

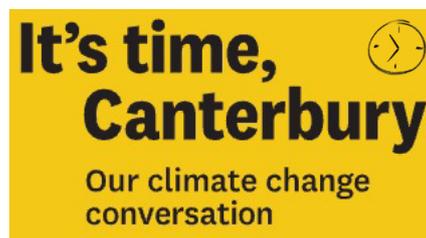
GEOG309 – Research for Resilient Environments and Communities

Engaging with Young People on Climate Change

*What are the key messages and mechanisms that encourage young people
(aged 17-25) to be more climate active?*

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1.0 Executive Summary

- Environment Canterbury's '*It's Time, Canterbury*' campaign aims to foster discussion around climate change and an understanding of the effects of climate change in Canterbury.
- Young people, aged 17 to 25, are an under-researched demographic. Environment Canterbury wishes to know how best to engage with young people on climate change.
- The research aimed to identify the key messages and mechanisms that engage young people to be more climate active.
- Social media, identities, narratives and language techniques were addressed.
- Snowball and convenience sampling were used to recruit participants for a survey and focus groups to collect quantitative and qualitative data.
- Data analysis involved proportional and count data, chi-squared analyses, and codes.
- Messages framed in a persuasive and factual lens with clear language and examples of people being climate active were found to be engaging for young people.
- Instagram was the most used social media platform, and short video clips were most popular, meaning these are key mechanisms to engage young people.
- Young people identify most with other New Zealanders. This is another mechanism for engaging young people.
- Statistically significant relationships were found between certain narratives and social media content, and these helped to inform our recommendations.
- Time constraints, sampling, and representation were all limitations of this research.
- Future research should seek rangatahi Māori perspectives, and study insights from a broader range of Canterbury's young people.

2.0 Introduction

This research project aimed to identify the key messages and mechanisms that engage young people, aged 17 to 25 years, to be more climate active. This was developed to aid Environment Canterbury (ECan) in the second stage of their campaign '*It's Time, Canterbury*'. This campaign aims to foster climate change discussions to encourage young people to be more climate active. This research was carried out with our community partner, Rachel Young, Senior Leader Communications and Engagement – Regional Programmes and Delivery with associates Fiona Shanhun, Chief Scientist at ECan and Chelsea Halliwell, Project Lead – Communication and Engagement. Our research hopes to address this under-researched demographic and broaden the understanding of climate change engagement to encourage young people to drive sustainable futures among their family and peers.

This report, supported by relevant literature, explores our methods, and the different techniques used to analyse the data. We will investigate our results, academic literature and the strengths and limitations of the research. Finally, we will make evidence-based recommendations to ECan.

2.1 Objectives

Our overarching research aim was split into three objectives.

1. To understand how mechanisms of media platforms can play a role in engaging young people with climate change.
2. To understand how identities can engage young people with climate change.
3. To understand how narratives and language techniques can engage young people with climate change.

3.0 Literature Reviews

ECan has highlighted the lack of information regarding youth engagement with climate change. In this section, we highlight the five interconnected subthemes that underpin our research. This process strengthened our understanding of each theme and the types of methods used to collate data.

3.1 Past Youth Motivations for Climate Action

Past motivations that have initiated climate action in young people provide context for this research. Firstly, emotions and emotional connections, especially feelings of hope or despair, were demonstrated to be significant drivers of climate action in the past (Nairn, 2019). Secondly, Bright and Eames (2020) examined how social justice in the form of concern for vulnerable communities, was considered an important motivation. The third significant motivation for climate action was the opportunity to engage in collective action. This promoted collective expression of concern to 'share the burden', and this helped to relieve anxiety associated with climate change (Bright & Eames, 2020; Martiskainen et al., 2020).

3.2 In-group Psychology and Collective Action

The topic of group and community psychology was a salient theme that came up in our research. Community psychology was a focus in Haugestad et al. (2021) which found that young people that participated in climate marches attributed their climate active behaviour to a sense of community and belonging. Masson and Fritsche (2014), Rees and Bamberg (2014), and Wang and Lin (2017) studi found that ingroup norms encouraged climate active behaviour when an individual had strong links to the group identity. Lastly, we investigated the connection of residents to places and landscapes as a motivation for climate active behaviour. This behaviour in communities was at its strongest when climate change was coupled with consistent messaging (Groulx et al., 2014).

3.3 The use of Social Media to promote Engagement with Climate Change

Social media's influence on youth engagement is important as they are the future leaders of society. Therefore, climate change communication mechanisms are important for awareness and education (Ojala & Lakew, 2017; Andersson & Öhman, 2017; Bandura & Cherry, 2020). Boulianne et al. (2020) study explains that social media is transforming political engagement by giving youth the ability to voice their concerns to a global audience at the push of a button. Moreover, Senbel et al. (2014) explores how engagement in an energy conservation social media application can cause long term environmental-friendly behaviour change in university students.

3.4 The use of Role Models and Campaigns to Engage Youth

This research explored the relationship between role models and their influence on youth. Wardell (2014) was based on a Mental Health Awareness Campaign where Sir John Kirwan, a mental health advocate and All Black, promoted awareness around helping youth to understand mental health whilst challenging the stigma around mental health in New Zealand. This highlighted the success of a celebrity's influence on a specific demographic. Moreover, Cherry (2021) explained how short films featuring role models had a positive effect on young viewers.

3.5 Exploring Language, Narratives and Techniques used to Engage Youth

Language, narratives and advertisement are fundamental concepts that passively shape human behaviour and habits, these must be understood to implement positive, environment-friendly change (Akinbode, 2012). Studies have shown that knowing your target audience is vital information as it determines how to frame messages to a specific group (Corner et al., 2014; Corner et al., 2014). Youth found that when material sounded urgent, was widely supported, and had clear solutions that they were willing to take action (Corner et al., 2014). These studies also stated that peer-to-peer conversations around climate change were engaging as it removed stigma (Corner et al., 2014; Corner et al., 2015).

4.0 Methodology

4.1 Survey

An online survey constructed using Qualtrics software, was our quantitative data source (Clifford et al., 2016). The survey consisted of 35 questions in three sections: 'about me', 'climate change attitudes and behaviours', and 'climate change communication'. The questions were predominantly multiple-choice but also included matrix and rank questions. Prior to launching, the survey was piloted in order to test timing, question flow, and identify errors. The draft survey was adjusted accordingly.

To avoid data from ineligible participants the 'linkage' Qualtrics function was utilised. Participants who did not consent, were outside our target age group (17 - 25) or did not live in Canterbury, were directed to the final page of the survey where they were thanked for their interest but prevented from continuing.

4.1.1 Survey Distribution

The survey was distributed via convenience sampling to contacts, sport teams, work colleagues, ECan's Youth Rōpū, Hagley College and Christchurch Girls' High School students, Dr Abby Suszko's student network, and Te Akatoki Māori students association. The snowball technique was utilised to encourage others to share the link.

4.1.2 Survey Data Analysis

There were 176 complete responses which were used in the analysis. The average age of survey participants was 20.7. There was a range of ethnicities and gender identities. Moreover, part-time and full-time workers composed 30% of the sample.

Proportions and count data were graphed in Microsoft Excel for visualisation. Chi-square analyses were run in Qualtrics to identify any statistically significant relationships between variables.

4.2 Focus Groups

We utilised focus groups as supplementary data for the survey allowing us to gain a deeper insight into diverse experiences (Clifford et al., 2016). Participants were recruited using convenience sampling from our personal contacts. A semi-structured interview style was used with open-ended questions encouraging conversation (Secor, 2010). After minor adjustments the questions were finalised (Appendix E).

All focus groups were recorded. The moderators also noted interesting quotes and discussion topics on paper. This was transcribed and a copy was sent out to participants. We analysed this qualitative focus group data using 'codes' that related to our three objectives.

Two workers and one student focus group were run, with a total of 9 participants. Focus groups ran for approximately 40 minutes. Unfortunately, we were unable to run a rangatahi Māori focus group due to time constraints, however the engagement process was still undertaken, as discussed in Section 5.0.

4.3 Ethics

Appropriate ethical considerations were undertaken for our research as we were dealing with potentially sensitive information. We sought project approval from UC's Human Research and Ethics Committee. Both the survey and focus groups had an information sheet and consent form attached, which can be seen in Appendix A and C. These consent forms were required to be completed by all participants before engaging in our survey and/or focus group. Participant's data was kept anonymous, and they were free to retract their data at any point (Clifford et al., 2016).

5.0 Engagement with Mana Whenua

Rangatahi Māori perspectives were an important consideration when investigating the key messages and mechanisms that encourage young people to be climate active. To do this we planned on engaging with rangatahi Māori in our survey and focus groups. We ensured that we underwent appropriate steps to engage with mana whenua by conducting our research in a culturally responsive, and sensitive way.

With assistance from our College of Science kaiārahi, Dr Abby Suszko, we followed the Ngāi Tahu Consultation and Engagement Group (NTCEG) avenues by completing a 'Māori Consultation Form' (Appendix F). We considered the significance of the information we would be asking for in our focus group, such as reference to tikanga and taonga. We also detailed our intentions to implement culturally-responsive procedures, including: proper greetings, mihi, whakawhanaungatanga, the provision of kai, and if possible a koha, along with usual ethics procedures such as anonymity. The Māori Consultation Form was approved by Sarah Wiki-Bennett on behalf of the NTCEG. Thereafter, we developed potential focus group questions with our College of Science kaiārahi, to ensure they were culturally sensitive (Appendix E).

6.0 Results

6.1 Narratives and language

In the survey and focus groups, young people were questioned on what narratives would be most engaging, since these may alter the way that climate change is represented and perceived. The most popular narrative was the 'persuasive and factual' approach, with 34% (n = 59) of participants agreeing this would be the most engaging, as seen in Figure 1. This narrative revolves around using statistics and facts.

The two next most popular narratives were the 'here and now' approach (24%; n = 42), and the 'social justice' approach (23%; n = 40). All examples of types of narratives can be found in Appendix D, Q33.

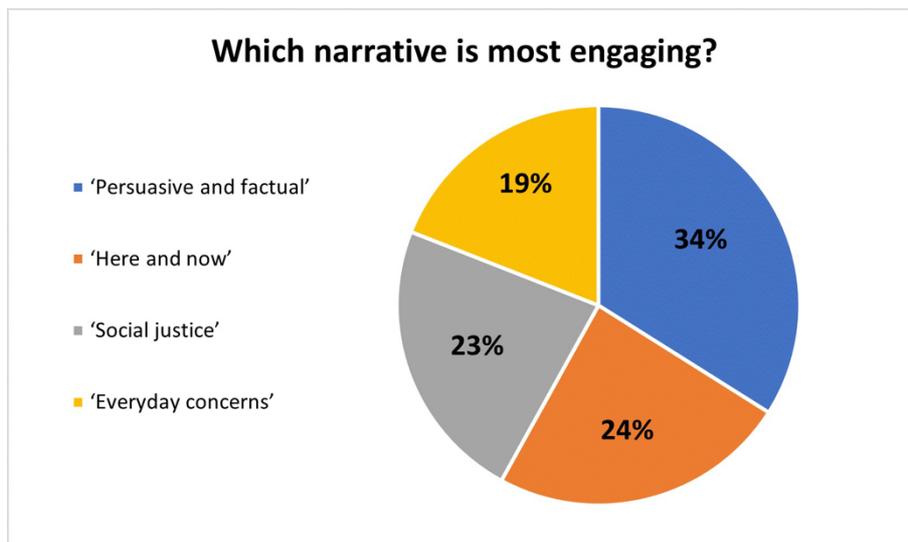


Figure 1. Pie chart presenting the results of the most and least engaging narratives.

Additional to the specific narratives, the survey also questioned participants on what general climate change content would be most engaging, as seen in Figure 2. 30% (n = 51) of participants believed that the most engaging content would be seeing 'people's documented climate actions'. This was followed by 'positive and inspirational' content (28%; n = 48), as seen in Figure 2.

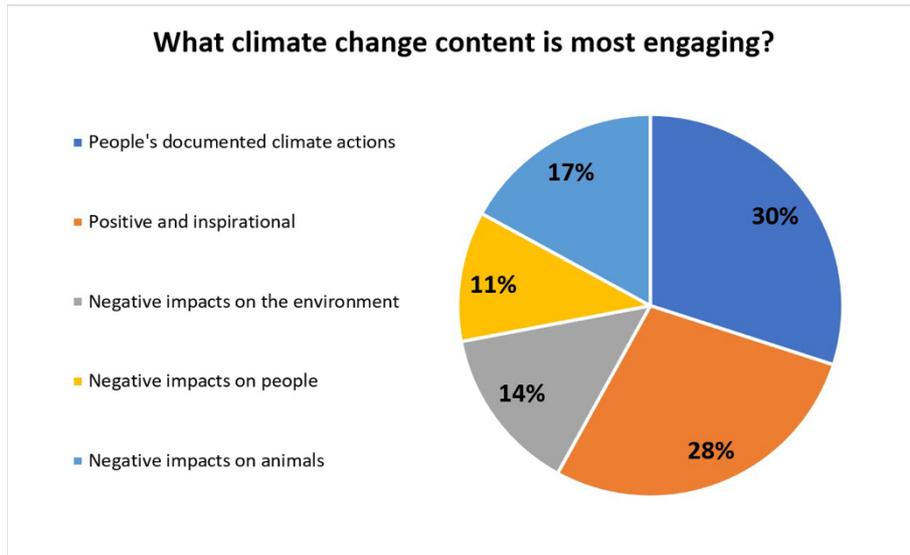


Figure 2. Pie chart presenting the results of the most and least engaging climate change content.

The survey also questioned participants on what kind of language would be most effective for engagement. This included how specific message framing techniques engaged youth on climate content. The results of the survey question “Rank from most effective (1) to least effective (4) the type of advertisement language you find most engaging” (Figure 3). The mean rank value for ‘English language’ was the highest (1.78), indicating that this is what the participants thought would be most effective. This was followed by ‘Scientific language’ (2.45), ‘Slang’ (2.46) and ‘Te Reo and other languages’ (2.46).

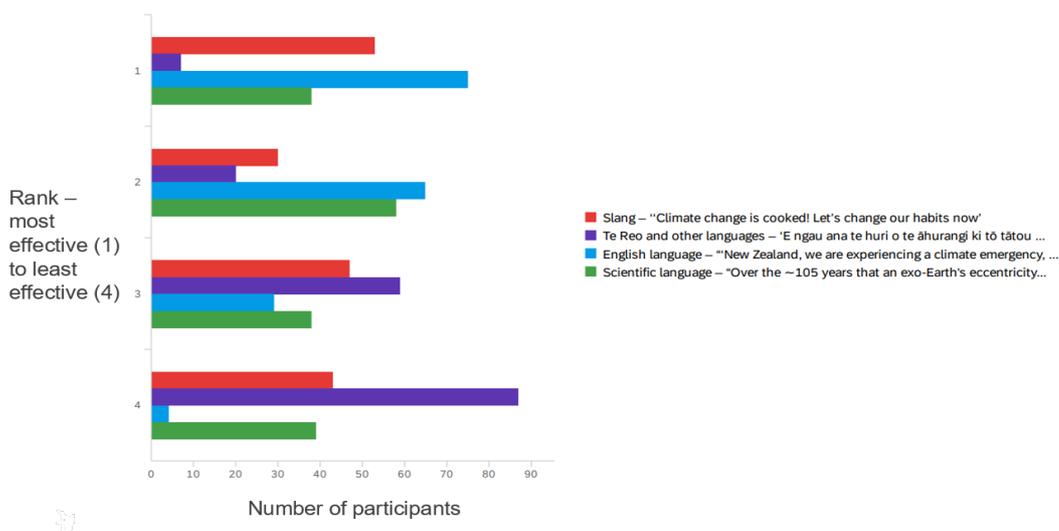


Figure 3. The ranking of types of language, from most effective (1) to least effective (4).

The focus groups had similar results to the survey relating to narratives and language:

“...Want [the language] to be short and sweet.”

- Female worker (25)

The importance of concise text, whether it be for a post or image caption was a key point of discussion:

"If you're adding text, it has to be bullet points, I'm not going to read paragraph after paragraph."

- Male university student (22)

6.2 Social Media

Instagram was ranked the most used platform for young people with an average of 3.06 on a ranking scale between 1 and 5, with 5 being the most used. This was followed by Snapchat (2.47), Facebook (2.09) and YouTube (2.07). We found that short media clips, under 1 minute, were most popular with just over 40% (n = 71) followed by long video clips (over 1 minute) with 18.3% (n = 32) then Instagram stories with 14.3% (n = 25), as seen in Figure 4.

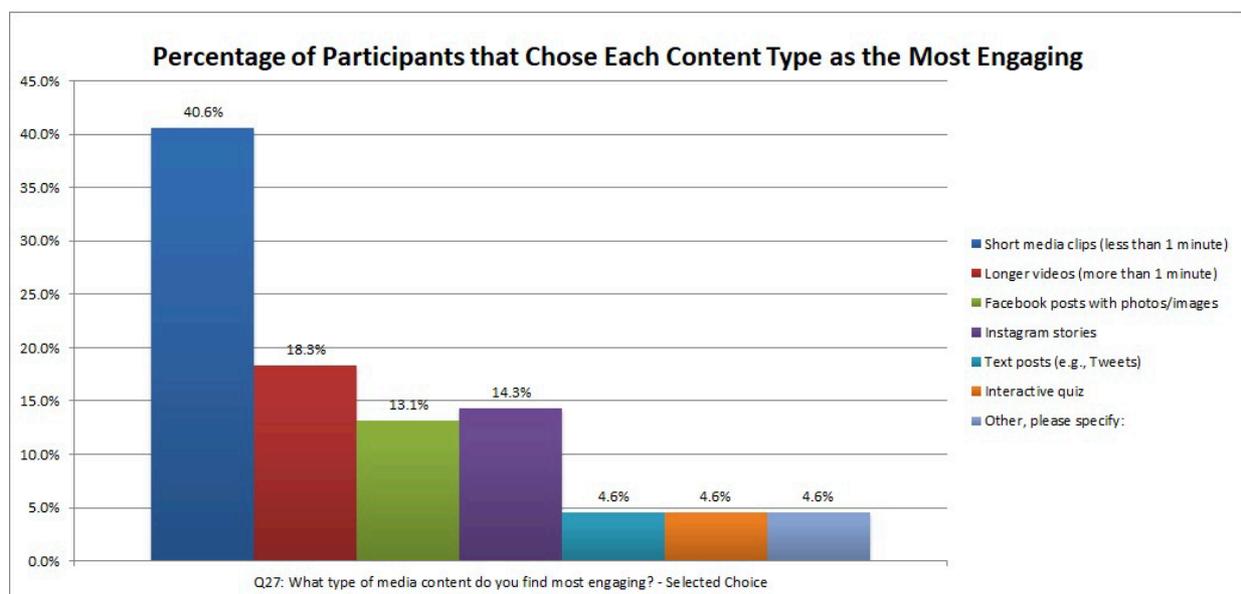


Figure 4. Bar chart demonstrating the types of social media content that participants find most engaging.

The average time spent on social media within a day was 3.45 hours. Also, 60% (n = 102) of survey participants were likely to follow a climate change related social media page/account.

A key discussion point within the focus groups was how social media is considered accessible and addictive among youth, thus is an effective means of communication to the age demographic 17-25:

“Social media for sure seems like it has far reach, especially for our generation.”

- Male worker (21)

Focus group participants felt that along with photos and videos, simplistic graphics would be a suitable option for social media posts:

“A picture paints a thousand words, they just answer all the questions for you.”

- Male tertiary student (22)

And:

“...Cartoons are simple, quick, and attention-grabbing.”

- Female worker (22)

And:

“Instagram is pretty popular at the moment, and I’d say most of my mates use it a lot.”

- Male worker (18)

6.3 Identity

Identity is a concept we explored to understand what groups young people feel most connected to 64% (n = 112) of participants rated being a New Zealander important or very important to their identity. Political affiliation was the next most significant with 28.9% (n = 53), as seen in Figure 5.

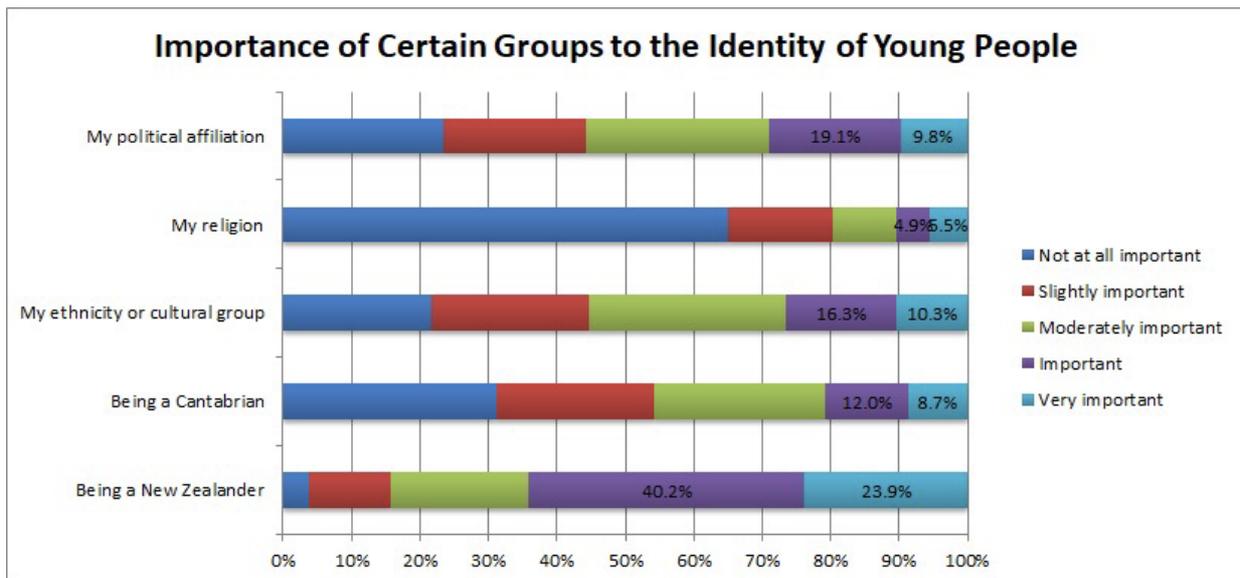


Figure 5. Stacks bar demonstrating the importance of certain identities to young people.

When asked ‘What type of role-model would most likely influence you to be more climate active?’ most participants (45%) answered ‘people [their] own age’.

The theme of peers as role models was explored in the focus groups:

“if I saw someone like me, another mum, I would be more inclined to get involved [in climate active behaviour]”.

- Female worker (25)

6.4 Comparative Analysis

In order to further our understanding of the key messages and mechanisms that encourage young people to be more climate active, relationships between narratives and the type of post on social media were analysed using a Chi-squared test. A Chi-squared test was selected as it was most appropriate for data with multiple categories. There was a statistically significant relationship between narratives and the type of post used ($p = 0.0258$). However, this was calculated using a Cramer’s Value for best fit.

However, this tends to overestimate the strength of association. The Cramer's V was 0.245 which shows a moderately strong relationship for variables with more than 4 categories.

The relationship between Facebook posts and the 'here and now' approach is statistically more significant than predicted. Whereas, the relationship between longer videos and everyday concerns was statistically less significant than predicted, as seen in Table 1.

The relationship between social media platforms and narratives was also investigated but returned no statistical significance. Despite these results we are still able to contribute recommendations based on the literature and proportional data.

Table 1. Proportions of narratives selected in relation to the type of social media post selected.

| | Here and Now | Everyday Concerns | Persuasive and Factual | Moral/Social Justice |
|--|--------------------|-------------------|------------------------|----------------------|
| Short media clips (less than 1 minute) | 35.7% | 45.5% | 39.0% | 42.5% |
| Longer videos (more than 1 minute) | 28.6% | 6.1% ^v | 18.6% | 17.5% |
| Facebook posts with photos/images | 23.8% [^] | 6.1% | 13.6% | 7.5% |
| Instagram stories | 9.5% | 24.2% | 11.9% | 15.0% |
| Text posts (e.g., Tweets) | 0.0% | 9.1% | 1.7% | 10.0% |
| Interactive quiz | 0.0% | 9.1% | 5.1% | 5.0% |
| Other, please specify: | 2.4% | 0.0% | 10.2% [^] | 2.5% |

7.0 Discussion

7.1 Key Messages

To answer our research question, we found key messages using concepts of narratives and language, which addresses our third objective.

7.1.1 Narratives and Language

As outlined in Section 3.5, narratives and language are important messaging techniques used to engage youth. The persuasive and factual approach was seen to be the most engaging to young people. This approach creates a sense of urgency which encourages young people to take action (Corner et al., 2014). Short messages such as simple facts and statistics about climate change are attractive to young people as they are easy to understand. Furthermore, the most engaging climate change content was people's documented climate actions. This would provide examples of clear solutions in the form of members of the community undertaking climate-friendly tasks or sharing climate-friendly solutions (Ballantyne et al., 2015).

The 'social justice approach' narrative was less popular than expected (Bright & Eames, 2020). Our focus group results alluded to bright, positive messages with solutions, as opposed to seeing media content that was framed negatively as it often left youth having feelings of helplessness and anxiety regarding climate change.

The types of language used in climate change content is important because the target audience may be more responsive to a message framed in a specific way (Corner et al., 2014; Hodson et al., 2020). The most popular language used was plain English. This is to be expected as it is understood by most people in New Zealand. Hodson et al. (2020) describes that visuals combined with accessible language are important techniques for engaging people in environmental issues. Te reo Māori and other languages

were considered the least effective language type. This is likely an effect of sampling. There were only a small proportion of Māori participants.

As demonstrated in the results, 'scientific language' and 'slang' were both relatively important but had quite large variability among participants. Corner et al. (2014; 2015) stated that peer-to-peer conversations often removed stigma around controversial issues, so this likely relates to the use of slang in climate change content. Scientific language may be more effective for some participants in our results as 40% of the tertiary students who undertook the survey had studied environmental courses. Again, the variance in both 'scientific language' and 'slang' effectiveness highlights the importance that personalisation of the information has on engagement (Hodson et al., 2020).

7.2 Key Mechanisms

To answer the second component of our research question, regarding what the key mechanisms are that engage young people in climate action, we found that social media and identity should be considered. These two concepts address our first two research objectives.

7.2.1 Social Media

Social media was investigated as a key mechanism to encourage climate active behaviour in young people as the literature suggested that young people are avid social media users (Kranzler et al., 2019). This was supported by the results which clarified that young people spend on average approximately 3.45 hours a day on their smartphone, typically using Instagram and Facebook daily (Hodson et al., 2020). This was seen in our study as participants ranked Instagram, Snapchat and Facebook as the top three used, followed closely by YouTube.

The mechanism of short media clips was confirmed in the focus groups as being very engaging. Participants focused on short videos on Instagram being attention grabbing, some mentioning the need for instant gratification on social media. A similar outcome was seen in the literature with short videos

such as the ones on TikTok being rated more engaging than longer videos (Chen et al., 2021; Hodson et al., 2020).

7.2.2 Identity

One key objective that was explored in this research was the role that identity played in encouraging young people to be more climate active. This objective focused on the sub themes of role models, in-group psychology and collective action. The results showed that the majority of participants viewed being a New Zealander as important or very important to their identity. The literature conveyed the importance of group identity in promoting climate active behavioural change (Wang & Lin, 2017; Rees & Bamberg, 2014). The more an individual is invested in the group's identity the more likely they would be to alter their behaviour (Masson & Fritsche., 2014). Therefore, using other New Zealanders to encourage climate active behaviour in young people will promote a sense of community and trigger a higher investment in climate change. A similar approach was used by the New Zealand Government's COVID-19 advertisement which used videos of New Zealanders supporting the COVID-19 vaccine to protect the "Team of 5 million" (Beattie & Priestley, 2021).

Secondly, the results established that the most popular role models likely to encourage climate active behaviour in young people were people their own age. This may be explained by young people being able to see similarities between themselves and other young people being climate active. This may be due to in-group psychology of valuing the opinion and actions of your peers which have the ability to shape an individual's behaviour (Masson & Fritsche, 2014; Wang & Lin, 2017). This view was supported in the focus groups, one participant saying:

"if I saw someone like me, another mum, I would be more inclined to get involved [in climate active behaviour]"

- Female Worker (25)

7.2.3 Comparative Analysis

We investigated the way in which the key messages of narratives interacted with the way in which social media content was presented. There was a statistically significant relationship between these two variables. The relationship between the 'here and now' approach and Facebook posts was statistically higher than expected. This could be explained by the 'here and now' narrative coupling urgent messaging with encouraging solutions and calls to action which was seen to be effective in Hodson et al. (2020). Furthermore, effective imagery through Facebook posts may increase engagement by promoting self-efficacy through climate solutions (O'Neill et al., 2013).

From the literature it was expected that the 'social justice' approach would have been most widely represented (Bright & Eames, 2020). Surprisingly, 42.5% of this narrative's responses were in the short media clip group, followed by long video clips at 17.5%. Despite these results, longer videos on YouTube have been shown to be used as a tool to search for information on issues that young people care about (Hodson et al., 2020). A long video format may be the most appropriate form of social media post to relay social justice climate messaging as the topics may struggle to reach the level of detail desired in under a minute. A way to incorporate both short and long video formats on social media is to have short Instagram stories or reels that are enticing, similar to that of a movie trailer, that then links on to the longer video. Young people in the focus groups indicated the need for attention grabbing content that is quick and easy to watch. This way, the short video engages a wider audience that may have been initially off put by the length of a longer video, which can also be seen as a deterrence to climate active engagement in young people.

To explore the mechanism of social media and the types of messages through social media content the relationship between the two variables was investigated. There were no statically significant relationships between social media platforms and the type of content used. This does not appear unusual as content such as people's documented climate active behaviours does not seem limited to one social media platform.

8.0 Strengths and Limitations of the Research

8.1 Strengths

We identified multiple strengths throughout this research project. Firstly, the quality of our survey was laudable as the data collated answered our research question. Despite the survey only running for 18 days, we managed to receive 176 complete responses, which is a large sample size for the timeframe. Among these we achieved sufficient representation regarding workers. Another strength was our professional and efficient communications skills, between group members, our tutor and community partner.

8.2 Time Limitation

The most notable limitation of our research was the short timeframe of 12 weeks. This impacted our choice of sampling method and more notably our engagement with rangatahi Māori as we were unable to organise this focus group. Furthermore, these time restrictions were exacerbated due to COVID-19 as we planned our survey and focus groups online.

8.3 Sampling Method Limitation

Convenience sampling has limited the usability of our results as it is not an accurate representation of the population of 17-25 year olds in Canterbury. This is due to our methods targeting our contacts, most of which were 20-22 years of age and university students. To minimise this limitation our group contacted Christchurch Girls' High School and Hagley College year 13 students as well as the Youth Rōpū to attempt to sample the 17-18 age demographic. Moreover, our group made an effort to target students who were not known to study climate change related courses as we thought this may cause bias in our results. Since our results are not an accurate representation of the 17-25 population in Canterbury our findings lack transferability, making our results limited to our particular group of participants.

8.4 Lack of Rangatahi Maori Perspectives

Another limitation that arose from our sampling method was the lack of a rangatahi Māori voice. We attempted to organise a rangatahi Māori focus group intending to incorporate matauranga Māori into our report. Despite being unable to organise a rangatahi Māori focus group, several members from the focus groups were Māori, and 9.23% of our survey respondents identified as Māori. However, the survey and focus groups did not emphasize Te Ao Māori.

9.0 Recommendations for ECan and Further Research Needs

Based on our findings we can make the following recommendations to ECan:

1. To use short videos, Instagram stories or reels as attention grabbing content that links to longer videos, to engage a wider audience.
2. To promote small tasks that are environmentally-friendly to encourage behavioural changing using Instagram stories, posts and short videos.
3. The use of longer videos on YouTube would benefit from using either a persuasive and factual, or social justice narrative as this way the information presented to young people can be more in-depth.
4. Exploring the use of a 'here and now' narrative on Facebook as it was seen to be statistically significant, albeit Facebook may be less engaging for young people than other platforms.
5. To integrate young New Zealanders and Cantabrians into climate change media in order to engage young people with familiar identities.

Throughout this project we have identified opportunities for future research. For example, rangatahi Māori perspectives should be undertaken with similar objectives, so that Māori perspectives can be highlighted in this space. The University's Strategy for Māori Development can be supported and Māori communities can benefit. Additionally, perspectives from other areas of Canterbury would give a more reliable representation of Canterbury youth. Research using a wider reach would be more transferrable, allowing for nation-wide application. Moreover, research could be undertaken comparing the differences in response between further groups or categories in this study, such as age and ethnicity.

In order to help ECan visualise our recommendations, we have constructed two media posts. Figure 6 demonstrates the second and fifth recommendations through an example of an Instagram post

incorporating a student of the target age range engaging in a climate friendly activity. The other Instagram post demonstrates a simple cartoon concept using minimal text.



Figure 6. Example media posts that incorporate our recommendations. A student of the target age range, engaging in climate action (left) and a cartoon concept with minimal text (right)

10.0 Conclusion

This report has investigated the key messages and mechanisms that encourage young people (17-25) to be more climate active. Among these are the use of narratives, language, social media platforms and identities. These messages and mechanisms can assist ECan in the second stage of *'It's Time, Canterbury'*, and ultimately encourage understanding of climate change effects, and climate action within this under-researched demographic. The recommendations made are a starting-point for ECan to engage with young people, but further research should be undertaken to address limitations in this study such as a lack of representation from rangatahi Māori.

11.0 Acknowledgements

We would like to thank our community partner, Rachel Young, Senior Leader Communications and Engagement – Regional Programmes and Delivery at ECan for her support and guidance throughout the course of this research.

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13.0 Appendix

Appendix A: Survey Information Sheet and Consent Form

School of Earth and Environment
T: +64 3 369 0467
kate.prendergast@canterbury.ac.nz
6/09/21



Engaging with young people on climate change. Information Sheet for participants

Kia ora,

You are invited to participate in a research study about engaging young people (people aged 17-25) on climate change. This study is being done by a group of third year geography students from the University of Canterbury ITe Whare Wānanga o Waitaha.

What is the purpose of this research?

This research aims to identify the key messages and mechanisms that encourage young people (people aged 17-25) to be more climate active. We are interested in finding out the different messages and approaches that entice environment-friendly change in young people. The information from this study will help identify ways to engage with young people about climate change more effectively.

Why have you received this invitation?

We're inviting young people aged 17 to 25 years, who live in Canterbury to participate in an online survey. You have been asked to participate because you responded to a request for participation or you have been referred to this online survey by people who thought you may be interested in it.

Your participation is voluntary, which means you do not have to partake in the online survey. If you choose not to participate there are no consequences, for example it will not affect your relationship with any of our group members or the University of Canterbury or Environment Canterbury.

What is involved in participating?

If you choose to take part in this research, you will complete an online survey. The survey involves answering some general questions about yourself, followed by questions about climate change behaviours, attitudes and communication. Completing the survey should take between 5-10 minutes.

Are there any potential benefits from taking part in this research?

We do not expect any direct benefits from you personally completing this survey. However, the information gathered will potentially benefit yourself and other young people in the future. Our research may help promote climate change campaigns in Canterbury.

Are there any potential risks involved in this research?

We are not aware of any risks to participants in the research. However, if you find any particular questions sensitive to you, there is no pressure to finish the survey.

What if you change your mind during or after the study?

You are free to withdraw at any time. To do this, simply close your browser window that the survey is presented on. Any information you have entered up to that point will be deleted from the data set. As

this is an anonymous survey it will not be possible to withdraw your information after you have completed the survey.

What will happen to the information you provide?

All data will be anonymous. We will not be able to identify you or link your identity with any responses you provide. All data will be stored on the password protected Qualtrics network.

The data provided will only be used in this research project (not externally). Dr Kate Prendergast will be responsible for making sure that only members of the research team use your data for the purposes mentioned in this information sheet.

Will the results of the study be published?

The results of this survey will be published in an undergraduate project report, which you can access on the [Geography Community Engagement Repository](#) from November 2021. You will not be identifiable in the results of the survey or the subsequent report. We will send a summary of the research to you at the end of the study if you request this. If you provide an email address for this purpose, it will not be linked with your survey responses.

Who can I contact if I have any questions or concerns?

If you have any questions about the research, please contact Hannah, Luna-May, Sam, Hunter and TJ at ucengagingwithyouth@gmail.com or contact our supervisor Dr Kate Prendergast kate.prendergast@canterbury.ac.nz or 03 369 0467 with any concerns.

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have concerns or complaints about this research, please contact the Chair of the HREC at human-ethics@canterbury.ac.nz.

What happens next?

If you would like a PDF version of this information sheet, please email us at the email address above (ucengagingwithyouth@gmail.com)

Please read the following statement of consent and start the survey below.

Statement of consent

I have read the study information and understand what is involved in participating. By completing the survey and submitting my responses, I consent to participants

Appendix B: Focus Group Information Sheet

School of Earth and Environment
T: +64 3 369 0467
kate.prendergast@canterbury.ac.nz
6/09/21



Engaging with young people on climate change. Information Sheet for participants

Kia ora,

You are invited to participate in a research study about engaging young people (aged 17-25 years) on climate change. This study is being done by a group of geography students from the University of Canterbury ITe Whare Wānanga o Waitaha. The study is being carried out as a requirement for our GEOG309 course 'Research for resilient Environments and Communities'.

What is the purpose of this research?

This research aims to identify the key messages and mechanisms that encourage young people (aged 17-25 years) to be more climate active. We are interested in finding out the different messages and mechanisms that entice environment-friendly change in young people. The information from this study can help potential end users target and engage with young people more effectively.

Why have you received this invitation?

We invite you to participate in this research by being part of a focus group. You have been asked to participate because you have responded to a request for participation and most likely in our targeted age demographic for our study. It is also possible you have been referred to this focus group opportunity by people who thought you may be interested in it.

Importantly, your participation is voluntary, which means you do not have to partake in the focus group. If you choose not to participate there are no consequences, for example it will not affect your relationship with any of our group members or the University of Canterbury or Environment Canterbury.

What is involved in participating?

If you choose to take part in this research, you will be asked to participate in a focus group. This focus group will involve you and others meeting to discuss your thoughts on climate change engagement. The focus group will take place face-to-face. We will contact you and the other participants to arrange a suitable time and location.

The focus group will involve the researchers introducing themselves. We will explain how the group will work and answer any questions you may have. Then, we will facilitate a group discussion about the topic. It is estimated that the focus group will take up to 45 minutes.

Reviewing the focus group discussion

We will ask you to review and confirm a summary of the focus group discussion. This will be emailed to you within one week of the focus group. We will ask you to provide confirmation of the accuracy of the

discussion or advise of any amendments or additions via email within five days. You do not have to review this summary if you do not want to.

Will the focus group be recorded?

The focus group will be audio-recorded using a portable recorder. Written notes will also be taken. The recording will be used solely by us, as a reminder of certain points made during the discussion. We will transfer the audio recording to a password-protected file on UC's computer network and delete from the recording device as soon as practical.

Are there any potential benefits from taking part in this research?

We do not expect any direct benefits from you personally being a part of this focus group. However, the information gathered will potentially benefit yourself and other young people in the future, if our community partner (Environment Canterbury) implement our findings. Our research may help promote climate change campaigns in Canterbury.

Are there any potential risks involved in this research?

We are not aware of any risks to participants in the research. However, if you find any particular questions sensitive to you, just let us know and we can accommodate your concerns and exclude this part from the recording if requested.

What if you change your mind during or after the study?

You are free to withdraw at any time. To do this, please feel free to leave the group at any point, or let the researchers know after the group has finished that you wish to withdraw. We will remove any information you have provided up to that point from the data set, if it is still possible (withdrawal will not be possible after the submission of our final report on the 18th October, 2021). Please note that the nature of focus group discussions makes it difficult to remove data, or the influence of your contribution. However, every effort will be made to do so.

What will happen to the information you provide?

We will ask each focus group participant to agree not to share information about the group with people outside the focus group. If you are unable to agree to this, you will not be able to participate. All of the researchers will keep all participants' identities, and the information they provide during the focus group, confidential.

To ensure your identity is not known to anyone outside the research team, we will store signed consent forms separately from the focus group transcript and notes. Your name will be changed to a pseudonym (a fake name) whenever it appears in the transcript or report. We will store the file that links your real name and your pseudonym individually on a password-protected, secure device.

All study data will be stored in password-protected files on the University of Canterbury computer network.

All data will be destroyed immediately after completion of the study. Dr Kate Prendergast will be responsible for making sure that your data is only used by members of the research team for the purposes mentioned in this information sheet.

How will the results of the study be published?

The results of this survey will be published in an undergraduate project report, which you can access on the [Geography Community Engagement Repository](#) from November 2021. You will not be identifiable in the results of the survey or the subsequent report. We will send a summary of the research to you at the end of the study if you request this.

Who can you contact if you have any questions or concerns?

If you have any questions about the research, please contact Hannah, Luna-May, Sam, Hunter and TJ at ucengagingwithyouth@gmail.com or their supervisor Dr Kate Prendergast (kate.prendergast@canterbury.ac.nz).

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have concerns or complaints about this research, please contact the Chair of the HREC at human-ethics@canterbury.ac.nz.

What happens next?

If you would like to participate in a focus group please complete the consent form and return it to us by email (ucengagingwithyouth@gmail.com)

Appendix C: Focus Group Consent Form

School of Earth and Environment
T: +64 3 369 0467
kate.prendergast@canterbury.ac.nz
6/09/21



Engaging with young people on climate change. Consent Form for Participants

- I have been given a full explanation of this project and have had the opportunity to ask questions.
- I understand what is required of me if I agree to take part in the research.
- I understand that participation is voluntary and I may withdraw at any time without consequences. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain possible.
- I understand that any information or opinions I provide will be kept confidential to the researchers. I understand that any published or reported results will not identify me.
- I understand that all data collected for the study will be kept in locked and secure facilities and in password protected electronic form. I understand the data will be destroyed on completion of the project.
- I agree to being audio recorded. I understand how this recording will be stored and used.
- I understand that I can contact the researcher's Hannah Pearson, Luna-May Hart, Sam Netherclift, Hunter Pethers-Boak, and Thomas Jansen at ucengagingwithyouth@gmail.com or their supervisor Dr Kate Prendergast (kate.prendergast@canterbury.ac.nz) for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Research Ethics Committee at human-ethics@canterbury.ac.nz.
- I would like a summary of the results of the project.
- By signing below, I agree to participate in this research project.

Name: _____ Signed: _____ Date: _____

Email address (for report of findings, if applicable): _____

Appendix D: Survey

GEOG309 - Youth Climate Engagement

Start of Block: Section 1 - About me

School of Earth and Environment
T: +64 3 369 0467
kate.prendergast@canterbury.ac.nz
6/09/21

Engaging with young people on climate change. Information Sheet for participants

Kia ora,

You are invited to participate in a research study about engaging young people (people aged 17-25) on climate change. This study is being done by a group of third year geography students from the University of Canterbury | Te Whare Wānanga o Waitaha.

What is the purpose of this research?

This research aims to identify the key messages and mechanisms that encourage young people (people aged 17-25) to be more climate active. We are interested in finding out the different messages and approaches that entice environment-friendly change in young people. The information from this study will help identify ways to engage with young people about climate change more effectively.

Why have you received this invitation?

We're inviting young people aged 17 to 25 years, who live in Canterbury to participate in an online survey. You have been asked to participate because you responded to a request for participation or you have been referred to this online survey by people who thought you may be interested in it.

Your participation is voluntary, which means you do not have to partake in the online survey. If you choose not to participate there are no consequences, for example it will not affect your relationship with any of our group members or the University of Canterbury or Environment Canterbury.

What is involved in participating?

If you choose to take part in this research, you will complete an online survey. The survey involves answering some general questions about yourself, followed by questions about climate change behaviours, attitudes and communication. Completing the survey should take between 5-10 minutes.

Are there any potential benefits from taking part in this research?

We do not expect any direct benefits from you personally completing this survey. However, the information gathered will potentially benefit yourself and other young people in the future. Our research may help promote climate change campaigns in Canterbury.

Are there any potential risks involved in this research?

We are not aware of any risks to participants in the research. However, if you find any particular questions sensitive to you, there is no pressure to finish the survey.

What if you change your mind during or after the study?

You are free to withdraw at any time. To do this, simply close your browser window that the survey is presented on. Any information you have entered up to that point will be deleted from the data set. As this is an anonymous survey it will not be possible to withdraw your information after you have completed the survey.

What will happen to the information you provide?

All data will be anonymous. We will not be able to identify you or link your identity with any responses you provide. All data will be stored on the password protected Qualtrics network.

The data provided will only be used in this research project (not externally). Dr Kate Prendergast will be responsible for making sure that only members of the research team use your data for the purposes mentioned in this information sheet.

Will the results of the study be published?

The results of this survey will be published in an undergraduate project report, which you can access on the Geography Community Engagement Repository (<https://www.canterbury.ac.nz/science/schools-and-departments/earth-and-environment/outreach-and-engagement/geography-community-engagement-repository/>) from November 2021. You will not be identifiable in the results of the survey or the subsequent report. We will send a summary of the research to you at the end of the study if you request this. If you provide an email address for this purpose, it will not be linked with your survey responses.

Who can I contact if I have any questions or concerns? If you have any questions about the research, please contact Hannah, Luna-May, Sam, Hunter and TJ at ucengagingwithyouth@gmail.com or contact our supervisor Dr Kate Prendergast kate.prendergast@canterbury.ac.nz or 03 369 0467 with any concerns.

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have concerns or complaints about this research, please contact the Chair of the HREC at human-ethics@canterbury.ac.nz.

What happens next?

If you would like a PDF version of this information sheet, please email us at the email address above (ucengagingwithyouth@gmail.com)

Please read the following statement of consent and start the survey below.

Statement of consent

I have read the study information and understand what is involved in participating. By completing the survey and submitting my responses, I consent to participate.

Yes (1)

No (2)

Skip To: End of Survey If Statement of consent... = No

Page Break

Do you live in Canterbury? Select one.

- Yes (1)
- No (2)

Skip To: End of Survey If Do you live in Canterbury? Select one. = No

Page Break

Q2 What is your age? Select one.

- Under 17 (1)
- 17 (2)
- 18 (3)
- 19 (4)
- 20 (5)
- 21 (6)
- 22 (7)
- 23 (8)
- 24 (9)
- 25 (10)
- Over 25 (11)

Skip To: End of Survey If What is your age? Select one. = Under 17

Skip To: End of Survey If What is your age? Select one. = Over 25

Page Break

Q3 What is your gender identity? Select one.

- Male/Tāne (1)
- Female/Wāhine (2)
- Non-binary/Ira kore (3)
- Transgender/Irawhiti (4)
- Intersex (5)
- Gender diverse/Ira tāngata kōwhiri kore (6)
- Prefer to self-describe: (7) _____
-

Page Break

Q4 What ethnicity do you identify with? Select all that apply.

- NZ pākehā (1)
- Māori (2)
- Pacific peoples (3)
- European (4)
- Asian (5)
- Middle Eastern (6)
- Latin American (7)
- African (8)
- Other ethnicity, please specify: (9) _____
-

Q5 What is your main occupation? Select one

- High school student (1)
 - Tertiary student (e.g., student at university or polytechnic) (2)
 - Part-time worker (3)
 - Full-time worker (4)
 - Unemployed (5)
 - Other, please specify: (6) _____
-

Display This Question:

If What is your main occupation? Select one = Tertiary student (e.g., student at university or polytechnic)

Q6 If a tertiary student, do you study climate related/environmental courses?

- Yes (1)
 - No (2)
-

Q7 How important are each of the following to your identity?

| | Not at all important (1) | Slightly important (2) | Moderately important (3) | Important (4) | Very important (5) |
|------------------------------------|--------------------------|------------------------|--------------------------|-----------------------|-----------------------|
| Being a New Zealander (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Being a Cantabrian (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My ethnicity or cultural group (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My religion (4) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My political affiliation (5) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Q34 Please indicate how likely it is that the following groups will influence you to join activities to protect the environment?

| | Very unlikely (1) | Unlikely (2) | Neutral (3) | Likely (4) | Very likely (5) | Not applicable (6) |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Other New Zealanders (1) | <input type="radio"/> |
| Other Cantabrians (2) | <input type="radio"/> |
| My ethnic or cultural group (3) | <input type="radio"/> |
| My religious group (4) | <input type="radio"/> |
| My political affiliation (5) | <input type="radio"/> |

End of Block: Section 1 - About me

Start of Block: Section 2: Climate change attitudes and behaviours

Q8 Compared with other young people, my knowledge about climate change is? Select one.

- Very low (1)
 - Below average (2)
 - Average (3)
 - Above average (4)
 - Very high (5)
-

Q9 Which emotion best describes how you are feeling about climate change and the future?

- Helpless (1)
 - Anxious (2)
 - Indifferent (3)
 - Hopeful (4)
 - Confident (5)
-

Q10 What behaviour type do you most identify with?

- Optimistic (hopeful and confident about the future) (1)
 - Pessimistic (tends to see the worst aspects of things) (2)
 - Trusting (feelings of security and belief that other people do good) (3)
 - Envious (a desire to have the same and do the same as someone else) (4)
-

Q11 As an **individual/on your own** how likely are you to engage in climate action? (e.g., climate marches, beach clean-ups, tree planting, opting for active and public transport)

- Very unlikely (1)
 - Unlikely (2)
 - Neutral (3)
 - Likely (4)
 - Very likely (5)
-

Q12 As a **group** how likely are you to engage in climate action? (e.g., climate marches, beach clean-ups, tree planting, opting for active and public transport)

- Very unlikely (1)
 - Unlikely (2)
 - Neutral (3)
 - Likely (4)
 - Very likely (5)
-

Q13 Do the people important to you expect you to be climate active?

- Yes (1)
 - No (2)
 - Unsure (3)
-

Q14 Do you expect people important to you to be climate active?

- Yes (1)
 - No (2)
 - Unsure (3)
-

Q15 How much of your everyday behaviour (e.g., transport choices, diet, energy consumption consumer choices etc) do you think is climate-friendly?

- None of my behaviour (1)
 - Very little of my behaviour (2)
 - Some of my behaviour (3)
 - Most of my behaviour (4)
 - All of my behaviour (5)
-

Q16 How responsible are **you** for mitigating/reducing climate change?

- Not at all (1)
 - Very little (2)
 - Neutral (3)
 - Somewhat responsible (4)
 - Very responsible (5)
-

Q17 How responsible is the **collective/community** for mitigating/reducing climate change?

- Not at all (1)
 - Very little (2)
 - Neutral (3)
 - Somewhat responsible (4)
 - Very responsible (5)
-

Q18 How frequently does the issue of climate change come up in conversation with your **family**?

- Never (1)
 - Very rarely (2)
 - Rarely (3)
 - Occasionally (4)
 - Frequently (5)
 - Very frequently (6)
-

Q19 How frequently does the issue of climate change come up in conversation with your **friends**?

- Never (1)
 - Very rarely (2)
 - Rarely (3)
 - Occasionally (4)
 - Frequently (5)
 - Very frequently (6)
-

Q20 What motivates you or would motivate you to take climate-friendly behaviour or participate in climate action such as climate-strikes, beach clean-ups, tree planting etc? **Choose the option that is most important to you.**

- Concern for the environment, biodiversity and/or the planet itself (1)
 - Concern for family/whanau and/or my potential future children (2)
 - Concern for future generations in general (3)
 - Concern for currently vulnerable communities (4)
 - The opportunity to be part of a movement (5)
 - The chance to simply have my voice heard (e.g., the attention) (6)
 - Other motivation, please specify: (7)
-

End of Block: Section 2: Climate change attitudes and behaviours

Start of Block: Section 3 - Climate change communication

Q22 How much time do you spend on social media per day on average?

- Less than 1hr (1)
 - 1-2 hours (2)
 - 2-3 hours (3)
 - 3-4 hours (4)
 - 4-5 hours (5)
 - 5-6 hours (6)
 - 6-7 hours (7)
 - More than 7 hours (8)
-

Q23 Rank these social media platforms from most used (1) to least used (5)

(Drag each option into your ranked order)

- _____ Facebook (Excluding messenger) (1)
 - _____ Instagram (2)
 - _____ Snapchat (3)
 - _____ Twitter (4)
 - _____ Youtube (5)
-

Q24 How likely are you to follow a climate change related social media page/account?

- Very unlikely (1)
- Unlikely (2)
- Neutral (3)
- Likely (4)
- Very likely (5)

Q25 Do you follow a climate change related social media page/account?

- Yes (1)
- No (2)
-

Q26 What is your primary source of climate change related information?

- News (via TV) (1)
- News websites (e.g., Stuff etc) (2)
- Credible social media sources (e.g official government pages) (3)
- Social media (e.g., influencers and celebrities etc) (4)
- Friends and family (5)
- Other, please specify: (6) _____
-

Q27 What type of media content do you find most engaging?

- Short media clips (less than 1 minute) (1)
- Longer videos (more than 1 minute) (2)
- Facebook posts with photos/images (3)
- Instagram stories (4)
- Text posts (e.g., Tweets) (5)
- Interactive quiz (6)
- Other, please specify: (7) _____
-

Page Break

Q28 Would you be more climate conscious if a well-known public figure openly endorsed being more climate active in the community?

- Very unlikely (1)
 - Unlikely (2)
 - Neutral (3)
 - Likely (4)
 - Very likely (5)
-

Q29 Does anyone you look up to (e.g., parent or adult figure) live a climate-friendly lifestyle?

- Yes (1)
 - No (2)
 - Unsure (3)
-

Q30 What type of role-model would most likely influence you to be more climate active?

- Sports public figures (1)
 - Political public figures (2)
 - Religious public figures (3)
 - Celebrities (4)
 - Parental/personal educational figures (5)
 - People my own age (6)
-

Q31 What type of climate change content would you find most engaging?

- Positive and inspirational (e.g., innovative climate friendly ideas) (1)
 - People's documented, positive actions towards climate change (e.g., café changing to compostable cups or photo of young people at climate marches) (2)
 - Negative impacts on the environment (e.g., Tasman Glacier melting) (3)
 - Negative impacts on people (e.g., coastal flooding in Bangladesh) (4)
 - Negative impacts on animals (e.g., ice caps melting killing polar bears) (5)
-

Q32 Rank from most effective (1) to least effective (4) the type of advertisement language you find most engaging.

(Drag each option into your ranked order)

- _____ Slang – “Climate change is cooked! Let's change our habits now' (1)
 - _____ Te Reo and other languages – ‘E ngau ana te huri o te āhurangi ki tō tātou noho ora' (2)
 - _____ English language – “New Zealand, we are experiencing a climate emergency, show your support and make effective change' (3)
 - _____ Scientific language – “Over the ~105 years that an exo-Earth's eccentricity Milankovitch cycle might last, a globally frozen planet that is comparably geologically active to the Earth might release ~0.01 bars of CO₂ due to volcanism” (4)
-

Q33 Which narrative engages you most in climate change and entices you to make change? Select one.

note this is the final question!

- Here and now approach – ‘Climate change is happening Aotearoa! We need to reduce our carbon footprint. We can do this by switching to active and public transport, reducing our meat intake, and making smarter energy choices. Be part of a safe and green environment!’ (1)
- Everyday concerns about the things we love approach – ‘Climate change is impacting our precious resources and taonga. We need to manage the things we can control to keep our streets healthy and free from pollution. Climate change effects your future more than you think! Please protect your family and friends from increased weather events and finite resources.’ (2)
- Persuasive and factual approach – ‘Transport emissions are the fastest growing source of greenhouse gas emissions in Aotearoa, they contribute 21% of all emissions produced in NZ. We need to embrace policy that makes public and active transport a more convenient and viable form

of transport. Making this shift will entice change, do your bit – choose environment friendly transport.’ (3)

Moral / Social Justice issue approach – ‘Developed countries are responsible for 79% of carbon emissions in the earth’s atmosphere, whilst the people most vulnerable are those living in small islands, coastal areas, megacities and those situated towards the poles. This is not fair; we all need to do our part to reduce the impact we are making. It’s our moral duty to support our decision-makers in reducing the risks of climate change through effective climate policy’ (4)

Page Break

Q35 Thank you so much for taking part in this study. We appreciate your time and efforts. If you are interested in our results, we can send you our report upon completion. Just put your email in the following space:

End of Block: Section 3 - Climate change communication

Appendix E: Focus Group Questions

Both the Students / Worker focus group questions are the same and touch on each of our sub-topics.

The rangatahi Māori questions are more specific to Māori but do also relate to our subtopics.

Focus group questions - rangatahi Māori Students (Sam & Luna-May)

- 1) What do you think is most important for young Māori regarding climate change impacts? E.g., future generations, whenua, taonga species, all of the above?
- 2) What are some of the challenges you identify with the issue of climate change?
- 3) Who are some people in your life who you would consider to be role models? (parents, teachers etc) and why?
- 4) How motivated are you by seeing other Māori and specifically young people being climate active?
- 5) Do you think Te reo is used enough in environmental social media content? (Specifically in NZ contexts)
 - Water legislation example
 - Concepts explained in te reo e.g. Kaitiakitanga
- 6) Do you know of any climate change mitigation efforts in the Māori community? And what type of efforts/solutions would you like to see in the future.
- 7) Are current climate change resources failing to represent Māori solutions/Mātauranga Māori?
- 8) Do you feel that there is an avenue for rangatahi Māori voices?
 - Open with karakia and bless the kai.
 - Have to create an environment where whakatauki and pūrākau are shared.
 - How to communicate climate change issues with Māori?
 - Open to critique; change things if we get things wrong.

Focus group questions - Students (TJ & Hunter)

- 1) What are some of the challenges you identify with the issue of climate change?
- 2) Of those issues, what do you think matters most to young people when it comes to climate change? i.e., is it the environment, future generations, currently vulnerable communities, the opportunities CC presents... Why do you think that matter most?

- 3) What tools (e.g. quizzes, social media messages) do you think would be most effective at promoting environment-friendly behaviour change in young people?
- 4) Do you feel supported by current methods to be climate active / are there climate change resources readily available to facilitate behavioural change? Do you feel that there is currently an avenue for young people's voices in the climate discussion?
- 5) Which social media platforms do you use most often, and why?
- 6) Thinking about social media (e.g. Facebook and Instagram), what sorts of posts do you find most engaging and why?
- 7) How much climate change related social media have you seen recently (within the past month)? And on what platforms? What did you like / not like about the messages?
- 8) How could social media play a part in engaging people with climate action and climate change discussions? i.e., what would you want to see / should be seen?
- 9) Do you think role models can play a part in promoting climate change? Why / why not?
- 10) What kind of role model would encourage you to take climate action? How and why? Can be specific e.g., sports celebrity, parental, political, religious, someone own age
- 11) Thinking about climate change communication, what messages have you heard? What do you like / not like about these messages? Why?
- 12) What climate change narratives do you think young people find most interesting/engaging? Why?
*
- 13) What do you think your role is (if any) as an *individual*, in addressing climate change?
- 14) How important do you think a sense of community is for taking climate action, or environmental action?

**Print narratives for discussion*

Focus group questions - Workers (Hannah & Luna-May)

- 1) What are some of the challenges you identify with the issue of climate change?
- 2) Of those issues, what do you think matters most to young people when it comes to climate change? i.e., is it the environment, future generations, currently vulnerable communities, the opportunities CC presents... Why do you think that matter most?
- 3) What tools (e.g. quizzes, social media messages) do you think would be most effective at promoting environment-friendly behaviour change in young people?

- 4) Do you feel supported by current methods to be climate active / are there climate change resources readily available to facilitate behavioural change? Do you feel that there is currently an avenue for young people's voices in the climate discussion?
- 5) Which social media platforms do you use most often, and why?
- 6) Thinking about social media (e.g. Facebook and Instagram) what sorts of posts do you find most engaging and why?
- 7) How much climate change related social media have you seen recently (within the past month)? And on what platforms? What did you like / not like about the messages?
- 8) How could social media play a part in engaging people with climate action and climate change discussions? i.e., what would you want to see/should be seen?
- 9) Do you think role models can play a part in promoting climate change? Why/why not?
- 10) What kind of role model would encourage you to take climate action? How and why? Can be specific e.g., sports celebrity, parental, political, religious, someone own age
- 11) Thinking about climate change communication, what messages have you heard? What do you like / not like about these messages? Why?
- 12) What climate change narratives do you think young people find most interesting/engaging? Why?
*
- 13) What do you think your role is (if any) as an *individual*, in addressing climate change?
- 14) How important do you think a sense of community is for taking climate action, or environmental action?

**Print narratives for discussion*

Appendix F: Māori Consultation Form

| | |
|---|---|
| Date: 03/09/2021 | College/Department: Te Rāngai Pūtaiao College of Science |
| <p>Principal Investigator: Sam Netherclift, Hannah Pearson, Hunter Pethers-Boak, Luna-May Hart, Thomas Jansen</p> <p>Associate Investigators: Kate Prendergast (tutor/academic support for this project)</p> <p>Cultural Advisors, if any:</p> <p>Please note if you have sought advice from NTRC, or other mana whenua representatives:</p> | |
| <p>Project Title: <i>Engaging with young people on climate change</i></p> | |
| <p>Concise description in lay terms of the proposed project, including brief methodology (up to 1 page):</p> <p>This project is for the undergraduate course GEOG309. It is a 10 week project, with an expected written group report outlining our findings, of approximately 6000 words.</p> <p>Our project is about the process of engaging with young people on climate change, as young people’s voices are incredibly important in this space. Our community partner is Environment Canterbury, who will (hopefully) use our research to contribute to their new campaign ‘It’s Time, Canterbury’ which is about promoting climate change discussion and understandings of the effects of climate change in the Canterbury region. Our research question is: ‘What are the key messages and mechanisms that encourage young people (people aged 17-25) to be more climate active?’</p> <p>We plan to use a convenience sampling, snowball method to recruit young people to undertake our survey and focus group(s). In the survey, we will ask questions regarding messages/mechanisms that might engage young people in climate change discussions or action, such as role models, or the use of social media. The focus group(s) will be similar in content, but we hope it will help us to get a deeper understanding of young peoples’ perspectives, especially Māori students’.</p> | |
| <p>Does the proposed research involve any of the following? Please underline.</p> <ul style="list-style-type: none"> • <u>Significant Māori content</u> • Access to Māori sites • Sampling of native flora/fauna • <u>Culturally sensitive material/knowledge</u> • <u>Māori involvement as participants or subjects</u> • <u>Research where Māori data is sought and analysed</u> • <u>Research that will impact on Māori</u> | |

If you have underlined any of the above, please explain in more detail:Significant Māori content

Our research will include knowledge shared by our rangatahi Māori participants in the survey and focus group. Our questions in the focus groups prompt a discussion about te ao Māori in relation to climate change, which may include reference to tikanga, whakapapa, whenua, iwi Māori and taonga. The Māori content within our research will serve to strengthen communities by the promotion of Māori participation and perspectives in ECan's campaign.

In terms of recognition, the rangatahi Māori focus group will be acknowledged in our final report with a section dedicated to Māori perspectives, although the participants will not be named due to respect for privacy. We are pursuing the possibility of finding a suitable koha for the participants. Also, any mana whenua and iwi documents referenced in our report will be cited appropriately.

Culturally sensitive material/knowledge

As mentioned above, the questions in the focus group will prompt a discussion about climate change and te ao Māori which may include reference to culturally sensitive knowledge and references relating to tikanga, whakapapa, whenua, iwi Māori and taonga.

The participants will be informed before the start of the focus group that they have the option of refraining from answering if they prefer not to share certain information.

Any information/material/knowledge which is culturally sensitive will be utilised in a culturally responsible way, and we will ensure this by communicating with our kaiārahi Abby Suszko for support.

Māori involvement as participants or subjects

We intend to send our survey to rangatahi Māori participants, and undertake one focus group with ākonga Māori as a specifically recruited cohort. We will identify Māori participants in our survey through our ethnicity question. Rangatahi Māori participants will be recruited for our focus group through the Te Waka Pākākano student networks. Our kaiārahi Abby Suszko has offered to facilitate this.

For our focus groups, we intend to implement culturally-responsive procedures, including: proper greetings, mihi, whakawhanaungatanga, the provision of kai, and if possible a koha. Usual ethics procedures will also be used, such as anonymity, the ability to read their (focus group) transcript before data is used, and the ability to see the results of our research once we finish the study.

Research where Māori data is sought and analysed

We will be accessing qualitative Māori data regarding climate change engagement, through the survey and focus group discussions. This data will be anonymous. In our report we will have a section dedicated to analysing the rangatahi Māori perspectives conveyed in the survey and focus groups. We are seeking rangatahi Māori for a focus group as their perspective is considered great value to us and our research.

We will provide the opportunity for reporting back to participants who would like to be kept updated. Survey participants can choose to add their email to an emailing list, and we will also give focus group participants the option to be kept in contact.

Research that will impact on Māori

Our findings will have an impact on Māori as our results on what messages and mechanisms motivate rangatahi Māori to be more climate active, will be passed on to our community partner Environment Canterbury. Environment Canterbury may choose to implement our findings into their climate campaign, which may include Māori perspectives, te ao Māori mechanisms and te reo Māori messages. This will directly affect Māori as it will be using their data and knowledge. Moreover, if implemented the climate campaign should have Māori representation and encourage mātauranga Māori solutions. This common goal to mitigate climate change in an effort to protect the land, its resources and present and future generations may lead to further collaboration with Māori on climate related issues.