New Jersey Teachers' Perspectives on the Implementation of K-12 Climate Change Standards

Initial Findings from Surveys in June and December 2022

Lauren Madden

The College of New Jersey, School of Education
Professor of Elementary and Early Childhood Education

Julia Turner

SubjectToClimate
Senior Research Associate

Eileen Heddy

The College of New Jersey, School of Education
Director of Support for Teacher Education Programs

Samantha Lindsay

The College of New Jersey, School of Education
Graduate Assistant

Margaret Wang

SubjectToClimate
Chief Operating Officer

Isabelle Pardew

SubjectToClimate
Research and Operations Associate

SUBJECTto CLIMATE

TABLE OF CONTENTS

Main Takeaways

Insufficient Integration of Climate Change into Curriculum

There is an overall lack of confidence that school curricula sufficiently address climate change.

Lack of Professional Development

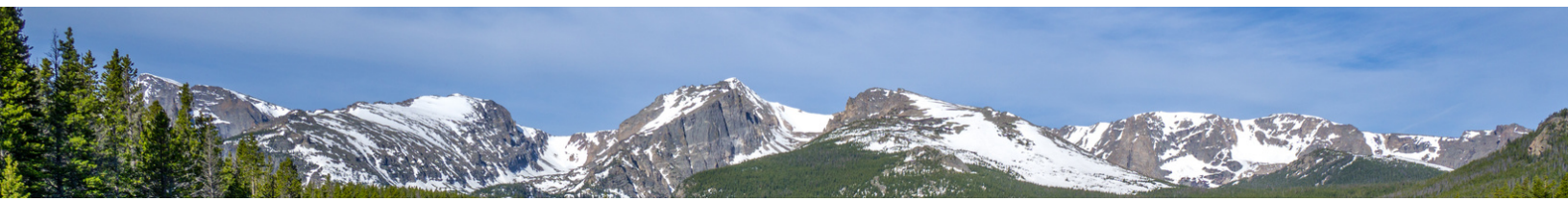
There is not enough professional development on climate change education, and most respondents believed that lack of expertise and training is the primary reason that climate change is not taught more frequently.

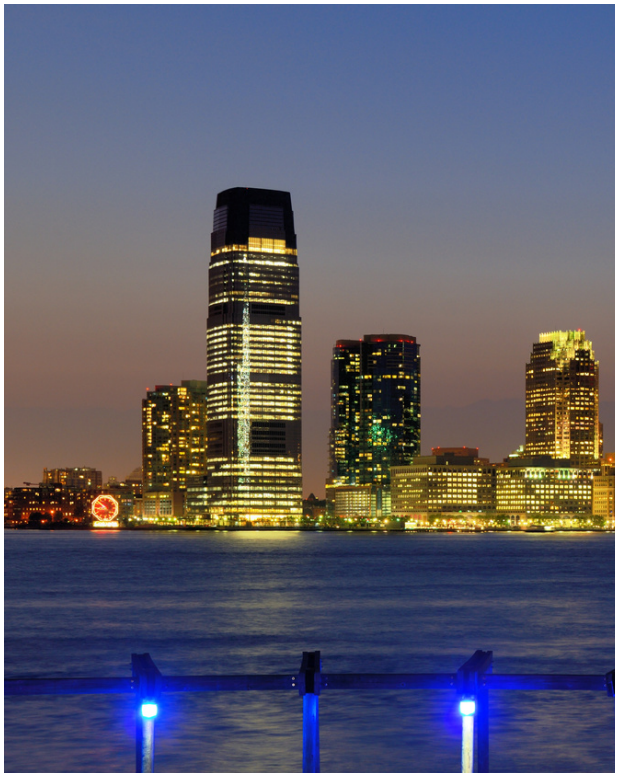
Uncertainty Regarding Interdisciplinary Climate Change Education

There is uncertainty of how to integrate climate change education in an interdisciplinary manner, and educators are unsure how climate change relates to what they're teaching.

Efficacy of the New Jersey Climate Change Education Hub

Hub users demonstrated higher confidence in their preparedness to implement the climate change education standards, and reported higher levels of professional development. By the second survey, 91% of Hub users integrated climate change into their curricula at least once.





New Jersey Climate Change Education

In September 2022, New Jersey became the first state to adopt updated state student learning standards that included comprehensive climate change standards across grade levels and content areas. In an effort to provide a snapshot of teachers' preparedness to integrate climate change into their instructional practices both before and after implementation of these standards, The College of New Jersey (TCNJ) sent a survey to teachers across the state in June 2022 and December 2022. These timepoints were selected in order to determine the differences in levels of educator preparedness just prior to the implementation of the standards versus several months after their release.

The Survey

Teachers were recruited for participation in the survey via emails on professional listservs. First, teachers employed at schools within TCNJ's Professional Development Schools Network (PDSN) were contacted. The PDSN is a network of 24 districts—all within a 30 mile radius of TCNJ—that offer field experiences for teacher candidates and feedback on various programs. TCNJ works to create mutually beneficial relationships with these districts by providing professional development, a tuition discount and other benefits as part of their membership. After being sent to the PDSN district administrators and asking them to share it with their staff, the survey was distributed more broadly throughout the state using an email list maintained by TCNJ's School of Education. This list contains contact information for past participants in professional development sessions offered by the School of Education. The same procedure was followed for the June and December survey administrations.

The survey first asked demographic questions regarding school district, teaching assignment, subject, and grade level taught. Then, respondents were asked to assess their familiarity with the climate change education standards, confidence in teaching about climate change, current teaching practices, professional development experience, and resources used. Next, the respondents were asked a series of questions about their school and community readiness to address climate change, modeled on a similar study administered amongst teachers throughout the European Union in May–June 2020.[1] Finally, teachers were given space to provide further questions and comments.

1. "Survey on Climate Education." School Education Gateway, July 31, 2020.

Survey Respondents

In the June 2022 administration, 51 individuals responded to the survey from at least 23 different school districts.[2] Just over 80% of these individuals indicated that they were teachers, with the remaining respondents reporting they worked as administrators, instructional coaches, or other school professionals such as speech pathologists. In the December 2022 administration, 71 individuals responded, representing at least 35 different school districts. Just under 80% of respondents indicated that they worked as teachers, with a similar distribution of other school professionals represented among the pool of responses.

The respondents in both survey administrations worked with students across all grade levels and content areas, as displayed in the tables below. It should be noted that respondents had the option to indicate more than one grade band or content area, thus percent totals are greater than 100 in each category.

Grade Levels Taught

The most common grade band represented in the June 2022 survey was 9–12, while the December 2022 survey had the highest representation from the 6–8 grade band. Overall, more than 73% of both surveys' respondents teach grades 6–12, with the least amount of educators in primary grade bands.

Table 1

Grade Levels Taught	June 2022	December 2022
K–2	23.5%	22.5%
3–5	27.5%	33.8%
6–8	33.3%	46.5%
9–12	40.2%	29.6%
K–12 or other*	2%	9.8%

* Respondents provided a different grade range or indicated they worked in a supporting role, as a preschool teacher, or instructional coach.

2. During both administrations, several respondents did not provide a district.

Subjects Taught

As might be expected, science teachers comprised the highest percentage of respondents. However, mathematics and English language arts were also substantially represented.

Table 2

Subjects Taught	June 2022	December 2022
Science	48%	55.1%
Mathematics	38%	37.7%
ELA	32%	44.9%
Social Studies	24%	34.8%
Computer Science & Design	14%	18.8%
Career Readiness	12%	14.5%
Comprehensive Health & PE	8%	10.1%
Visual & Performing Arts	4%	11.6%
World Languages	4%	8.7%
Other*	12%	12.6%

* Other areas included instructional coaching, preschool, physical education, school counseling, STEM, English as a Second Language, or library skills.

The subject levels with lower percentages of representation included: career readiness, physical education, visual arts, and world languages.

Preparedness to Integrate Climate Change Education into the Curriculum

The respondents were asked to indicate—using a 5-point Likert-type scale (with 1 being low and 5 being high)—their familiarity with the climate change standards, familiarity with the New Jersey Department of Education's (NJ DOE's) resources on climate change standards, and confidence integrating climate change into their instruction. To discern differences between the June and December 2022 administrations, we identified mean and median responses and conducted t-tests to measure significance. These data are displayed in the table below.

Table 3

	Mean		Median		Variance		t-test
	June 2022	Dec 2022	June 2022	Dec 2022	June 2022	Dec 2022	
Familiarity with climate change standards	2.75	2.78	3	3	1.87	1.63	0.904
Familiarity with NJ DOE webpage on standards	2.27	2.46	2	2	1.52	1.67	0.409
Confidence integrating climate change into instruction	3.16	3.10	3	3	2.17	1.49	0.818

Current Integration of Climate Change into Instruction

The respondents were asked to report how often they integrate climate change into their instruction in the June and December surveys. In both surveys, the most common implementation of climate change education was on an occasional basis, as it comes up in class discussion.

Table 4

How often do you integrate climate change into your curriculum?

	June 2022	December 2022
Throughout the entire course	13.7%	9.9%
Several lessons or a unit	13.7%	16.9%
A few lessons during the year	27.5%	28.2%
Occasionally in class discussions	31.4%	29.6%
None	13.7%	15.5%

Professional Learning

Amount

The surveys asked teachers how much professional development they had with regard to climate change education. They were also asked the format in which the professional development occurred. The majority of respondents reported having little to no professional development on the subject—in both surveys, less than 8% of respondents reported taking at least one course or unit at the undergraduate or graduate level.

Table 5

How much (if any) professional learning have you pursued on teaching climate change?

	June 2022	December 2022
Little to none	52.9%	57.7%
Few hours to a half day	27.5%	9.9%
Series of training	9.8%	22.5%
Full day	3.9%	1.4%
Module or course unit at undergraduate or graduate level	2%	1.4%
Course at the undergraduate level	2%	4.2%
Multiple courses at the undergraduate or graduate level	2%	2.8%

Over the total time period, there was a notable increase in the amount of educators who had a series of professional development training. This trend is perhaps reflected in the decrease of respondents indicating they had a few hours to a half day of training, suggesting that teachers may have gained access to more resources.

Over 50% of respondents reported having little to no professional development on the subject.

Format

Respondents were asked to describe their professional learning experience in terms of its delivery, e.g., in-person or online, self-paced or taught. Most respondents reported their experience was asynchronous and self-paced.

Table 6

What format did your climate change professional learning take?

	June 2022	December 2022
Asynchronous self-paced	37.3%	29.6%
Asynchronous webinars	11.8%	16.9%
Synchronous online webinars or meetings	15.7%	18.3%
In-person workshops, conferences or lectures through the school district	15.7%	15.5%
In person workshops, conferences, or lectures through informal learning environments	11.8%	15.5%
Courses at an institution of higher education	3.9%	14.1%
Not applicable	39.2%	39.4%

Sources

The survey asked teachers how they have found or adapted curricular resources for teaching about climate change in the 2022-2023 academic year. They were allowed to select multiple responses. Overall, most respondents reported using the NJ DOE's resources or media sources such as National Geographic or PBS. Subsequent sections include an analysis of the respondents who used the New Jersey Climate Change Education Hub.[3]

Table 7

Which source(s) will you use (or have you already used) to find or adapt curricular resources for teaching about climate change in the 2022-23 academic year?

	June 2022	December 2022*
NJDOE instructional resources	65.3%	62.7%
Existing instructional materials from previous years	38.8%	41.8%
Resources from professional groups related to the disciplines I teach	42.9%	37.3%
NJ Climate Change Education Hub	40.8%	35.8%
Media sources such as National Geographic or PBS	57.1%	59.7%
Teacher-created materials such as TpT or Pinterest	30.6%	38.8%
Textbooks	3.9%	0%

* There were participants from the December 2022 study that added four responses of their own that were outside of those listed on the survey: RISC curriculum, NASA climate kids, and those that they created on their own. Three participants also indicated that they did not use any curricular resources.

3. The New Jersey Climate Change Education Hub was made in collaboration with the New Jersey Climate Change Education Initiative and SubjectToClimate; the website provides educational resources and lesson plans written by New Jersey teachers and aligned with New Jersey's learning standards.

Climate Education in the Curriculum

Equipping Students with Knowledge and Skills

Teachers were asked if they felt that schools in their region were equipping students with knowledge and skills to understand climate change and take appropriate action in their own lives. Over 80% of respondents in each survey maintained that school curricula do not sufficiently address climate change education.

Table 8

In your opinion, are schools in your region equipping students with the knowledge and skills to understand climate change and take appropriate action in their own lives?

	June 2022	December 2022
Yes, there is already enough climate education in the curriculum.	17.6%	14.1%
No, the curriculum does not sufficiently address climate change education.	80.4%	81.1%
Schools should not be responsible for climate education.	2%	4.2%

Over 80% of respondents in each survey maintained that school curricula do not sufficiently address climate education.

School Education Gateway, an organization funded by the European Commission, conducted a climate education survey that ran from May to June 2020 and received responses from 36 countries. Both our study and the EU study concur that the majority of people—more than 80% and 70% of respondents, respectively—believe the regional curricula do not sufficiently address climate change education.[4]

4. "Survey on Climate Education." School Education Gateway, July 31, 2020.

Reasons for Exclusion of Climate Change in Lessons

Respondents were asked to select reasons that teachers might not include climate education in their lessons. While over 50% believed it to be outside their subject area, a greater percentage reported that there is a lack of expertise/training amongst teachers in their school or region.

Table 9

In your opinion, what is (are) the main reason(s) why teachers in your school or region might not include climate education in their lessons?

	June 2022	December 2022
It is outside their subject area.	52.9%	54.3%
It is not part of the curriculum.	43.1%	44.3%
Lack of climate education resources that are related to their subject area.	56.9%	64.3%
Lack of expertise/training.	74.5%	77.1%
It is already covered in other subjects.	23.5%	14.3%
There are more important issues already in the curriculum.	9.8%	14.3%
There is not enough evidence that climate change is a serious problem.	2%	4.3%
The subject is too controversial and politically sensitive.	9.8%	17.1%
It is not the school's role to cover such a topic.	0%	7.1%

Our data mirrors the EU data in that the biggest reason for exclusion is due to lack of expertise and training on climate change education, as well as a lack of climate change education resources that are related to the educator's subject area.[5]

About **75%** of both cohorts believed that the reason climate change isn't taught more in schools is due to a lack of expertise or training.

5. "Survey on Climate Education." School Education Gateway, July 31, 2020.

Reactions to Students Taking Climate Change Into Their Own Hands

Teachers were asked to think about their school or a school with which they are familiar and note the reaction they assume the school would have to students taking climate change into their own hands through meetings, social media campaigns, direct action, and climate strikes.

Table 10

Thinking of your school, or a school you know, what would be its reaction to students taking climate change into their own hands (e.g. ad hoc meetings, social media campaigns, direct action, climate strikes)?

	June 2022	December 2022
Approval They would have the support of the whole school.	31.4%	35.2%
Somewhat Approval The school would have it up to the individual teacher to decide what position to take.	37.3%	26.8%
Neutral The school would not say anything and the students would be responsible.	11.8%	11.3%
Disagree The school would not allow students to perform such actions.	3.8%	5.6%
Don't Know	15.7%	21.1%

It was believed that the school would either somewhat or completely support students who took climate action into their own hands. This study's data differ slightly from the EU data, as the School Education Gateway study indicated “Approval” was the most highly selected answer, although this was only the case for this survey's December iteration. More respondents from the NJ survey were not sure about the attitude their school would adopt towards climate action: 15–20% compared to approximately 8% in the EU survey.

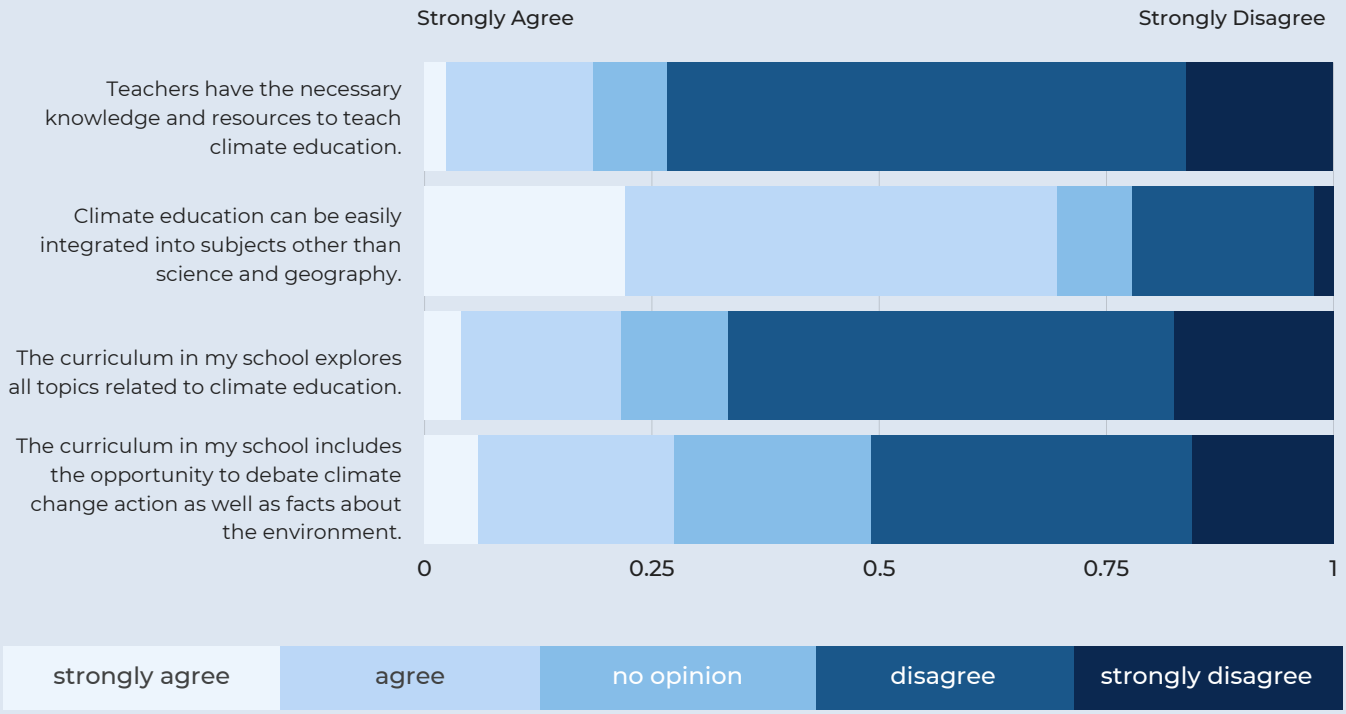
Agreement on Statements

Teachers were asked to what extent they agreed with the following statements: (1) Teachers have the necessary knowledge and resources to teach climate education, (2) Climate change education can be easily integrated into subjects other than sciences and geography, (3) The curriculum in my school explores all topics related to climate change, and (4) The curriculum in my school includes the opportunity to debate climate change action as well as facts about the environment.

June 2022

In the initial survey, over 73% of respondents believed that teachers do not have the necessary knowledge to teach climate change education, which concurs with the responses from prior questions. However, despite this belief, approximately 69% of educators do maintain that climate education can be integrated into subjects other than science. On the whole, respondents did not believe that the curriculum sufficiently addresses climate change or discusses climate action.

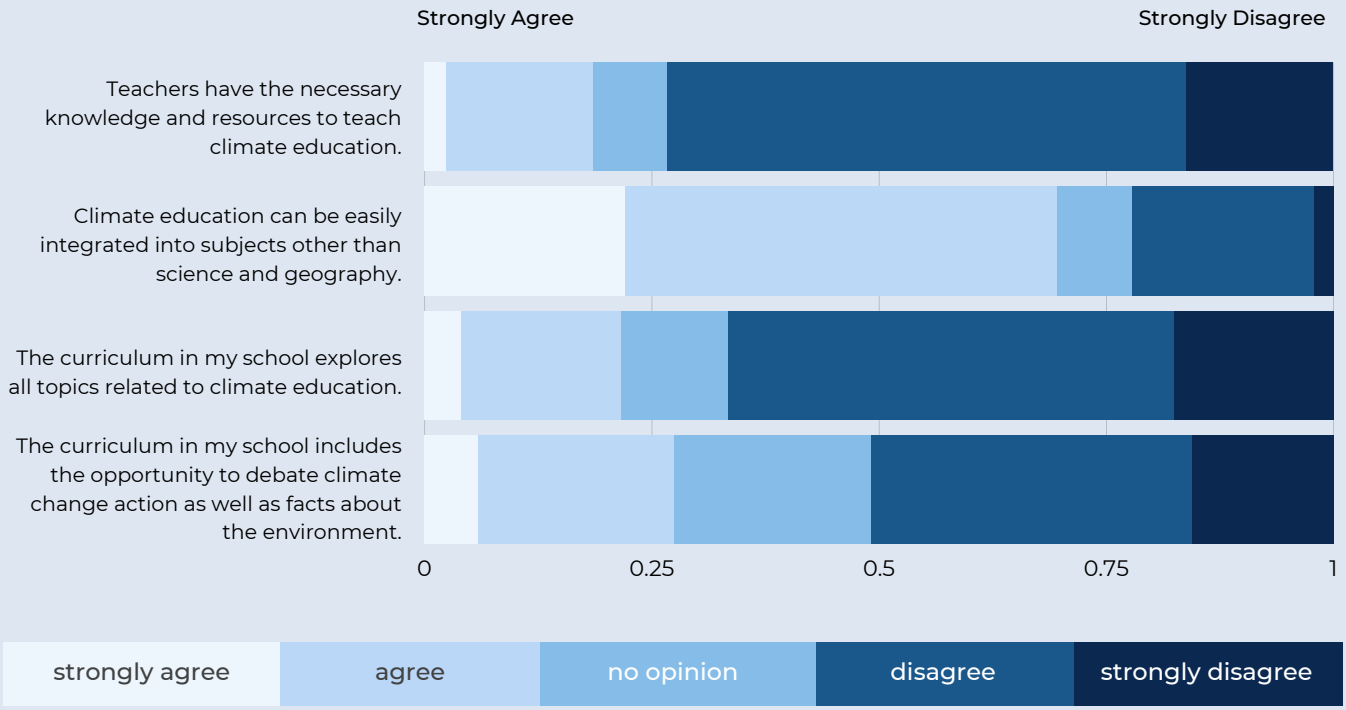
Figure 1



December 2022

After one semester of integrating climate change education into the curriculum, educators responded similarly to the first survey. There was a higher percentage of “No Opinion” responses, which may be attributed to the survey’s sample size and randomness.

Figure 2



Our findings align with the EU data, as there is agreement on the imperative to include climate change education in the curriculum but a reluctance to embrace the interdisciplinary nature of the subject. In addition, the level of disagreement is higher when it comes to assessing the current implementation of climate change knowledge and climate action into learning standards.

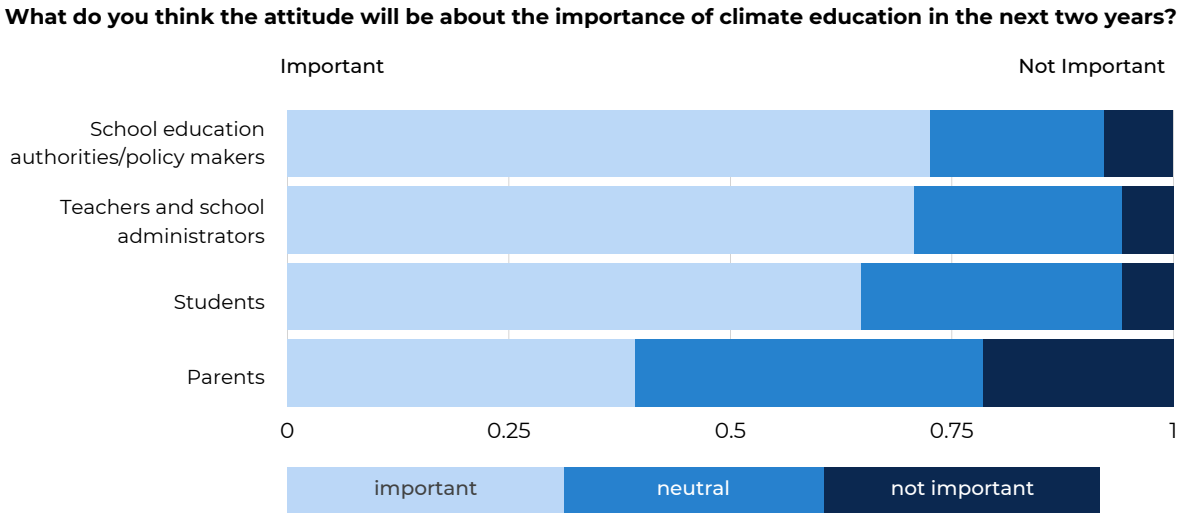
Change in Attitudes

Teachers were asked what they think the attitude towards the importance of climate change will be in the next two years. They were asked to assess this for (1) school education authorities/policy makers, (2) teachers and administrators, (3) students, and (4) parents.

June 2022

The overwhelming majority of respondents believed that climate change will be an important subject to educators, policy makers, administrators, and students. However, the responses were more evenly split when it came to parents.

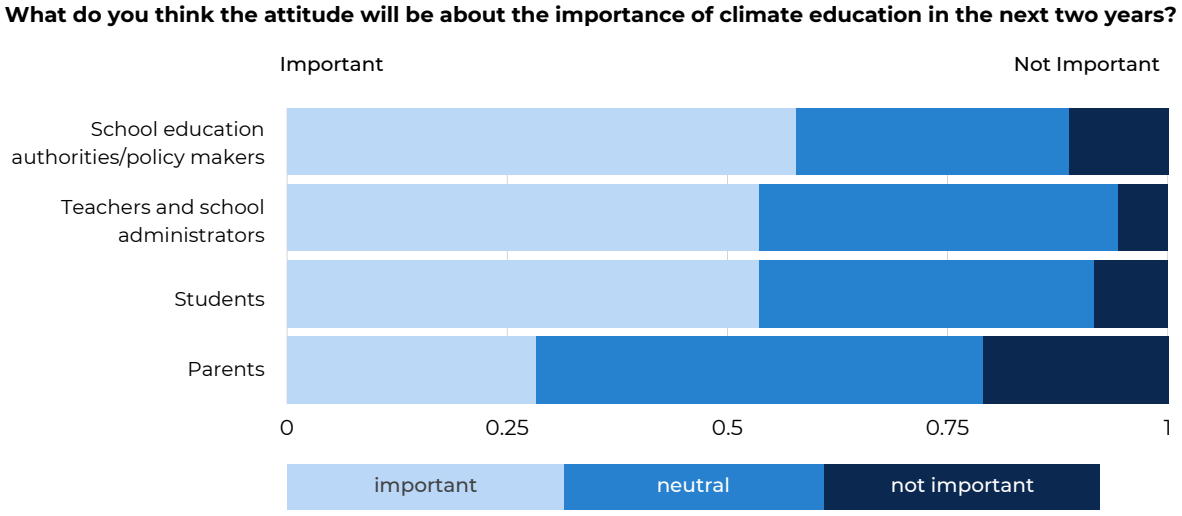
Figure 3



December 2022

The December survey contained more “Neutral” responses, but otherwise followed a similar pattern as the June survey.

Figure 4



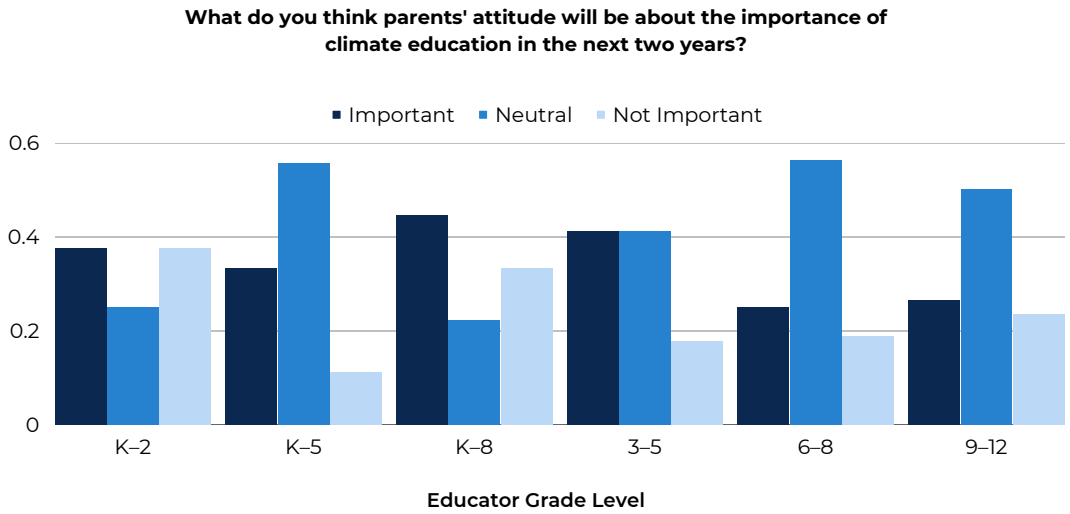
Our survey results mirror that of the EU study conducted by School Education Gateway, making an exception for the fact that they did not include parents in the question. Most respondents assume climate change education will be important, while the next highest number of respondents indicate climate change education will have a neutral value, and the lowest percentage of respondents express that climate change education will not be important. The opinion on parents' attitude presents an interesting result, in that there is a higher percentage of "Not Important" and "Neutral" responses.

Perception of Parents' Attitudes According to Educator Grade Level

Focusing on educators' perceptions of the attitude of parents concerning the importance of climate education, we decided to split the combined group of June and December respondents into grade levels (both groups were used to provide larger sample sizes). Overall, the primary grade bands seem to more strongly regard this as an important subject amongst parents. Specifically, the K–5 and 3–5 grade bands have at least 20% more respondents saying climate education will be "Important" to parents rather than "Not Important."

Over 50% of responses from the K–5, upper-middle school, and high school grades deem climate education as "Neutral" when referring to perceived parental viewpoints on the subject. This may result from lower levels of overall communication between educators and parents in higher grade levels, which manifests in an ambiguous perception of what is deemed important.

Figure 5



Examining Results

Overall, we saw very few differences in the data for the June and December cohorts. We thus set out to look for factors that may have caused some variation amongst the respondents.

Several of the survey questions were analyzed based on those respondents who reported using the New Jersey Climate Change Education Hub created by the New Jersey Climate Change Education Initiative in partnership with SubjectToClimate, who adapted their platform to create a resource database for New Jersey educators with resources on interdisciplinary climate change education.

Comparison Between Hub Users and Non Hub Users

This section compares the responses given by those who used the Hub with those who did not. While we analyze some intriguing trends, it is important to note that these differences are not derived from large sample sizes. The sample size for the June and December surveys was 51 and 71, respectively, and such numbers can not ensure statistical significance for findings. However, a sample size of 30 is the typical minimum value for statistical tests, albeit with a lower confidence interval.

Familiarity with Climate Change Education Standards

Survey-takers were asked, on a scale of "1" to "5", with "5" being the highest:

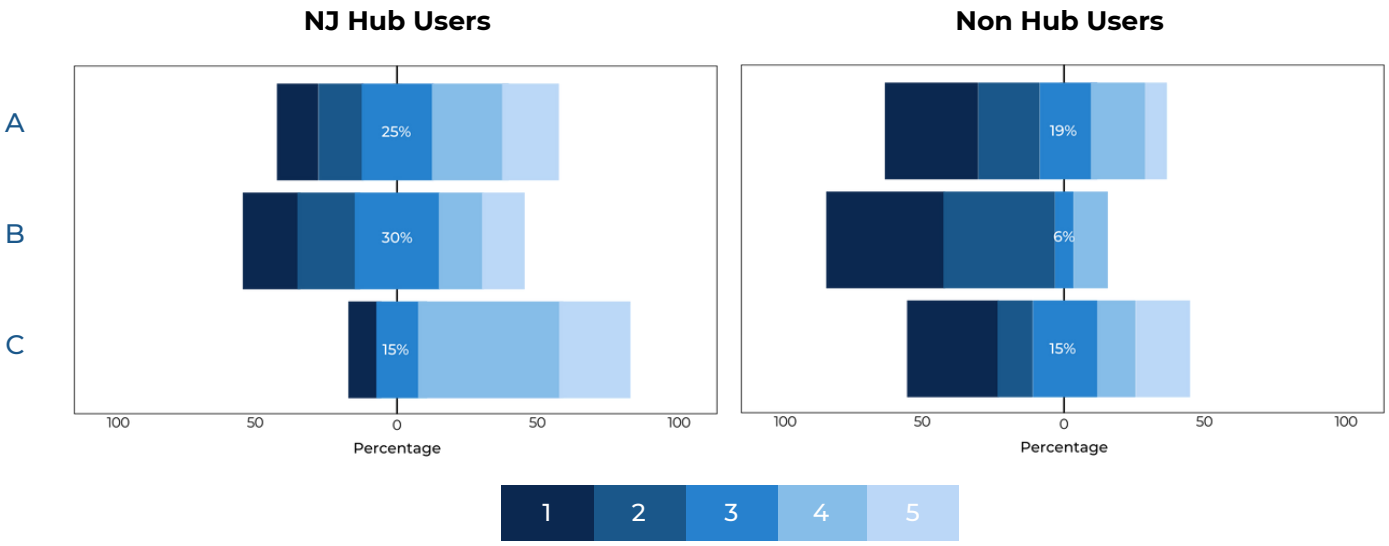
A. Rate your familiarity with the NJ CC Education Standards.
B. Rate your familiarity with the NJ DOE's webpage on CC Education standards.
C. Rate your level of confidence in integrating climate change education into your curriculum.

The following figures illustrate the percentages of each population that responded to the above statements, in order from top to bottom.

June 2022

When asked about their familiarity with the New Jersey Climate Change Education Standards, 75% of respondents who used the New Jersey Climate Change Education Hub rated their knowledge between a "3" and a "5." When specifically asked about how well they knew the New Jersey Department of Education's webpage on the standards, there was less agreement: 40% of "1" or "2" values and 30% of "3" values.

Figure 6



Confident in their awareness of climate change standards, approximately **75%** of Hub users indicated they were well-prepared to integrate the standards into the curriculum.

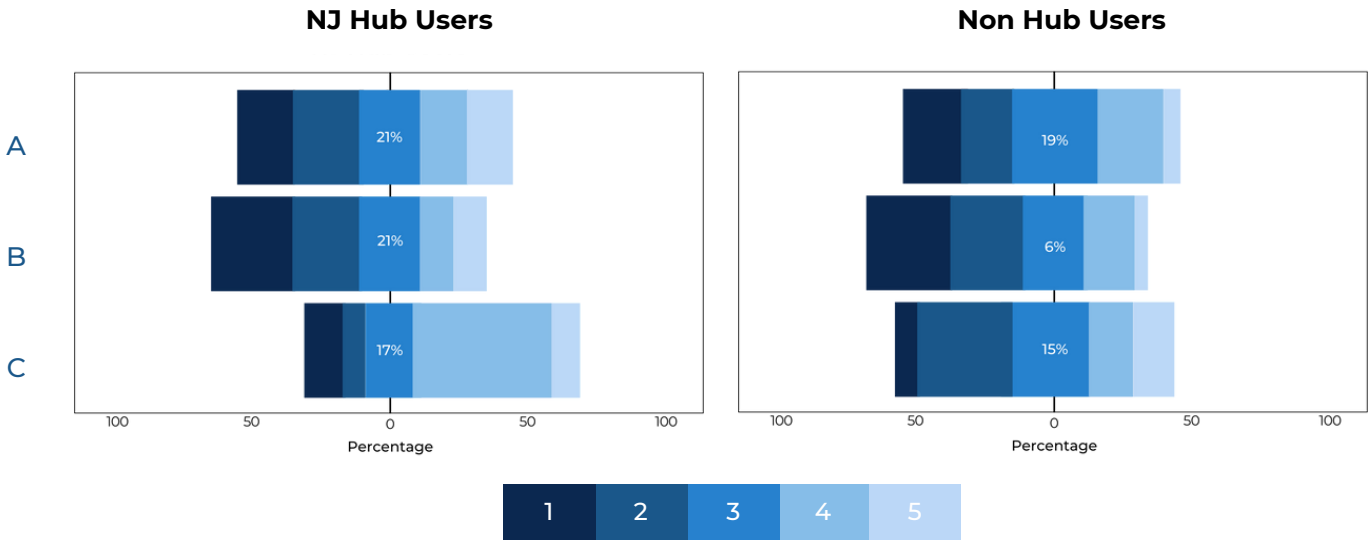
By contrast, Figure 6 shows that there was a significantly higher rate of "1" responses from non Hub users across all three statements. Around 32% of non Hub users rated their familiarity with the standards as a "1," and when asked about the NJ DOE's webpage, that number grew to just under 42%.

Over **45%** of non Hub users indicated that they were not adequately prepared to integrate climate change into their curriculum.

December 2022

While initially appearing to have a higher distribution of “1” or “2” responses amongst Hub users, Figure 7 does not indicate any major changes from the previous survey. Overall trends are similar, in that respondents who have used the New Jersey Climate Change Education Hub are familiar with the content and believe they can integrate it into their classrooms.

Figure 7



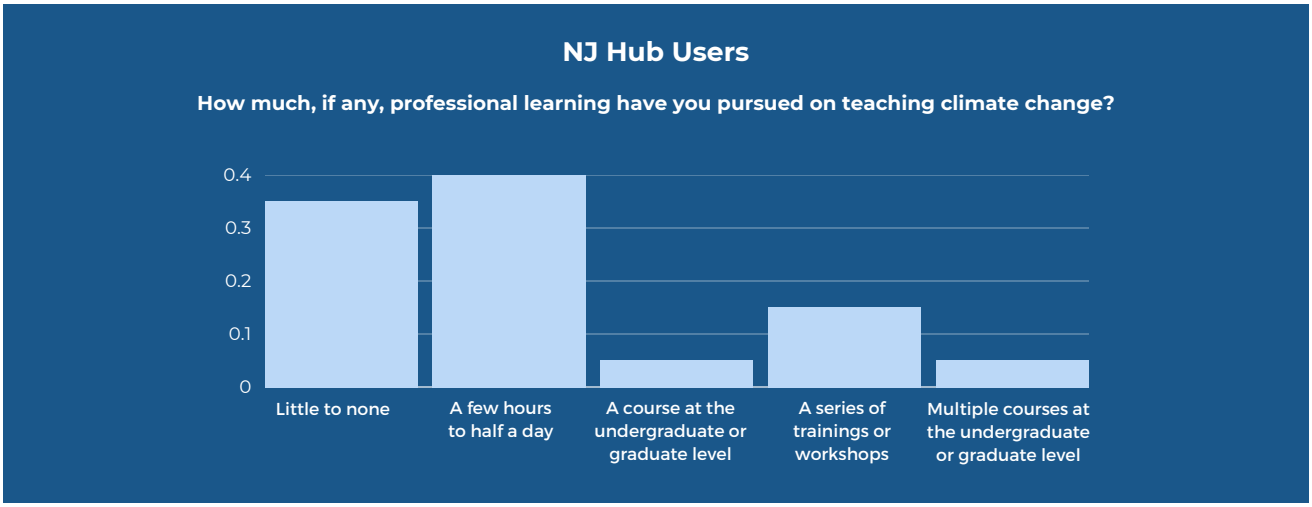
In analysis of the non Hub users' December statistics, it is interesting to note a significant decrease in the number of "1" responses. There was an approximately 24% drop in the number of respondents who felt their ability to integrate climate change into the curriculum was a "1," down to 8.5% from 33% in June. This could be due to sampling, or perhaps it reflects a different perspective after the implementation of one semester of climate education in the formal curriculum.

Professional Training

June 2022

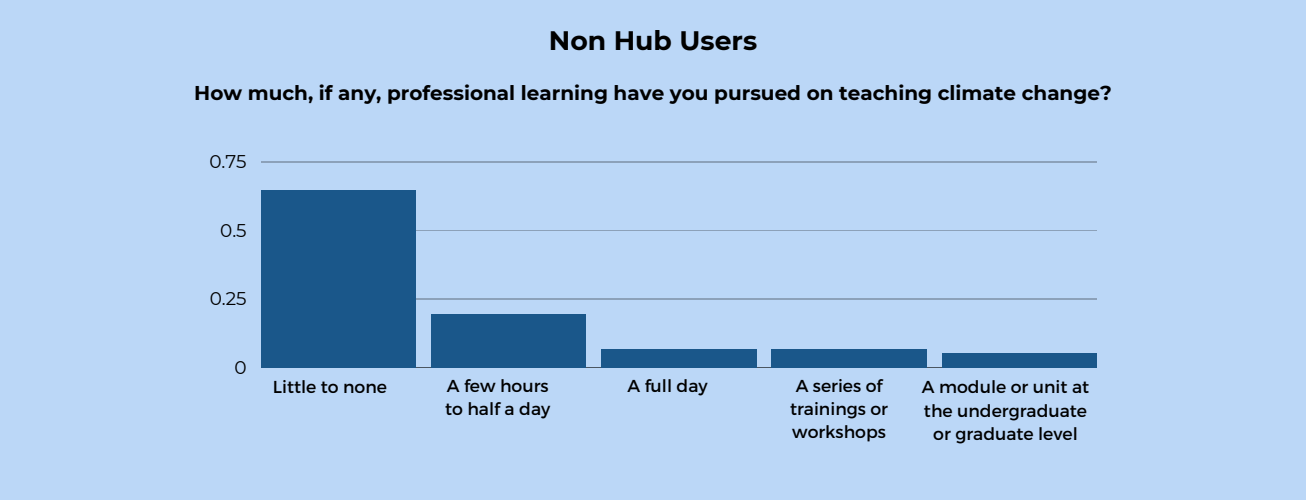
Overall, **Hub users reported higher percentages of professional development: 65% have a fundamental basis for climate change education**. Of those respondents, most completed a few hours to half a day of training, with the second-largest percentage coming from a series of training or workshops.

Figure 8



In comparison, 64.5% of non Hub users had little to no professional development. This is nearly the same proportion of Hub users that did have professional development, resulting in a starkly opposite trend amongst the two groups. If respondents indicated that they had professional development, it was mostly from a few hours to half a day of training.

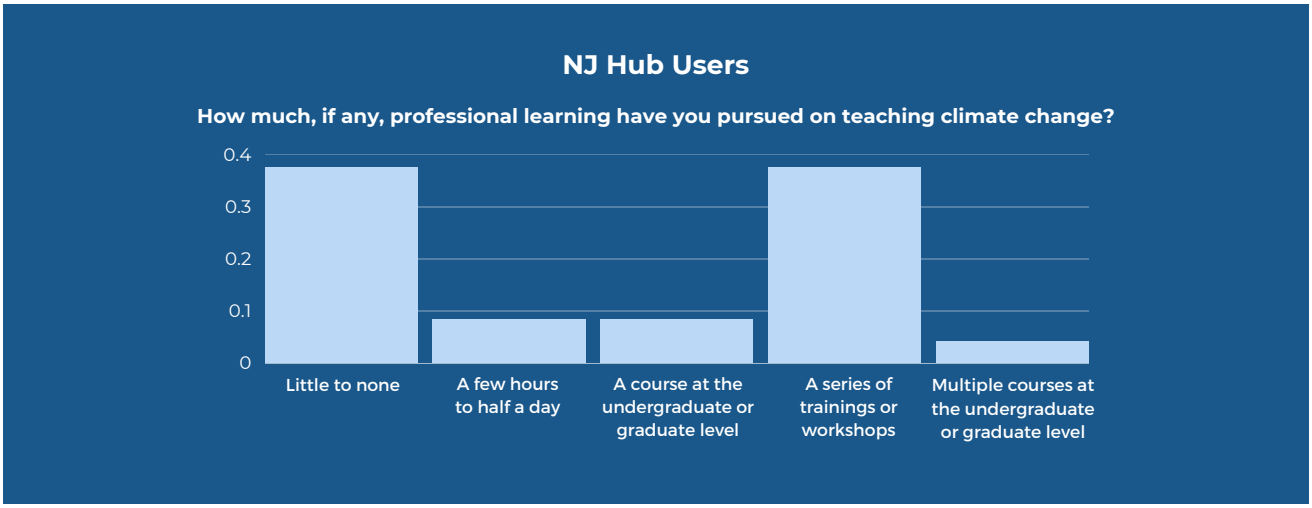
Figure 9



December 2022

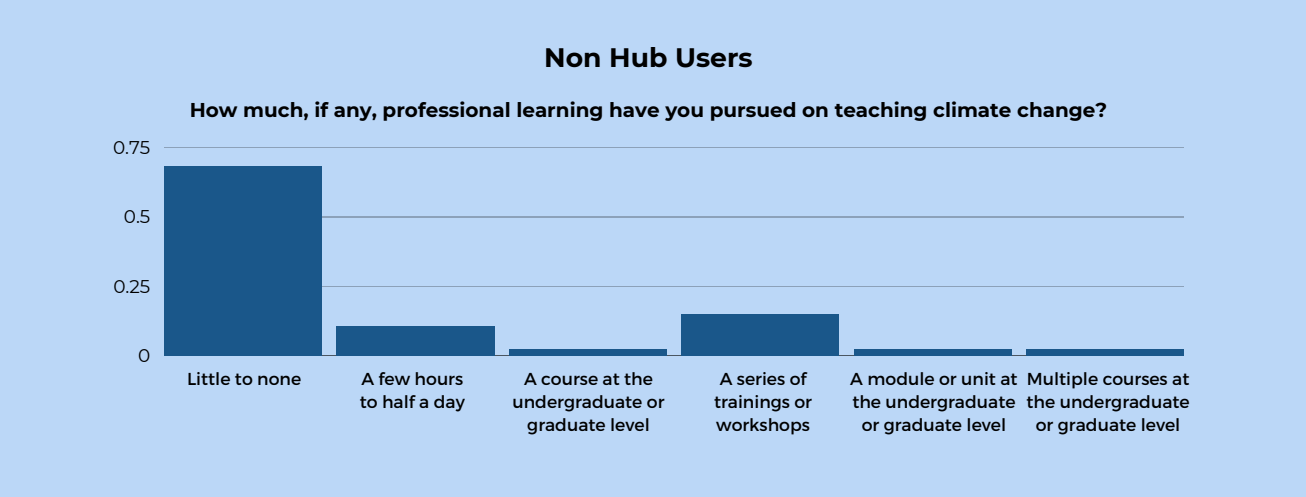
In the second survey, there was **approximately the same proportion of Hub users who had at least some professional development** (62.5%), but there was **a notable increase in respondents who had a series of training or workshops**: 37.5% up from 15%.

Figure 10



Similar trends were found in the December survey amongst non Hub users: around 68% had little to no professional development training. However, there was a small increase in the respondents who attended a series of trainings or workshops: 14.9% up from 6.45%.

Figure 11

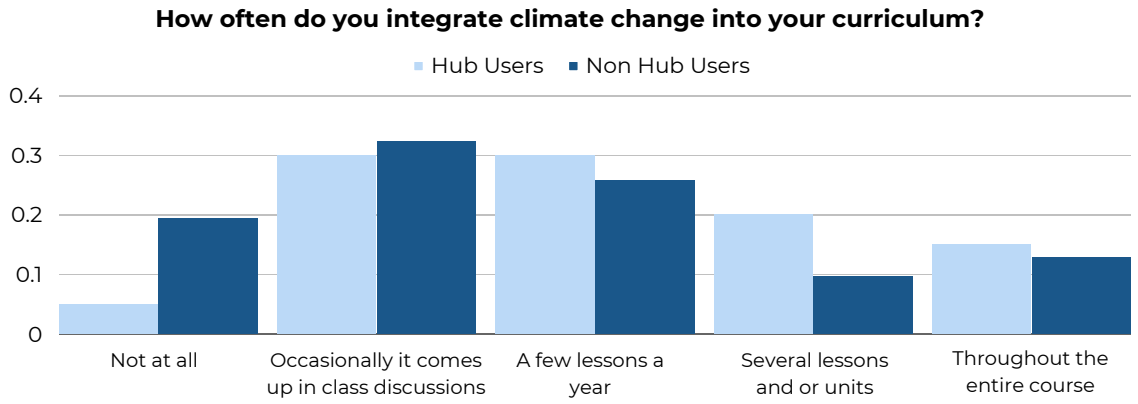


Climate Change Content Integration

June 2022

While Hub users indicated they had more professional training in climate change education, the integration of climate change content was approximately similar across Hub and non Hub users: on an occasional basis and in a few lessons throughout the semester.

Figure 12

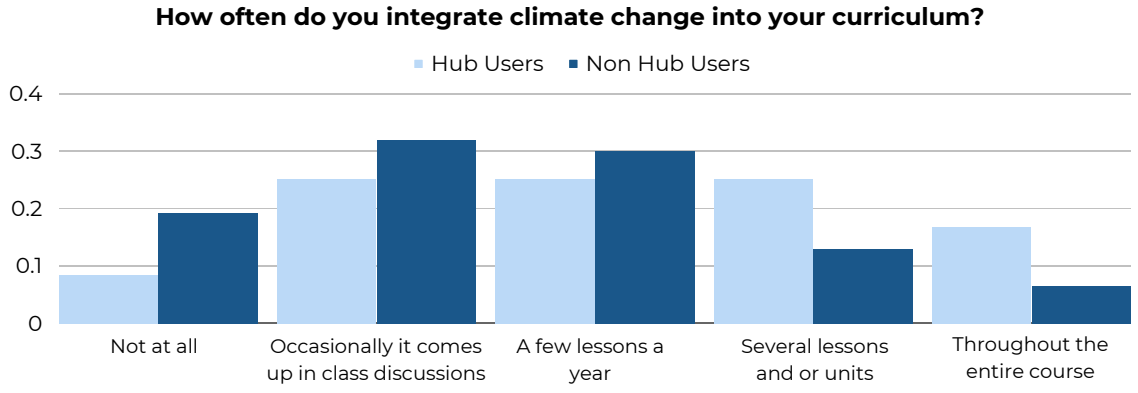


Ninety-five percent of Hub users integrate climate change education into their curriculum more than once, compared to the approximately 80% of non Hub users. In addition, 35% of Hub users integrate it into as many as several lessons or the entire course, while only 22% of non Hub users do the same.

December 2022

After the semester, Hub users demonstrated a notable increase in the amount of professional training, along with a greater integration of climate change content into their classrooms. Non Hub users reflected an increase in professional development, but the overall integration of climate change content remained approximately the same.

Figure 13



After a semester, 91% percent of Hub users integrated climate change education into their curriculum more than once, compared to nearly 80% of non Hub users. In addition, 41% of Hub users integrate it into as many as several lessons or the entire course, while only 19% of non Hub users do the same.

Conclusion

Overall, educators believe climate change to be an essential component of interdisciplinary education, but there is a lack of sufficient resources for professional development and teacher training on the subject. We observed few differences between respondents in the June and December cohorts, indicating that teachers did not feel adequately prepared to implement NJ's updated standards and that they did not iterate climate change education standards over the course of this survey timeline. However, we noted promising trends amongst respondents who used the New Jersey Climate Change Education Hub, as they reported higher confidence in their familiarity with climate change standards and content as well as higher confidence in their abilities to integrate climate change into their classrooms.

In both surveys, more than 90% of Hub users integrated climate change into their curriculum at least once, which was 10% more than non Hub users. Perhaps this could be due to the approximately inverse trends of the training and learning opportunities—the percentage of Hub users that had at least some professional development was nearly equal to the percentage of non Hub users who had no professional development. These trends imply that more awareness of the Hub could prove to be very helpful to NJ teachers.

Future Work

Since the trends described above related to Hub users are not based off of large sample sizes of educators, future studies should focus on evaluating the efficacy of the New Jersey Climate Change Education Hub, observing whether respondents answered questions any differently after consulting with it. This would help evaluate the available resources and determine suitability in relation to what educators are looking for.

In addition, if the study was modified to follow the same set of teachers over the course of a semester, this would allow for an analysis of how educators' viewpoints changed—or remained the same—after a semester of climate change education. This would allow us to investigate whether educators believe they have adequate resources, professional development, and network support, while also assessing their views on the implementation of climate change education.

Appendix A

Tables

Table 1

Grade Levels Taught	June 2022	December 2022
K–2	23.5%	22.5%
3–5	27.5%	33.8%
6–8	33.3%	46.5%
9–12	40.2%	29.6%
K–12 or other*	2%	9.8%

* Respondents provided a different grade range or indicated they worked in a supporting role, as a preschool teacher, or instructional coach.

Table 2

Subjects Taught	June 2022	December 2022
Science	48%	55.1%
Mathematics	38%	37.7%
ELA	32%	44.9%
Social Studies	24%	34.8%
Computer Science & Design	14%	18.8%
Career Readiness	12%	14.5%
Comprehensive Health & PE	8%	10.1%
Visual & Performing Arts	4%	11.6%
World Languages	4%	8.7%
Other*	12%	12.6%

* Other areas included instructional coaching, preschool, physical education, school counseling, STEM, English as a Second Language, or library skills.

Table 3

	Mean		Median		Variance		t-test
	June 2022	Dec 2022	June 2022	Dec 2022	June 2022	Dec 2022	
Familiarity with climate change standards	2.75	2.78	3	3	1.87	1.63	0.904
Familiarity with NJ DOE webpage on standards	2.27	2.46	2	2	1.52	1.67	0.409
Confidence integrating climate change into instruction	3.16	3.10	3	3	2.17	1.49	0.818

Table 4

How often do you integrate climate change into your curriculum?

	June 2022	December 2022
Throughout the entire course	13.7%	9.9%
Several lessons or a unit	13.7%	16.9%
A few lessons during the year	27.5%	28.2%
Occasionally in class discussions	31.4%	29.6%
None	13.7%	15.5%

Table 5

How much (if any) professional learning have you pursued on teaching climate change?

	June 2022	December 2022
Little to none	52.9%	57.7%
Few hours to a half day	27.5%	9.9%
Series of training	9.8%	22.5%
Full day	3.9%	1.4%
Module or course unit at undergraduate or graduate level	2%	1.4%
Course at the undergraduate level	2%	4.2%
Multiple courses at the undergraduate or graduate level	2%	2.8%

Table 6

What format did your climate change professional learning take?

	June 2022	December 2022
Asynchronous self-paced	37.3%	29.6%
Asynchronous webinars	11.8%	16.9%
Synchronous online webinars or meetings	15.7%	18.3%
In-person workshops, conferences or lectures through the school district	15.7%	15.5%
In person workshops, conferences, or lectures through informal learning environments	11.8%	15.5%
Courses at an institution of higher education	3.9%	14.1%
Not applicable	39.2%	39.4%

Table 7

Which source(s) will you use (or have you already used) to find or adapt curricular resources for teaching about climate change in the 2022-23 academic year?

	June 2022	December 2022*
NJDOE instructional resources	65.3%	62.7%
Existing instructional materials from previous years	38.8%	41.8%
Resources from professional groups related to the disciplines I teach	42.9%	37.3%
NJ Climate Change Education Hub	40.8%	35.8%
Media sources such as National Geographic or PBS	57.1%	59.7%
Teacher-created materials such as TpT or Pinterest	30.6%	38.8%
Textbooks	3.9%	0%

* There were participants from the December 2022 study that added four responses of their own that were outside of those listed on the survey: RISC curriculum, NASA climate kids, and those that they created on their own. Three participants also indicated that they did not use any curricular resources.

Table 8

In your opinion, are schools in your region equipping students with the knowledge and skills to understand climate change and take appropriate action in their own lives?

	June 2022	December 2022
Yes, there is already enough climate education in the curriculum.	17.6%	14.1%
No, the curriculum does not sufficiently address climate change education.	80.4%	81.1%
Schools should not be responsible for climate education.	2%	4.2%

Table 9

In your opinion, what is (are) the main reason(s) why teachers in your school or region might not include climate education in their lessons?

	June 2022	December 2022
It is outside their subject area.	52.9%	54.3%
It is not part of the curriculum.	43.1%	44.3%
Lack of climate education resources that are related to their subject area.	56.9%	64.3%
Lack of expertise/training.	74.5%	77.1%
It is already covered in other subjects.	23.5%	14.3%
There are more important issues already in the curriculum.	9.8%	14.3%
There is not enough evidence that climate change is a serious problem.	2%	4.3%
The subject is too controversial and politically sensitive.	9.8%	17.1%
It is not the school's role to cover such a topic.	0%	7.1%

Table 10

Thinking of your school, or a school you know, what would be its reaction to students taking climate change into their own hands (e.g. ad hoc meetings, social media campaigns, direct action, climate strikes)?

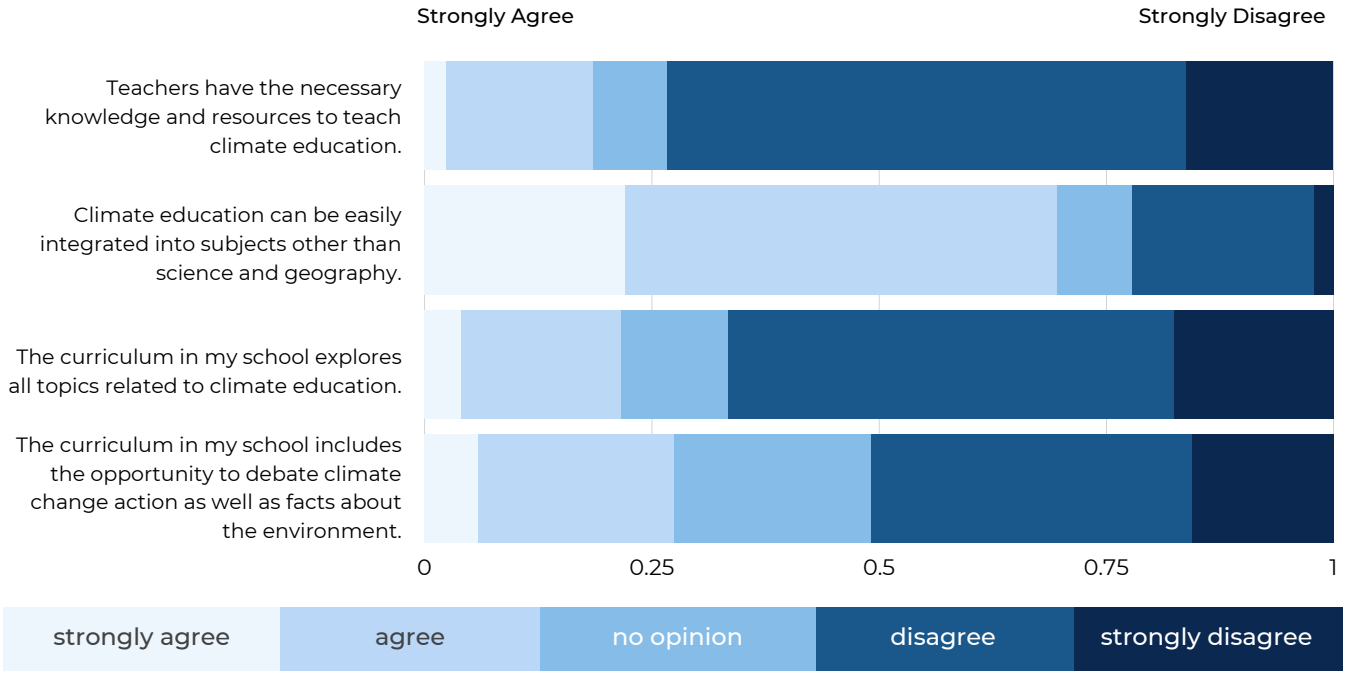
	June 2022	December 2022
Approval They would have the support of the whole school.	31.4%	35.2%
Somewhat Approval The school would have it up to the individual teacher to decide what position to take.	37.3%	26.8%
Neutral The school would not say anything and the students would be responsible.	11.8%	11.3%
Disagree The school would not allow students to perform such actions.	3.8%	5.6%
Don't Know	15.7%	21.1%

Appendix B

Figures

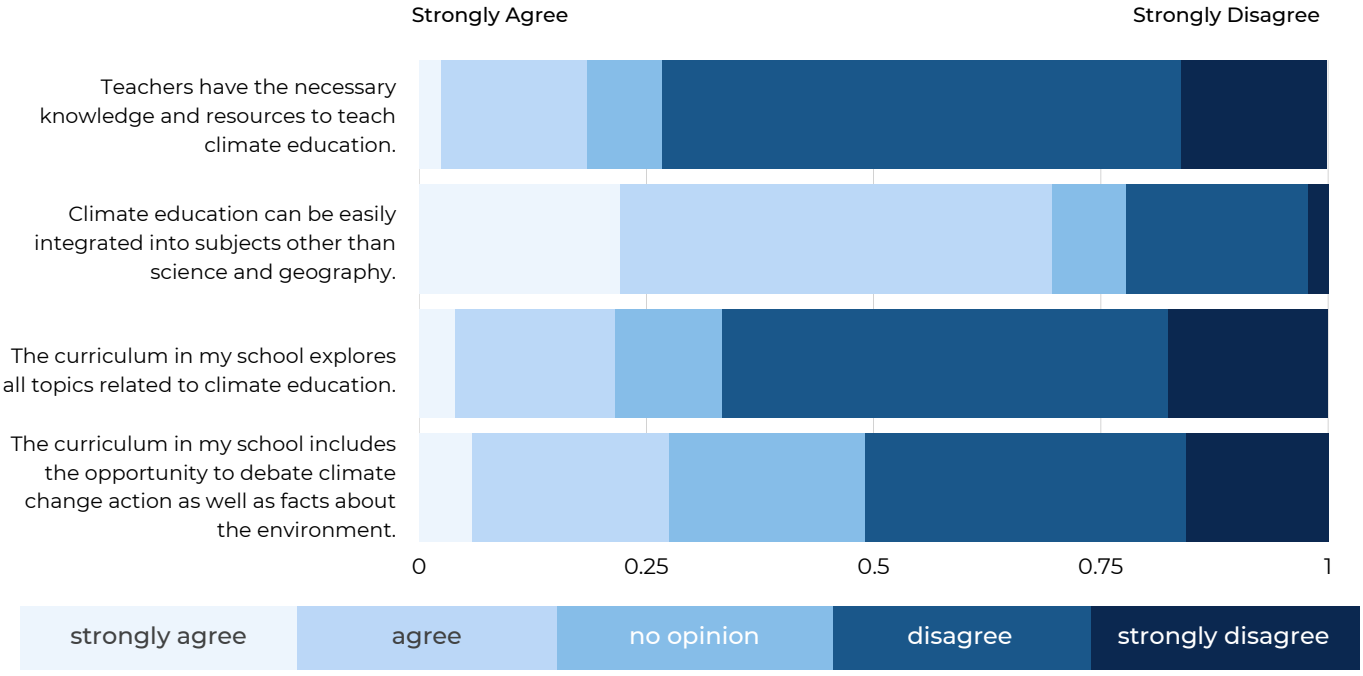
June 2022

Figure 1



December 2022

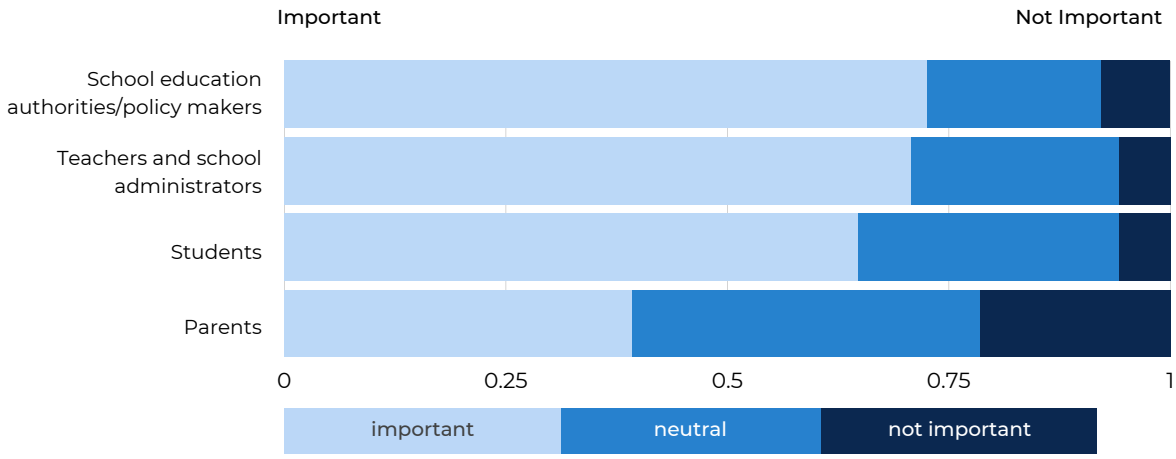
Figure 2



June 2022

Figure 3

What do you think the attitude will be about the importance of climate education in the next two years?



December 2022

Figure 4

What do you think the attitude will be about the importance of climate education in the next two years?

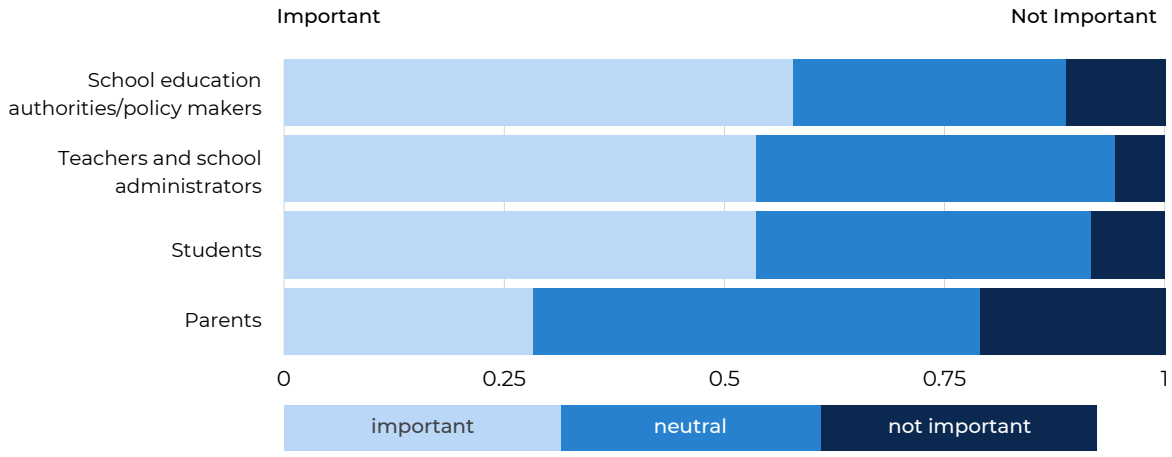
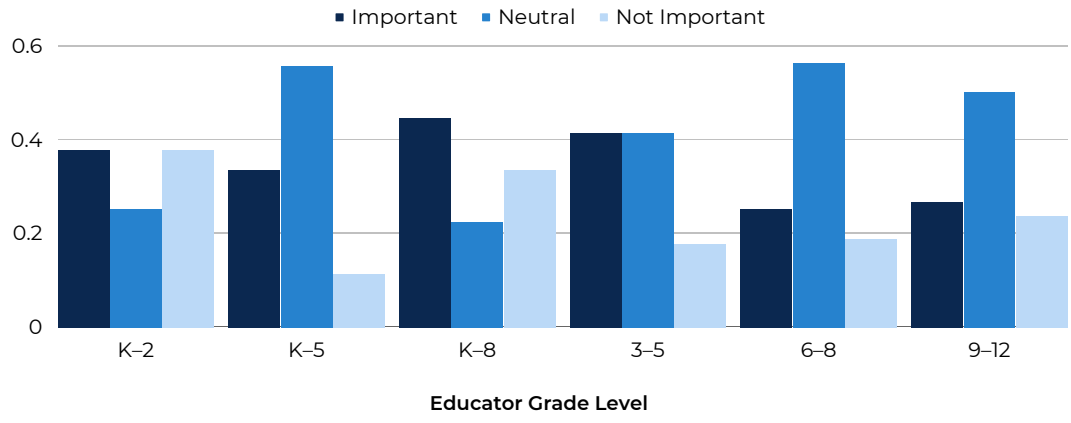


Figure 5

What do you think parents' attitude will be about the importance of climate education in the next two years?



Survey-takers were asked, on a scale of one to five, with five being the highest:

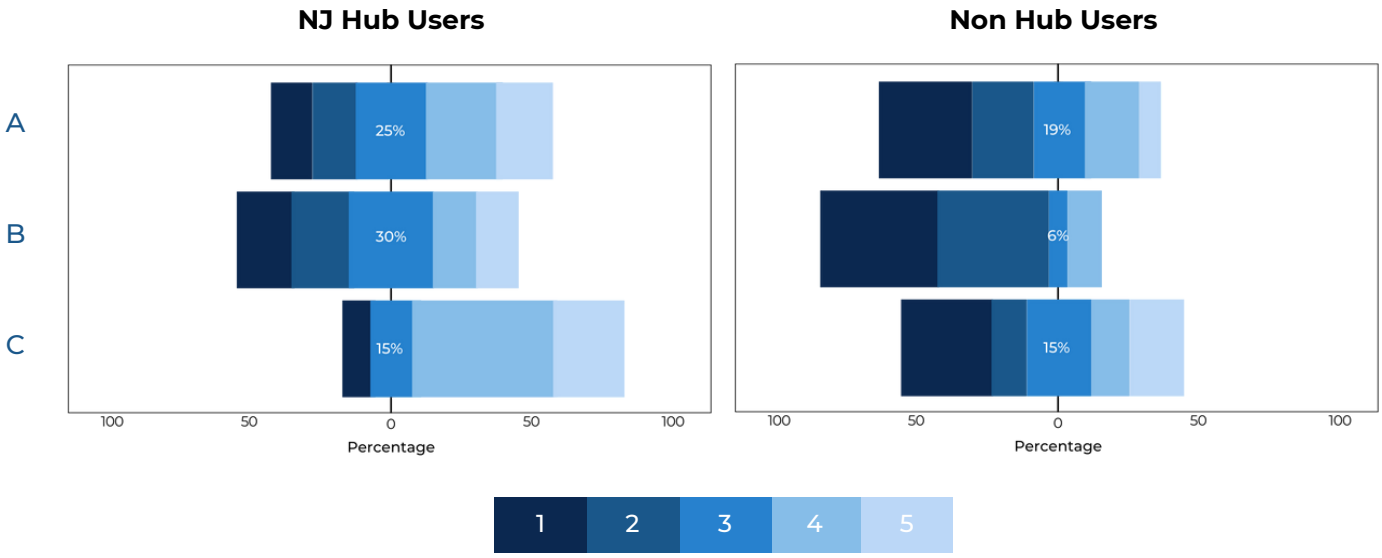
A. Rate your familiarity with the NJ CC Education Standards.

B. Rate your familiarity with the NJ DoE's webpage on CC Education standards.

C. Rate your level of confidence in integrating climate change education into your curriculum.

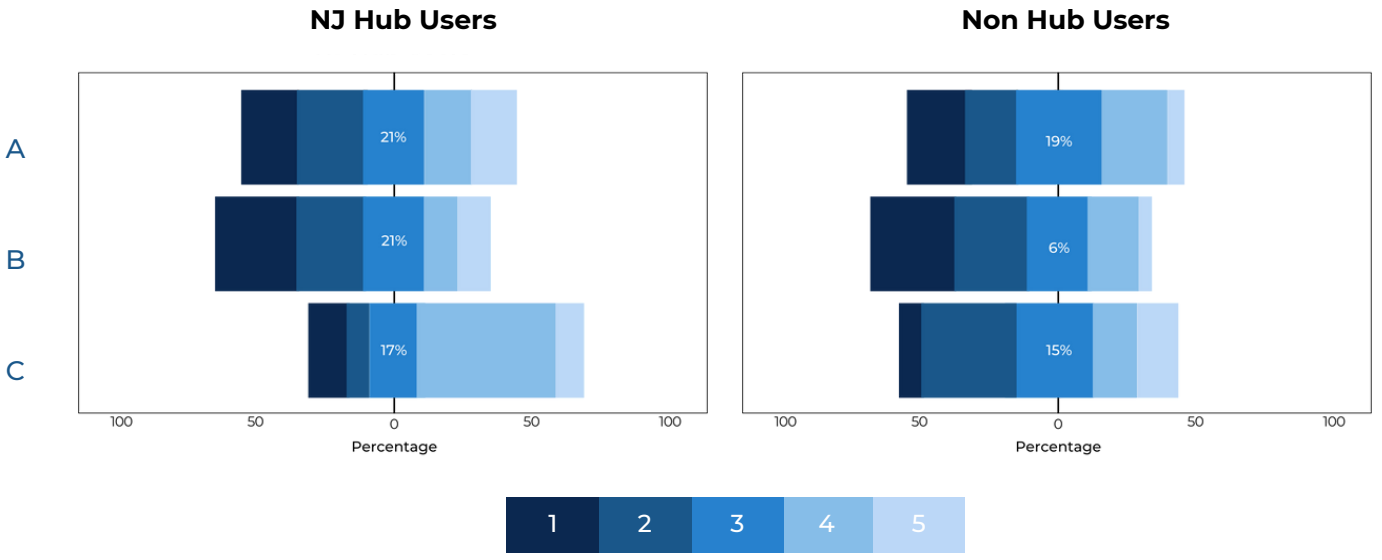
June 2022

Figure 6



December 2022

Figure 7



June 2022

Figure 8

NJ Hub Users

How much, if any, professional learning have you pursued on teaching climate change?

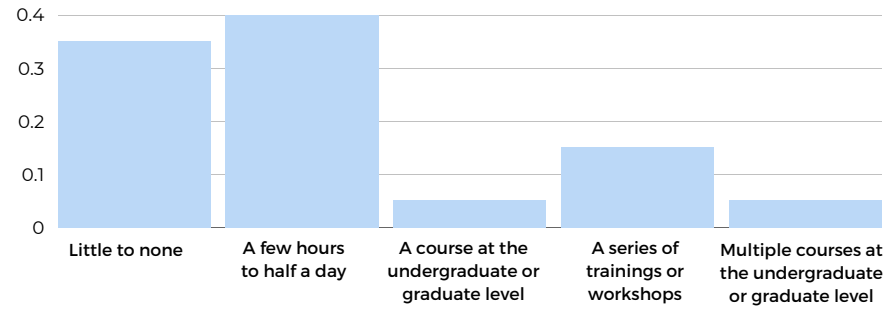
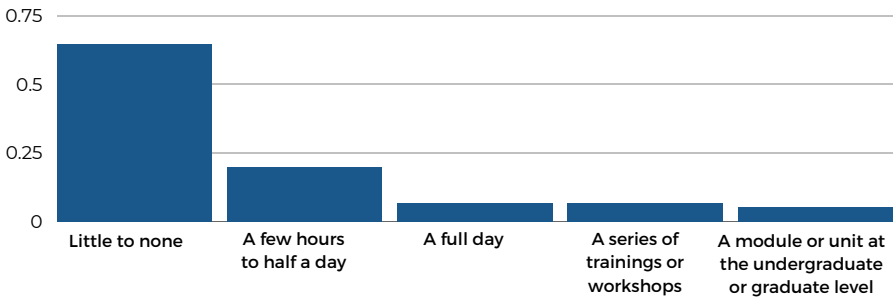


Figure 9

Non Hub Users

How much, if any, professional learning have you pursued on teaching climate change?

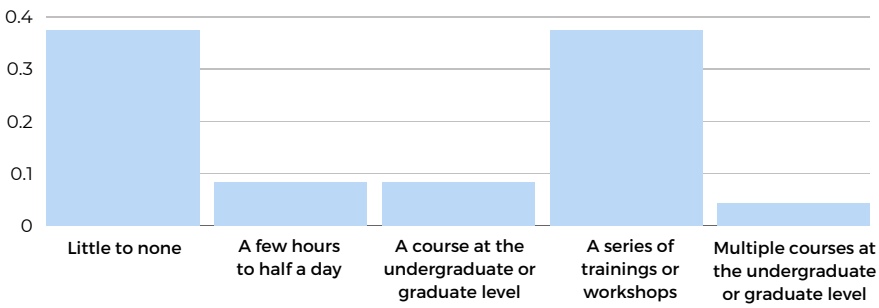


December 2022

Figure 10

NJ Hub Users

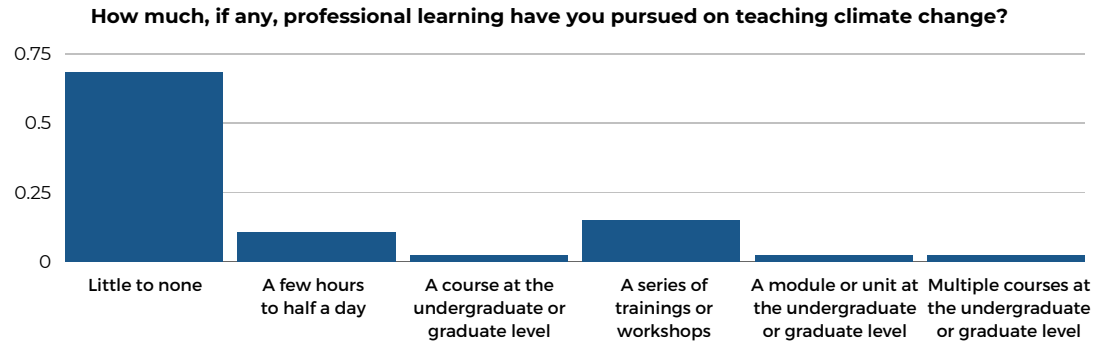
How much, if any, professional learning have you pursued on teaching climate change?



December 2022

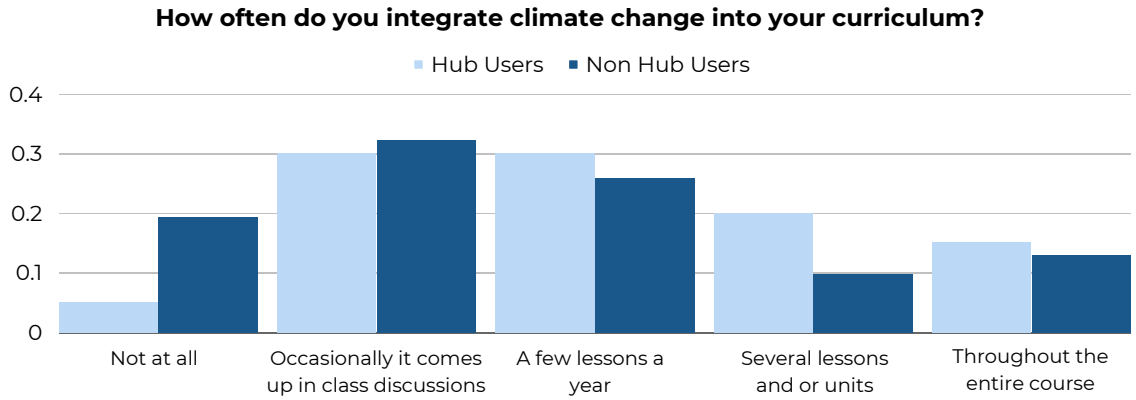
Figure 11

Non Hub Users



June 2022

Figure 12



December 2022

Figure 13