feasible soon wore off, as the limited number of events happening while I was in Reykjavik were conducted in Icelandic and/or were events that a limited number of people could attend, and I did not want to take up the seat of an interested Icelandic youth.

As mentioned, one environmental activism/engagement group for young people was found in Reykjavik, Ungir Umhverfissinnar (UU). Other groups such as Gaia (the student group for the masters degree program in environment and natural resources and the University of Iceland) were looked into. I was informed that they were not advocacy groups, but social groups for students in these programs. Petúr had headed one of these groups (Floka, student group for the biology masters) and said that he merely coordinated events and was unaware of any other

youth groups in Iceland working on environmental issues, be they at upper secondary schools or universities. Númi was not aware of any groups either, including UU.

Interview results were compiled and looked at for overarching patterns: Why and how do young Icelanders engage in environmental activism and how do they view their work? I also gathered information from students about involving more young Icelanders in environmental issues. And I assembled an overview of tactics previous studies have shown to be effective.

Interview Questions:

- When and where did you grow up? Where did you go to school?
- What do you do currently (career, school, etc.)?
- Tell me about your environmental engagement.
- How do you define yourself? As an activist? Or something else?
- Why do you do this work? Who, or what, inspired you?
- What is the most important part of what you do?
- In what ways has your work has been effective? Or not.
- Do you feel your work/the work you're doing is taken seriously? By the government? By your peers? Explain.
- What barriers exist in Iceland for young environmentalists? How are they being dealt with?
- How should further engagement with environmental issues in Iceland be encouraged?

Ethics

All interview participants were asked to sign a waiver which included descriptions of the research and what their responses would be used for. It also detailed that participation in this research is voluntary and they could/can withdraw at any time. In addition, it asked for permission to record the interview, quote interviewees, and use participants' first names in my paper and presentation. Participants were given a chance to change anything on the waiver after the interview concluded. Everyone formally interviewed was over age 18, and all six formal interviewees signed the waiver. When I attended the presentation at the secondary school, everyone involved was aware of my presence and was fully informed regarding what I was doing. They were told they could ask any questions about my research. Anyone, be they an interview participant, SIT staff member or student, has access to any and all parts of my research.

Results

Interviews delivered both expected responses and a few surprising facts about how Icelandic youth perceived themselves. Those interviewed currently live in the Reykjavik area and grew up in the region with the exception of a few who lived in other countries for periods of time, but consider themselves Reykvíkingur. They all attended school for their undergraduate degrees in Reykjavik, all of which were in science and engineering fields. Of the participants who had completed undergraduate degrees (four of the six) they either had completed a masters degree, had dropped out of a masters degree program, or were planning to start a masters program. Participants were either currently focusing solely on school, between jobs, or worked for the environmental departments of Icelandic businesses. Overall, they were a group of accomplished and educated young people whose current activities showed their passion for the world around them.

All participants engaged in environmental activism in different ways, but followed common threads. Every participant at least briefly mentioned daily environmentally-based choices, including practicing vegetarianism, taking the bus instead of driving, or separating out recycling. Everyone felt differently about whether or not daily actions was considered environmental “activism.” Participant Númi felt that his personal life was actually where he was doing the most environmental activism. He addressed that some may not consider this activism, but he did “because you’re, like, really changing your lifestyle for the environment.”

After daily life activism, participants mentioned three main forms of involvement. The first was through the group UU, of which Erla, Petúr, and Sigurður were all a part. This group, which is currently working on expanding its reach as well as its member base, mainly works on two different projects: secondary school classroom visits (usually environmental/science classes) throughout Iceland where they discuss environmental science and policy nationally and internationally as well as share information about how students can get involved in Iceland. They also promote their group. UU’s other project is setting up subject-focused committees within the group that will eventually have their own set of goals. This is in the early stages of development and most of what the group does now is release comments on major construction projects, such as proposals for new hydropower sites.

The next way young people were involved was through clubs not specifically focused on environmental issues. Two interviewees, Númi and Brynhildur, were part of Amnesty

International Iceland, a group that focuses on human rights, educating members about cases of injustice around the world and encouraging them to get involved by talking to those around them and gathering signatures for related petitions. One case Númi mentioned had an environmental twist to it, a lawsuit against Shell Oil in the Niger Delta over broken oil pipelines in the area that were polluting important wetlands ("Shell: #makethefuture – clean up the Niger Delta!", 2015). Númi said he was very confident in Amnesty's ability to make a change internationally. He felt his group also had a degree of power domestically, as they had been able to meet with the Minister of Social Affairs and Equality to present a list of signatures on a petition insisting that Iceland take in more Syrian refugees, where the minister agreed with them, though it is unclear if this brought about actual policy change.

Finally, youth felt that they engaged in environmental activism through their jobs. Participant Jóhanna works for an energy and power company called Landsvirkjun in their environmental department¹ and Sigurður works for an engineering firm and conducts environmental assessments of products. Jóhanna took a very pragmatic view of her work, firmly believing that climate change must be dealt with in *partnership* with companies, and that she is and will be able to use her role within Landsvirkjun to make the biggest difference she can. Sigurður, on the other hand, is also a part of UU and is doing his activism work from two different angles: that of the concerned citizen, and that of the engineer whose work will hopefully influence policy decisions through scientific research and reason.

Another common theme among interviewees was trepidation in referring to oneself as an "activist." Only Númi immediately stated that he would consider himself an activist. Most others said that they would like to be able to, but were unsure if what they were doing actually was activism. Others expressed doubt at the word activist itself, saying that perhaps it was not the right word and invoked ideas counter to what they were attempting to do with their work.

How youth became involved or interested in doing environmental work varied from person to person, but common threads ran throughout. Four participants mentioned formative experiences that occurred in their childhood, two mentioned the influence of a family role model, and three mentioned some type negative experience. Jóhanna brought up how she was raised to love the mountains, and grew up ski racing, developing an appreciation for the natural beauty

¹ Any comments made about Landsvirkjun are Jóhanna's personal opinion and do not reflect the company's views.

around her. Everyone but Númi mentioned that they had had some sort of environmental education, formal or informal, that had changed or helped form the way they felt about the environment and that they believed spurred them to concern and action. Jóhanna mentioned reading a lot about the environment in her youth, and Sigurður, Erla, Brynhildur, and Petúr mentioned university courses that influenced them.

All participants also said that they felt heard by the Icelandic government, but this did not necessarily mean that they felt they were being taken seriously by them. Youth had been invited to important conferences and had been able to set up individual meetings with officials where they felt welcomed and listened to, but they still felt that much of what they were demanding was not being acted upon and that they were underestimated. In the words of Erla, the impression given was, “Oh, you’re so cute!” Erla mentioned the only story of feeling the government had actually *acted* upon youth’s requests, wherein UU collected signatures demanding Iceland’s goals be made more ambitious and have follow through. After presenting their list to officials, the government released a new set of goals, not as comprehensive as UU would have liked, but a definite improvement.

When asked if they felt they were taken seriously by friends and family, many of the answers received were chalked up to age. Other young people, for the most part, understood the efforts of their friends, while older generations of parents and grandparents were less likely to understand youth’s actions. For example, while Númi mentioned his grandmother not understanding his decision to be a vegetarian, Petúr talked about his male friends being initially confused by a project UU was working on which provide a menstrual cup to all young people in secondary school who needed one thereby creating less need for a manufactured good and less waste. His response to the discomfort his male friends felt in talking about the taboo subject of menstruation was simple: “Some topics [that Petúr works on] they’re a bit surprised, but then they will probably just get used to it and think ‘Oh, okay, that is a good thing.’” His point being that if potentially uncomfortable topics are made normal in conversation then they can be more effectively dealt with, and he believed that this was an easier thing to do among young people with minds that are perhaps more open.

Age was also mentioned as a barrier for young environmentalists in Iceland. The “age power structure” (Brynhildur’s words) that existed made it very difficult for youth to participate on the same level as older adults with long careers behind them, and also attached a stigma to

youth's daily activism efforts that belittled them (Númi). Other barriers included empty promises made by politicians and other leaders who interviewees reported rejected environmental issues as unimportant or largely ignored them. Another political barrier that was mentioned was youth's inability to get ahead in politics because of political leader voting that happens within a party, in which you must be a member of the party to participate in selecting lists of candidates. To deal with these, Númi suggested mandating voting and changing the way that in-party voting was done. Erla and Petúr had also devised a way to get their wants thoroughly heard in the government that involved first talking with almost everyone involved in a ministry about a project in order to gain support for it and only *then* approaching the head of the ministry. A wide array of other barriers were mentioned as well, including funding issues, ideas considered too radical by the general population, the fact that Iceland is an island nation (thereby seeming to be a more closed system) with a small population (thereby impacting economies of scale) in reference to recycling and trash collection, changes happening too slowly, and pessimistic views about what youth have the ability to accomplish.

Discussion

All participants clearly saw what they were doing as important, as paving the way for those who will follow, and as hopefully effecting change. Each participant came across as passionate about his or her work, and all were interested in discussing what they were engaged in. They were informed about their role as environmental activists (whether they self-identified as such or not) and were trying to do more in their efforts to call upon political and corporate leaders as well as their own peers to think about the future.

When comparing my results to other research, the emphasis participants put on education as the single most important influence on their involvement was surprising. In two different studies, school (not education) was briefly mentioned as an inspiration and was not considered as important as factors such as family, friends, organizations, or negative experiences (Chawla, 1999; Arnold et al., 2009). In Arnold's study, school as an influencer took on two different forms, one where students were leaders who worked toward improving the school outside of the classroom and one in which students felt stifled by the learning environment and saw their environmental efforts as a way to escape the classroom. Neither of these were mentioned by my participants. Passive classroom learning was not a significant influencer in these studies, but was

the main influencer identified by my participants. I can, unfortunately, only speculate as to why education was reported to be a main influence among the Icelandic youth I queried. Two potential reasons: four of my participants referenced university institutions as their influential contact with environmental issue awareness or education. Perhaps being older when first learning about problems such as climate change allowed them to more deeply understand the gravity of the situation and its global implications, as they would have had more developed pre-frontal cortexes and have been less self-centered than, say, a child (Steinbeis Bernhardt, & Singer, 2012). The second reason is mere chance: I could simply have stumbled via the snowball method onto a group of passionate scholars.

The trepidation which participants expressed in referring to themselves as activists was contrary to much of what the theory of identity says about activist behavior. According to this theory, identity has the ability to motivate action, meaning that “the stronger participants’ sense of themselves as environmental activists, the greater their intentions to engage in this behavior.” (Fielding, Bernhardt, & Singer, 2008; Stryker, 1968, 1980) My participants almost all expressed some form of caution in identifying themselves as activists, Petúr and Sigurður specifically saying, “I’m guessing activist would be one word to describe it... but I want to do everything properly,” and “I’m an environmental engineer... I’ve been participating in some kind of activism, but I try to approach the subject as scientifically and... calmly as possible,” respectively.

What they appeared to be avoiding wasn’t the energy of activism, or the work itself, the real substance of working toward a goal of change, but rather the word itself and the negative connotations that have come to be associated with it in Iceland. Sigurður touched on this when prompted as to why he would not outright call himself an activist, stating that for many in Iceland activism is associated with the polarizing topic of dams in the eastern highlands, but that he is aware that it is so much more. Petúr, when asked if he would consider participating in something such as a sit-in protest, an event activists in other parts of the world hold frequently, said he would prefer to work within the system so as to not alienate anyone. This showed a degree of consideration that I believe is more the norm in Iceland than in larger places because of Iceland’s small size. Further, in larger countries, gaining substantial access to political decision makers can be difficult if not nearly impossible, and so larger scale demonstrations can be seen as necessary in order to direct attention to an issue (Feinberg, Willer, & Kovacheff, 2017). This

did not seem to be the case among the young environmentalists I spoke with, as all of them spoke to having had success in communicating with government officials, be they the minister of the environment or the prime minister himself. Their identities as non-disruptive activists on a developed small island nation play a big role in how they go about their work.

When asked if they were taken seriously by the government, answers were nuanced. The general response was that youth were being heard, but that their suggestions were not necessarily being acted upon. Being taken seriously as a concerned citizen has long been a struggle amongst youth, and is a main reason why so many young people choose to not get involved in the first place, i.e. if they feel as if they can't make a difference, what's the point of trying? (Harris et al., 2010; Roser-Renouf et al., 2014) Yet the youth I interviewed have persevered, continued with their work and tried to get more people involved with it. They at least feel *heard*, and that may help explain why they persevere. Many young people don't get the chance to experience that, especially in the non-confrontational ways that many of my interviewees described (i.e. welcomed into the office of a politician rather than protesting outside it). This is something that other localities can learn from Iceland. Yes, the president of the United States may be inaccessible, but smaller-scale administrations, including municipal, county, district, and state governments, can and should encourage and welcome youth to speak their minds directly to officials.

When participants were asked about whether or not they felt heard by those around them, by family and friends, a dichotomy arose. As mentioned, multiple participants believed age was a defining factor in whether or not someone was going to take them seriously. This is unfortunate since youth often have better information about the environment than their elders due, due partly to proximity to educational resources and partly to having grown up in an age where the environment has been a pressing issue (United Nations., & Expert Group Meeting on Global Priorities for Youth, 2004). Further, as one participant speculated, it is the younger generations who will be around for more of the impacts of climate change. These three factors can help explain why environmentalism seems to be more actively important to younger people.

Iceland's youth are dealing with many of the same barriers to engagement and action as youth in other developed countries: politics, money, and age were the main barriers mentioned by students. The advantage Icelanders have comes from the special circumstances that they find themselves in, which many of my participants mentioned. Petúr, in talking about how he does

not participate in events such as sit-ins, in addition to not alienating anyone also said he does not feel would ever need to, realizing that he is able to say that because he lives in Iceland where there is relatively easy access to political leaders. Other factors include the geographically small size of the country, its homogenous Norse/Celtic ethnicity (94% of population), and its relatively youthful population with a median age of 36.9 (compared to the European Union with a median of 42.7, or the US with 37.9) ("The World Factbook — Central Intelligence Agency", 2017). Looking specifically at environmental factors, the country's location over the Mid-Atlantic Ridge and abundance of tectonic activity means Icelandic youth can completely eliminate working toward green electricity production, a major concern in other developed countries ("Geothermal Heat - Iceland On The Web", n.d.).

These advantages can also be viewed as a negative. A sense of complacency may exist in harmony with Iceland's use of 100% renewable electricity, with citizens believing that Iceland has already accomplished the ultimate goal and can now wait to do more until others catch up. One might consider this analogous to failing to teach gifted students until other students catch up, when studies have shown that accelerated students flounder in these circumstances, but thrive when they are moved a grade or grades ahead to begin more productively from where they are at (Smith, 2003). Iceland is ideally suited to serve as a global leader and beacon and thus needs to do the same, and move to the next grade. Prompting their country to do just this is an area youth can lead in, with their better information and broader sense of the future (United Nations., & Expert Group Meeting on Global Priorities for Youth, 2004).

Solutions – Getting more youth more involved

With this paper, I intend to make a finished study, one that starts with talking about how and why youth are environmentally engaged in Iceland, talks about what their role is, and then makes suggestions on how further engagement with environmental issues should be encouraged in Iceland and the globe. This section of the paper is vital because youth are the future, an untapped resource, and their own environmental concerns have been shown to be in decline during the first part of this century (Wray-Lake et al., 2010). The final question I asked interview subjects to speak on focused on how to further engage youth in environmental activism. Something I struggle with as a young person in school studying environmental science is the idea that research is usually not about developing creative solutions to problems that exist but finding

what the barriers in getting to those solutions are. This holds true for the problem of getting young people involved in environmental issues as well.

As previously mentioned, each interviewee emphasized the necessity of teaching environmental sciences/about climate change in the school setting, specifically in regard to recruiting more young people to the environmental cause. None seemed to feel that there was enough going on in primary and secondary schools, and most mentioned that their environmental learning had happened in university classes or on their own time.

“Education towards sustainability” is one of the six pillars of education that schools in Iceland are directed to deliver in compulsory schooling, focusing not just on environmental education, but socio-political education as well (*The Icelandic national curriculum guide for compulsory school : general section*, 2012). Yet Icelandic education scholars have failed to find much direct implementation of sustainability education in analyses of curriculum (Borgþórsdóttir et al., 2014, p. 161; Jóhannesson et al., 2011). Evidently my participants have had first-hand experience with this. When Brynhildur was prompted to talk about what her environmental education looked like during compulsory schooling, she mentioned life science classes that were not really about the environment, and said “[environmental curriculum] should be... organized better.” Iceland is clearly still working toward sustainability in schools, for instance through the eco-schools project organized by the largest environmental NGO in the country, Landvernd. In this program, which was started in Iceland in 2001, schools agree to become “eco-schools” and form an environmental committee that assists the school in working toward an Eco-Code based around various ecological goals (“Eco-Schools”, 2013). A large percentage of schools around the country participate in the program, and its stated goal is to reshape student’s behaviors – one of many changes that will be important in the coming years.

Environmental education is a budding field, and researchers all over the world are making suggestions on how to use it as a tool to involve an increasing number of people. The first thing that needs to happen is improved efficacy. Environmental education is not a new concept, but its efficacy over the years in creating passionate youth who care about the environment has been questionable. The simultaneous increase of clearly opposing social forces, that of the multitude of people in developed countries who consider themselves environmentalists and, conversely, the rise of consumer culture highlight this. It has been suggested that perhaps this is because environmental education is not creating enough soul-

searching, is not forcing its learners to challenge themselves and their socially ingrained beliefs (United Nations., & Expert Group Meeting on Global Priorities for Youth, 2004). Beliefs are not translating into actions or changes of practice or habit. What may be required is an educational platform that utilizes local traditional knowledge, and teaches students how to think about time, and not just their own time (Thomashow, 2001). Students would learn to critique the consumerist and individualistic worlds that they have been brought up in and cultivate a mindset that places them at the heart of a community of people who have lived and will for perhaps centuries live in a particular place. Combine this critical thinking with more abundant contact with nature, and Iceland as well as the rest of the world could see a dramatic change in the way humans care for their planet.

Another aspect of change to the education system that arises in the literature en masse is teaching youth to move against corporations. This means teaching them to withstand the pressures of advertising by drawing links between a product and its consequences for the environment, by no means an easy task (United Nations., & Expert Group Meeting on Global Priorities for Youth, 2004). Advertising promotes consumer culture and unsustainable living practices, and even the best of us sometimes get drawn in by greenwashing (Yeld, 1993). Youth also must learn effective corporate boycotting strategies, as a US survey found them to be one of the most effective tools for holding corporations accountable (Friedman, 1991).

Other studies, such as one by Michael Finger, have found that environmental education is actually relatively ineffective at engaging people in action (1994). Looking at two different surveys and over 1500 Swiss respondents, Finger found that environmental knowledge actually produces very few environmental behaviors, and is mostly useful as a way to cope with environmental fears or anxieties. What he found was that experiences within the environment were the most influential on proclivity to engage, a factor many other studies have also found relevant as discussed above (Arnold et al., 2009; Chawla, 1999). Despite being contrary to much of what my interviewees suggested, and what much literature on the subject says, Finger's study can be used in tandem with others promoting environmental education, emphasizing the fact that education is necessary but it is not the ultimate way that people gain interest and that to experience nature is also vital.

On a similar note, study participant Jóhanna talked about getting people traveling so they can come to see and appreciate the world, thus caring more about it and becoming more likely to

participate in action to protect it. This suggestion is related to the concept of place attachment – lack of which has been identified as a main psychological barrier to action on climate change (Swim et al., 2009). People are more likely to care about places that they feel attached to than those they do not, which results in climate change’s effects on other parts of the world seeming less momentous. For example, Icelanders who have never been to Florida or the Caribbean may not care about the hurricanes that have and will increasingly continue to devastate the Gulf of Mexico and Caribbean Sea due to climate change (Knutson, 2010; Pielke Jr, 2005; Kluger, 2017).

Education was not the only involvement tactic on my interviewees’ minds, however. Númi had a simple idea which consisted of simply talking to those around you. Encouraging discussion about environmental issues has long been said to be one of the most effective forms of increasing engagement, with studies having shown that acquaintances are one of the most influential sources of information (Roser-Renouf et al., 2014). Another particularly interesting response from Petúr that was that his goal in working for UU was to first make engagement accessible to youth and then to make it *normal*, so that it becomes a fact of life for most people. This is an enormous goal, but one that is truly admirable and has potential as an extremely effective strategy.

This paper will mention two more important ways to get young people on an activist road. The first is a long-term effort on an individual scale: raise our children differently. Specifically, raise them with a value system that encourages them to care deeply about their fellow humans and the world around them. Parents were one of the SLEs that was prevalent in all of Arnold’s subjects, acting as supporters and role models, and from my study Erla and Jóhanna mentioned a parent or grandparent. Guardians also have the capacity to instigate experiences in the environment that have been proven to be powerful a determinant in a youth’s decision to act. Psychological studies have suggested that the desire to protect our environment is directly related to how connected to and a part of the natural world we feel (Schultz, 2002). With parents’ help, getting kids outdoors can foster this connectedness or sense of oneself as a part of nature, thereby growing young people’s concern for the environment and its inhabitants.

Finally, I suggest the government be made more accessible to youth, facilitating routes to government policy and decision makers for youth to make it easier for them to become involved in the system and to be heard. According to Brady there are three main classes of political

participation predictors: resources (how much time/money/skills you have available to contribute), issue engagement (involvement and its perceived effectiveness), and “social proximity to activist networks” (Brady et al., 1995; Roser-Renouf et al., 2014, p. 166).

Addressing each of these categories in the context of youth positions has the potential to lead to more engagement. In the resources department, much can be done. Youth can be encouraged to apply for grants that exist or are created to support them in political efforts, and (should all of the previous suggestions be adopted) the education system will be one that provides students with the knowledge they need to successfully navigate the political system and become resources and advocates for environmental issues they are passionate about. Not having enough money and having difficulty finding grants was what Petúr said was the *only* barrier that existed for UU. If they had the funding they needed to keep working, he believed that they could accomplish anything. Perceived effectiveness is mentioned throughout the applicable literature as a huge roadblock to participation. The students I interviewed seemed to feel effective, attributable in great part to having been able to meet with government officials. Making regular, personal contact with government officials available for young people is one way that Iceland can serve as a model for the rest of the world. Getting better at it is something all might do.

Social proximity to networks is trickier. If one chooses not to keep company with budding environmentalists, how do they learn about activism networks? The existence of these networks need to become more youth-oriented as well, making online presences larger and becoming a physical presence in schools through presentations (such as UU is doing). As a final point on political engagement, voting should be mandatory in countries with democratic political systems, as another push for youth to engage. Governments should consider the opinion of *all* of its stakeholder citizens.

Of course there is no foolproof way to get people interested and then involved. As many scholars agree on, instilling knowledge in someone is not enough to bring them to action, and, unfortunately, neither is even a situation as strong as having an environmentally based value system (Chawla, 1998; United Nations., & Expert Group Meeting on Global Priorities for Youth, 2004). But these points do not mean that the world should stop trying to get more people involved. Quite the contrary, we need to educate and encourage as many young people as possible with the hope that they will inspire each other, create their own activism networks as

they have done in Iceland, and continue the difficult but important work of protecting their futures, as well as the futures of those who will come after them.

Future Research

This paper outlines the role that youth in Iceland have undertaken within the field of environmental work. Being the first paper to investigate young environmentalists in Iceland, it paves the way for future studies to be done that would take a closer look at certain aspects of how Icelandic youth are able to work toward conservation goals. Had I more time, experience, and Icelandic language skills, I would have gone to more events put on by the youth that I met and the groups they were a part of (though, as mentioned, groups like UU conduct very few in-person meetings at this point in time). I also would liked to have narrowed my scope, though I felt I had to keep so broad because of the small amount of information about Iceland's youth and their relationship with the natural environment.

I consider an interesting subsequent study would look at the ways in which young environmentalists in Iceland go about inciting action, along with its perceived and/or measured effectiveness, and compare it to other countries' youth actions in an attempt to determine which efforts are the most effective in a variety of political, social, and economic situations. It is impossible and unethical to force people into action, but knowing the right combination of encouragements can lead to the most involvement.

My research was imperfect. Multiple limitations and aspects that I would change in the future came up while conducting my research. An issue I continually ran into was keeping the set of interview questions the same for each person, and of course once I had collected information from a couple of subjects, I wished I could tweak the questions to be more specific and incisive, but that would have skewed the results in ways I did not feel would be acceptable. I imagine this is a problem for many social science researchers. As Chawla (1998) notes, a weakness that exists currently in SLE interviews (but can easily be seen in any interview-based research attempting to standardize results) is differently worded questions. Even a slight change in the way a question is asked, a single word or inflection, can change the way it is interpreted and cause interviewees to respond differently. My interview style made it awkward to keep questions the same. While I was going for an open-ended interview that made participants comfortable, and that might solicit unanticipated responses, asking a direct question that I read off of the page to maintain

consistency created a tone to the interview that made probing answers harder to come by. Another roadblock to keeping questions uniform was that sometimes participants provided an answer to a question that I had not yet asked but planned to, and so I either did not then ask it or alter the wording slightly to see if I could discover more on the subject at that point in the interview.

I would also have liked to interview young environmentalists in other parts of the country, those who did not grow up in the Reykjavik area. While people living outside of the capital area only number at about 135,000 (compared to about 215,000), they would bring their local perspectives, giving my research a more complete view of the country's youth ("Hvað er Stór-Reykjavíkursvæðið stórt sem hlutfall af öllu landinu?", 2017). I also encountered language limitations as I (the interviewer) do not speak Icelandic, and while most Icelanders speak English (all of my participants did, and well!), moments arose in interviews where they mentioned that English was not their first language and were unsure of how to translate Icelandic words. So I cannot 100% authenticate some qualitative responses. Response bias, or the honesty of responses received from interviewees, could have also affected my study. A researcher can never truly know how honest their participants answered their questions, meaning that likely my study is no more affected by response bias than any other social science study.

Another flaw, and one that multiple of my interviewees mentioned about themselves, is that they are not representative of your average Icelandic and have surrounded themselves with people like themselves, so their views of the entire population are skewed. This is something that it is difficult to avoid when doing social science research on people with a specific viewpoint (such as that which attends environmental activism.) It is unclear whether this could have been avoided, but still must be acknowledged as something that distorts the responses of subjects.

Conclusion

Youth in Iceland have taken on a variety of environmental activism roles, domestically, politically, and in the workplace. They view their role within Iceland as important, but are aware of the fact that there is much yet to accomplish when it comes to both the environment and the development of their own groups/careers. These activists serve as ambassadors, a bridge between youth and environmental issues and engagement work, as well as between emerging and existing environmental concerns and the government. This is evident in their efforts to recruit more youth

to their causes, and their use of a variety of non-conflictual tactics to create political activity and promote awareness and change. Their tactics include mounting petitions; commenting on government, industrial, or commercial projects that will have potentially detrimental effects on the environment; meeting with government leaders; and choosing careers in science, politics, environmental concerns, and other related fields through which they might be able to serve and preserve the environment. Each student engaged in a variety of different ways, and to varying degrees, but all had the same thing in mind: the long-term viability and well-being of their country and its inhabitants, human and other as well as the planet.

Iceland's youth are not necessarily doing *more* than youth in other developed areas, but they are out there discovering activist strategies that work for them and thinking outside the box to accomplish their goals. They are strikingly non-confrontational, quietly persistent, and have what feels like remarkable access to their federal government's policy makers. Perhaps their strategies can serve as a model for activism within larger countries at a municipal or state level, or at the federal level in smaller countries. Iceland stands as an example, albeit not a perfect one, of a country keeping lines of communication open between youth and government and even between youth and corporations/businesses on climate change and other environmental issues. They are not afraid to ask, politely and repeatedly. Youth in other countries/regions may want to take a closer look at this persistence, perhaps identifying next steps to generate greater efficacy, greater forward momentum in impacting policy. Petúr talked about the sharing of information, and how vital that is to the youth fight, where we must all push forward and share with each other what has worked and what hasn't worked, giving each other new ideas to try. UU has created a new committee for this exact purpose: to work on international collaboration, encouraging each other, learning from each other, and identifying best practices.

As a visiting student to Iceland, several personal encounters had led me to expect that the number of individuals involved in Iceland's young environmentalist scene, i.e. participation in the *quantitative* sense, to be essentially what my research revealed, modest but definitely present. However, *qualitative* involvement or activism, i.e. the actual activities these youth were doing, was far less complex than I had originally thought. As an outsider from the US where "activist" often means "protester," the actions that youth I spoke with reported seemed ineffective, as if they were not garnering enough attention or support, and were merely talking. But, to the Icelandic youth I spoke with, this approach made complete sense. Their idea of what "activism"

is based on how their political system works, and they believe that their methods are fitting and are as effective as possible. This may beg further exploration into what is an acceptable timetable of change. And also a humble look into how change really is engineered. Perhaps these activists are affecting more change than meets the eye because they are creating awareness where it did not previously exist. In other words, through access to policy makers, and through thoughtful and respectful action, they are setting change in motion. In an ideal world, what today's Icelandic youth are doing on the environmental front would be all *anyone* has to do: appraise the situation, learn what you can, develop suggestions, and call for action from those in a position to make or alter policy.

The process of youth involvement needs to be a lifelong one, requiring a shift in how we raise and teach our children and think about our world, but most importantly we must allow youth to participate, set them a place at the table, and then listen to them. Youth in Iceland have been given an advantage in certain areas, but that does not mean their work is done. They have much ahead of them, and are pushing on in the fight, the fight that simultaneously is against mistreatment of our world and the belief that youth can have little effect. When asked if they had ever considered getting more politically involved, perhaps starting their own party, Petúr replied that if they started a party that stood for environmental justice, then every other party would have to stand for something else, and well, that is not the goal. The goal is to have *everyone* stand for environmental issues. And how would they accomplish that? "Having our presence everywhere."

Appendix A

Participants:

Númi: Númi is a young man living in Reykjavik, currently attending the University of Iceland for a mechanical engineering undergraduate degree. He works with Amnesty International and in high school tried to grow his own food with an elaborate set up in his garage.

Erla: At the time of her interview, Erla had recently received her undergraduate degree in the geological sciences and had spent the summer working as a glacier guide. She is on the board of UU.

Petúr: The director of UU and its only paid employee (for a month). At 29, Petúr was the oldest of my participants. He had received an undergraduate degree in biology and had begun studying for a masters in it as well.

Jóhanna: Jóhanna is a young mother with an undergraduate degree in civil and environmental engineering. She currently works for the energy company Landsvirkjun in Reykjavik, and is considering pursuing a masters degree.

Sigurður: Sigurður has received an undergraduate degree in civil and environmental engineering from the University of Iceland and a masters in environmental engineering from ETH Zurich, in Switzerland. He is on the board of UU and works for an engineering firm in Reykjavik.

Brynhildur: Brynhildur is a biology student at the University of Iceland and hopes to attend medical school. She is primarily interested in children's rights and is a part of Amnesty International.

Bibliography

- About Us / Roots & Shoots*. (2017). *Rootsandshoots.org*. Retrieved 6 November 2017, from <https://www.rootsandshoots.org/aboutus>
- Aðalgeirsdóttir, G., Jóhannesson, T., Björnsson, H., Pálsson, F., & Sigurðsson, O. (2006). Response of Hofsjökull and southern Vatnajökull, Iceland, to climate change. *Journal of Geophysical Research: Earth Surface*, *111*(F3).
- Arnold, H. E., Cohen, F. G., & Warner, A. (2009). Youth and environmental action: Perspectives of young environmental leaders on their formative influences. *The Journal of environmental education*, *40*(3), 27-36.
- Barnes, S., Brinkley-Rubinstein, L., Doykos, B., Martin, N., & McGuire, A. (Eds.). (2016). *Academics in Action!: A Model for Community-Engaged Research, Teaching, and Service*. Fordham University. Retrieved from <http://www.jstor.org/stable/j.ctt18kr69r>
- Bergmann, S., A. Pálsdóttir, E. Kristjánsdóttir, E. Björnsdóttir, G. Óskarsdóttir, K. Norðdahl, S.R. Jónsdóttir, and . Reykdal. (2008). *Teikn um sjálfbærni – menntun byggð á reynslu skóla og samfélags* [Indications of sustainability – Education building on the experience of schools and society. (In Icelandic with a summary in English)]. Kennaraháskóli Íslands. Retrieved 14 November 2017, from http://skrif.hi.is/geta/files/2009/02/teikn_um_sjalfbaerni1.pdf.
- Borgþórsdóttir, A., Snorrason, A., Hallsdóttir, B., Sigurðsson, B. D., Wöll, C., Björnsson, H., ... & Matthíasdóttir, P. B. (2014). Iceland's Sixth National Communication and First Biennial Report. In *Under the United Nations Framework Convention on Climate Change. Reykjavík, Iceland* (Vol. 229).
- Brady, H. E., Verba, S., & Schlozman, K. L. (1995). Beyond SES: A resource model of political participation. *American Political Science Review*, *89*(2), 271-294.
- Chawla, L. (1999). Life paths into effective environmental action. *The Journal of Environmental Education*, *31*(1), 15-26.
- Chawla, L. (1998). Research methods to investigate significant life experiences: Review and recommendations. *Environmental Education Research*, *4*(4), 383-397.

- Devine, C. (2013). *Sigridur Tomasdóttir: Icelandic Waterfall WonderWoman*. [online] WonderWomen. Available at: <http://wonderwomenglobal.com/sigridur-tomasdottir-icelandic-waterfall-wonderwoman/> [Accessed 21 Nov. 2017].
- Eco-Schools*. (2013). *Landvernd.is*. Retrieved 14 November 2017, from <http://landvernd.is/en/Projects/Eco-Schools>
- Edwards, K. (2007). From deficit to disenfranchisement: reframing youth electoral participation. *Journal of youth studies*, 10(5), 539-555.
- Environmental activism*. (2017). *TheFreeDictionary.com*. Retrieved 4 November 2017, from <https://www.thefreedictionary.com/Environmental+activism>
- Environmental issues | Icelandic Tourist Board*. (2017). *Icelandic Tourist Board*. Retrieved 28 October 2017, from <https://www.ferdamalastofa.is/en/quality-and-environment/environmental-issues>
- Feinberg, M., Willer, R., & Kovacheff, C. (2017). Extreme Protest Tactics Reduce Popular Support for Social Movements.
- Fielding, K. S., McDonald, R., & Louis, W. R. (2008). Theory of planned behaviour, identity and intentions to engage in environmental activism. *Journal of environmental psychology*, 28(4), 318-326.
- Finger, M. (1994). From knowledge to action? Exploring the relationships between environmental experiences, learning, and behavior. *Journal of social issues*, 50(3), 141-160.
- Friedman, M. (1991). Consumer boycotts: A conceptual framework and research agenda. *Journal of Social Issues*, 47(1), 149-168.
- Geothermal Heat - Iceland On The Web*. *Icelandontheweb.com*. Retrieved 13 November 2017, from <https://www.icelandontheweb.com/articles-on-iceland/nature/geology/geothermal-heat>
- Giudice, M. (2008). *Iceland's Heated Debate - National Geographic Magazine*. [online] Ngm.nationalgeographic.com. Available at: <http://ngm.nationalgeographic.com/2008/03/iceland/del-giudice-text/1> [Accessed 21 Nov. 2017].
- Guerra, J., Schmidt, L., & Valente, S. (2016). Dilemmas of sustainability in turbulent

- times. *Green European: Environmental Behaviour and Attitudes in Europe in a Historical and Cross-Cultural Comparative Perspective*, 221-240.
- Harris, A., Wyn, J., & Younes, S. (2010). Beyond apathetic or activist youth: 'Ordinary' young people and contemporary forms of participation. *Young*, 18(1), 9-32.
- Hill, A. (2011). *Mark Kennedy 'played key role in forming green movement in Iceland'*. [online] The Guardian. Available at: <https://www.theguardian.com/environment/2011/jan/14/mark-kennedy-iceland-green-movement> [Accessed 21 Nov. 2017].
- Hvað er Stór-Reykjavíkursvæðið stórt sem hlutfall af öllu landinu?*. (2017). *Vísindavefurinn*. Retrieved 7 November 2017, from <https://www.visindavefur.is/svar.php?id=2245>
- Iceland named greenest country in the world* (2010). *Icenews.is*. Retrieved 19 November 2017, from <http://www.icenews.is/2010/01/28/iceland-named-greenest-country-in-the-world/#axzz4ysDzK61P>
- The Icelandic national curriculum guide for compulsory school : general section*. (2012). Reykjavik.
- Jóhannesson, I. Á., Norðdahl, K., Óskarsdóttir, G., Pálsdóttir, A., & Pétursdóttir, B. (2011). Curriculum analysis and education for sustainable development in Iceland. *Environmental Education Research*, 17(3), 375-391.
- Johnson, L. R., Johnson-Pynn, J. S., & Pynn, T. M. (2007). Youth civic engagement in China: Results from a program promoting environmental activism. *Journal of Adolescent Research*, 22(4), 355-386.
- Klar, M., & Kasser, T. (2009). Some Benefits of Being an Activist: Measuring Activism and Its Role in Psychological Well-Being. *Political Psychology*, 30(5), 755-777.
- Kluger, J. (2017). *5 Ways Climate Change May Be Making Hurricanes Worse*. *Time*. Retrieved 14 November 2017, from <http://time.com/4933743/hurricane-irma-climate-change-global-warming/>
- Knutson, T. R., McBride, J. L., Chan, J., Emanuel, K., Holland, G., Landsea, C., ... & Sugi, M. (2010). Tropical cyclones and climate change. *Nature Geoscience*, 3(3), 157-163.

- Landvernd.is. (2017). *Icelandic Environment Association*. [online] Available at: <http://landvernd.is/en> [Accessed 21 Nov. 2017].
- McDougle, L. M., Greenspan, I., & Handy, F. (2011). Generation green: understanding the motivations and mechanisms influencing young adults' environmental volunteering. *International Journal of Nonprofit and Voluntary Sector Marketing*, 16(4), 325-341.
- Nvdatabase.swarthmore.edu. (n.d.). *Icelanders protest Karahnjukar Hydropower Project, 2000-2006 | Global Nonviolent Action Database*. [online] Available at: <https://nvdatabase.swarthmore.edu/content/icelanders-protest-karahnjukar-hydropower-project-2000-2006> [Accessed 21 Nov. 2017].
- Pielke Jr, R. A., Landsea, C., Mayfield, M., Laver, J., & Pasch, R. (2005). Hurricanes and global warming. *Bulletin of the American Meteorological Society*, 86(11), 1571-1575.
- Publications | National Energy Authority of Iceland*. (2017). *Nea.is*. Retrieved 30 October 2017, from <http://www.nea.is/the-national-energy-authority/publications/>
- Quick Facts*. (2017). *Iceland.is*. Retrieved 31 October 2017, from <http://www.iceland.is/the-big-picture/quick-facts>
- Reykjavik Population*. (2017). *Worldpopulationreview.com*. Retrieved 18 November 2017, from <http://worldpopulationreview.com/world-cities/reykjavik-population/>
- Roser-Renouf, C., Maibach, E. W., Leiserowitz, A., & Zhao, X. (2014). The genesis of climate change activism: From key beliefs to political action. *Climatic change*, 125(2), 163-178.
- Savingiceland.org. (n.d.). *Saving Iceland*. [online] Available at: <http://www.savingiceland.org/> [Accessed 21 Nov. 2017].
- Shell: #makethefuture – clean up the Niger Delta!*. (2015). *Amnesty.org*. Retrieved 8 November 2017, from <https://www.amnesty.org/en/latest/campaigns/2015/11/shell-clean-up-oil-pollution-niger-delta/>
- Smith, D. (2003). *Cite a Website - Cite This For Me*. *Apa.org*. Retrieved 13 November 2017, from <http://www.apa.org/monitor/may03/acceleration.aspx>
- Speer, M. (2012). *Iceland is the Greenest Country in the World*. *Sustainable Earth | Going Green Tips | Eco-Friendly Living*. Retrieved 19 November 2017, from

<http://www.isustainableearth.com/sustainable-living/iceland-is-the-greenest-country-in-the-world>

Steinbeis, N., Bernhardt, B. C., & Singer, T. (2012). Impulse control and underlying functions of the left DLPFC mediate age-related and age-independent individual differences in strategic social behavior. *Neuron*, 73(5), 1040-1051.

Stryker, S. (1968). Identity salience and role performance: The relevance of symbolic interaction theory for family research. *Journal of Marriage and the Family*, 558-564.

Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Benjamin-Cummings Publishing Company.

Sustainabledevelopment.un.org. (n.d.). *Children and Youth: Sustainable Development Knowledge Platform*. [online] Available at: <https://sustainabledevelopment.un.org/majorgroups/childrenandyouth> [Accessed 23 Oct. 2017].

Swim, J., Clayton, S., Doherty, T., Gifford, R., Howard, G., Reser, J., ... & Weber, E. (2009). Psychology and global climate change: Addressing a multi-faceted phenomenon and set of challenges. A report by the American Psychological Association's task force on the interface between psychology and global climate change. *American Psychological Association, Washington*.

Thomashow, M. (2001). *Bringing the biosphere home: Learning to perceive global environmental change*. MIT Press.

Unesco.org. (n.d.). *What do we mean by "youth"?*. [online] Available at: <http://www.unesco.org/new/en/social-and-human-sciences/themes/youth/youth-definition/> [Accessed 16 Nov. 2017].

United Nations., & Expert Group Meeting on Global Priorities for Youth. (2004). *World youth report, 2003: The global situation of young people*. New York: United Nations.

Vargas, N. (2017). *What Climate Change Could Mean For The Future Of Iceland Tourism. Culture Trip*. Retrieved 28 October 2017, from <https://theculturetrip.com/europe/iceland/articles/what-climate-change-could-mean-for-the-future-of-iceland-tourism/>

Scultz, W. (2002). Empathizing with nature: The effects of perspective taking on concern for environmental issues-statis. *Journal of Social Issues*, 56(3), 391-406.

The World Factbook — Central Intelligence Agency. (2017). *Cia.gov*. Retrieved 28 October 2017, from <https://www.cia.gov/library/publications/the-world-factbook/geos/ic.html>

Wray-Lake, L., Flanagan, C. A., & Osgood, D. W. (2010). Examining trends in adolescent environmental attitudes, beliefs, and behaviors across three decades. *Environment and behavior*, 42(1), 61-85.

Yeld, J. (1997). *Caring for the earth, South Africa*. Stellenbosch: Published by WWF South Africa in partnership with the World Conservation Union, United Nations Environment Programme and the Gold Fields Foundation.