GLOBE LAC 2023 REGIONAL MEETING REPORT

Dates: October 12 - 14

Location: Panama City (Panama)

Number of participants: 44

- 12 Country Coordinators
- 7 Teachers
- 2 Mentor Trainers
- 2 RCO Staff
- 2 GIO Staff
- 1 SSAI
- 2 NASA Scientist
- 16 students

Countries: Argentina, Bahamas, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Panama, Paraguay, Suriname, United States.

- To view the presentations, click here.
- To view the pictures, click here.
- To view the Star Story, click here.

Objectives

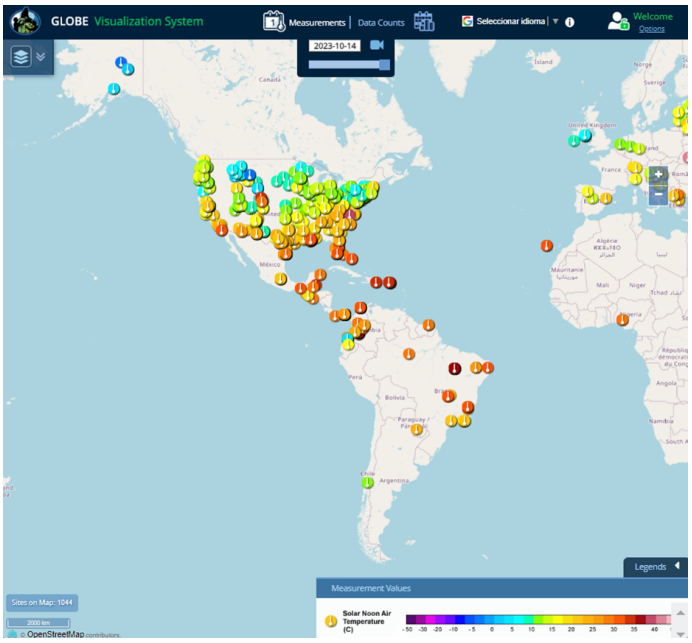
- Facilitate the gathering of LAC CCs, trainers, WG members, and teachers to facilitate the exchange of GLOBE experiences and best practices throughout the year.
- Foster and strengthen relationships and collaboration with key regional stakeholders, including the Panamanian Ministry of Education and the United States Embassy.
- Offer participants a thorough understanding of how the GLOBE Program is implemented and the strategic initiatives overseen by GIO.
- Promote collaboration and mutual learning by sharing best practices for coordinators and providing guidance on seeking funding from US embassies.
- Promote open science by engaging educators, students, and special guests, including NASA scientists, in collaborative initiatives.
- Foster greater awareness among all attendees about GLOBE's ongoing initiatives and encourage active participation based on their interests. In this regard, present reports from working groups such as education, inclusion, evaluation, science, and technology.
- Enhance online resource management, promote user participation, and use GLOBE Observer data visualization, collection, and analysis tools.
- Present preliminary results of the 'Trees Within LAC' campaign.
- Observe the annular eclipse on 10/14 and collect data before, during, and after.
- Meet new CCs in person and introduce them to other CCs and WG members.

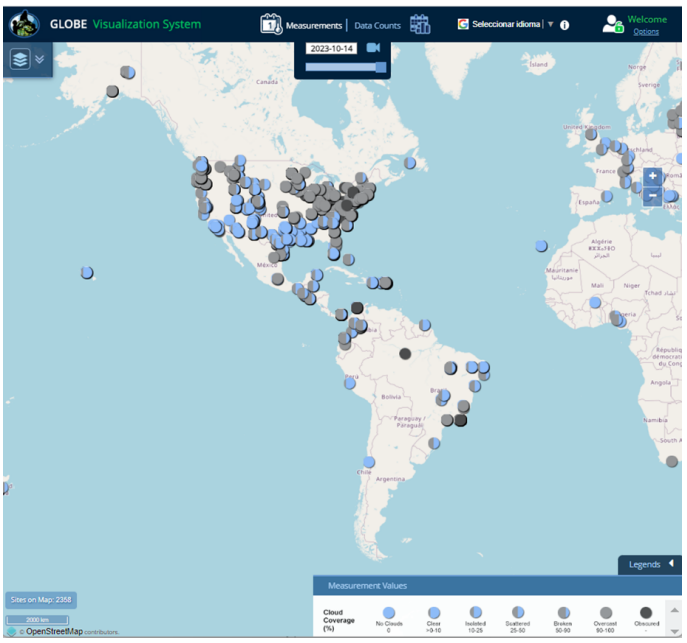
- Presentation of the plans for GLOBE LAC RCO for 2024 and discussion of upcoming actions and events, including the Annual Survey, IVSS, Earth Day videos, Star, and STEM Stories.

Outcomes

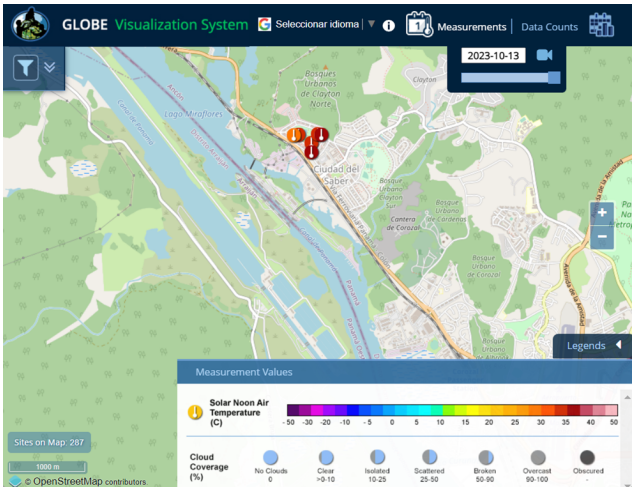
- RCO and the Pedagogical Academic Committee presented the E-books, with 16 learning activities, 4 data literacy activities, and 4 remote sensing activities per Sphere. All the activities are available in English and Spanish on globe.gov.
- One workshop on how to apply the activities in the classroom was conducted for each sphere, and teachers were provided with a toolkit to carry out the activities in their classrooms.
- The RC and the Trees within Campaign leaders presented the Campaign´s preliminary results.
- It was the first time that teachers and students joined the RM.
- The students had their activities led by two mentor Trainers, including field, data collection, and cultural activities.
- All the participants joined the student´s presentation on their IVSS projects and the cultural exchange activities.
- The day before the Eclipse and the day of the Eclipse, all participants split into three groups to collect data related to the Eclipse (clouds, air temperature, soil temperature, and land cover)
- Training on the GLOBE Observer App and Eclipse Tool. Measurements during the Regional Meeting

- Measurements during the eclipse





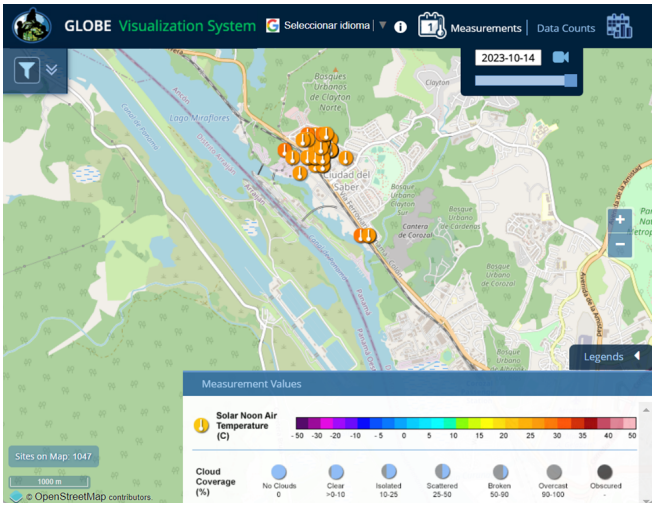
- Air temperature measurements - Panama.



October 13, Panama - Pre-eclipse. 247

air temperature measurements

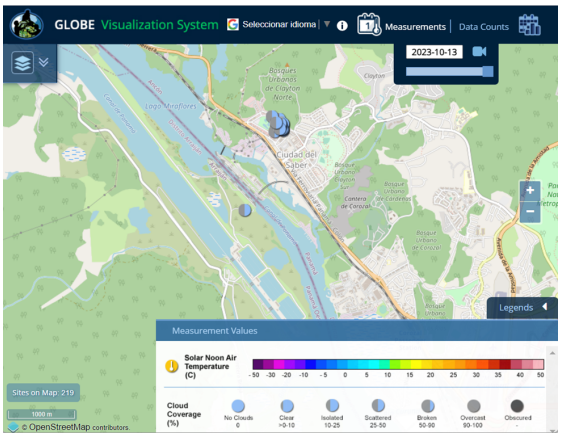
(includes automatic sensors and the Park's weather station).



October 14, Panama - Annular Eclipse

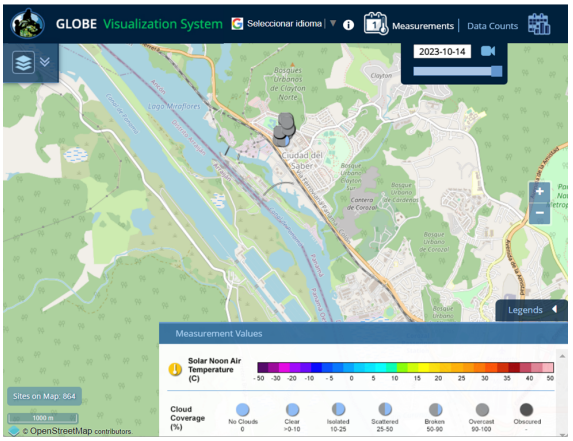
610 air temperature measurements (including automatic sensors and the weather station in the park).

- Cloud cover measurements - Panama



October 14, Panama - Annular Eclipse

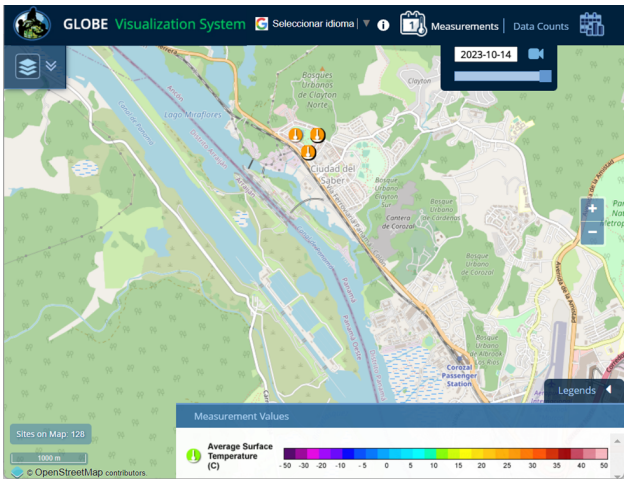
90 cloud cover measurements.



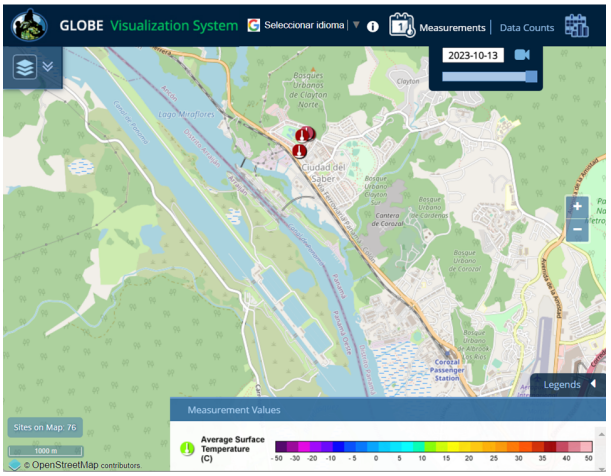
October 13, Panama - Pre-eclipse.

31 cloud cover measurements

- Surface temperature



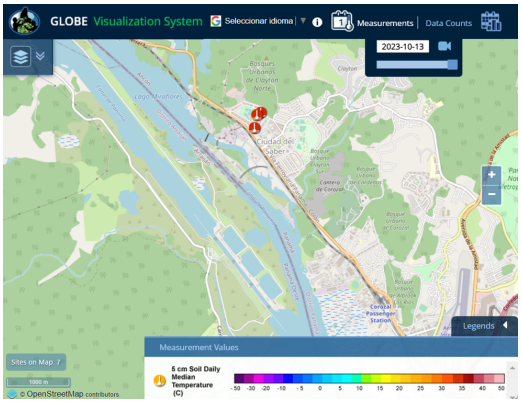
13 October, Panama - Pre-eclipse. 10 surface temperature measurements



October 14, Panama - Annular Eclipse

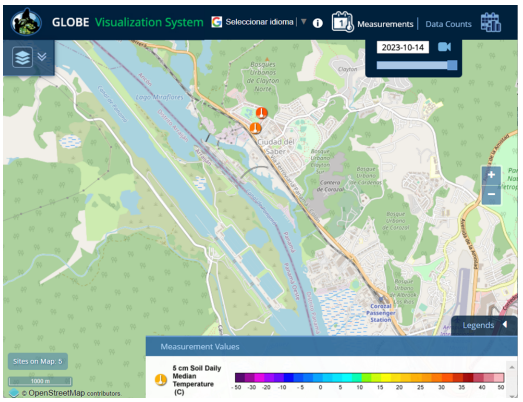
35 surface temperature measurements

- Soil temperature at 5 cm depth



October 13, Panama - Pre-eclipse

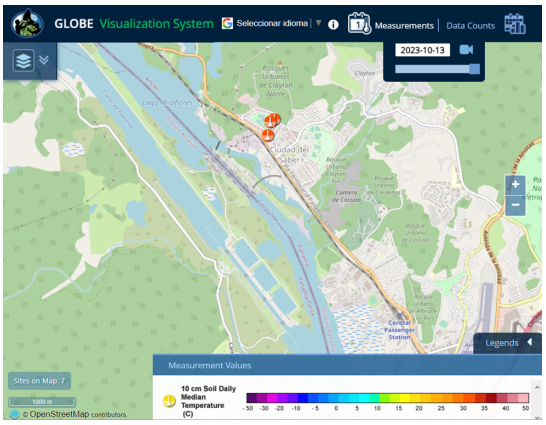
14 soil temperature measurements at 5 cm depth



October 14, Panama - Annular Eclipse

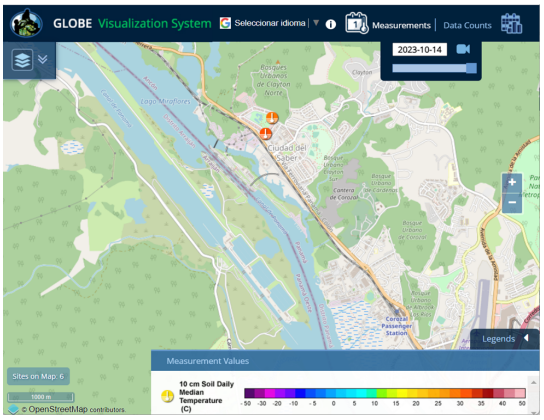
33 soil temperature measurements at 5 cm depth

- Ground temperature at 10 cm depth



October 13, Panama – Pre-eclipse

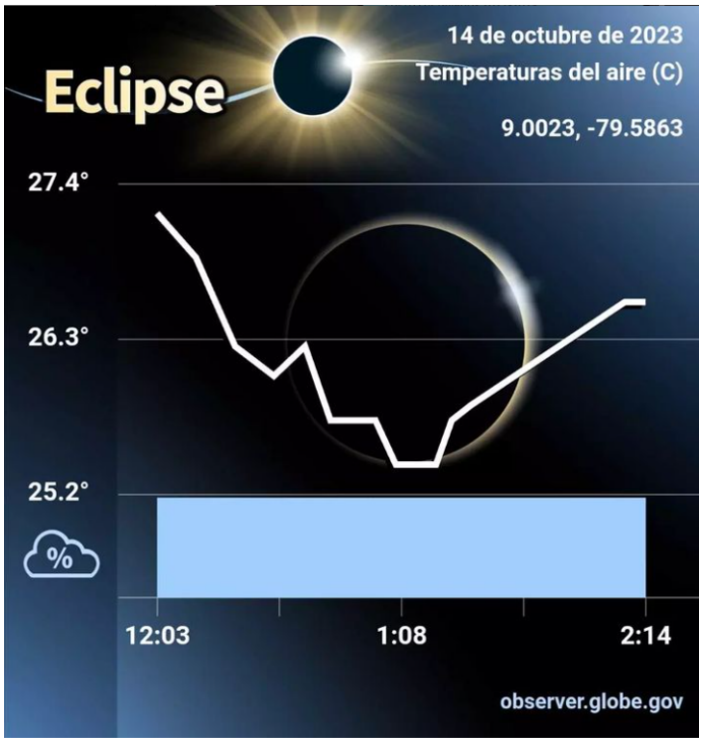
14 measurements of ground temperature at a depth of 10 cm



October 14, Panama – Annular Eclipse

33 measurements of ground temperature at a depth of 10 cm

- Air Temperature measurements during the eclipse



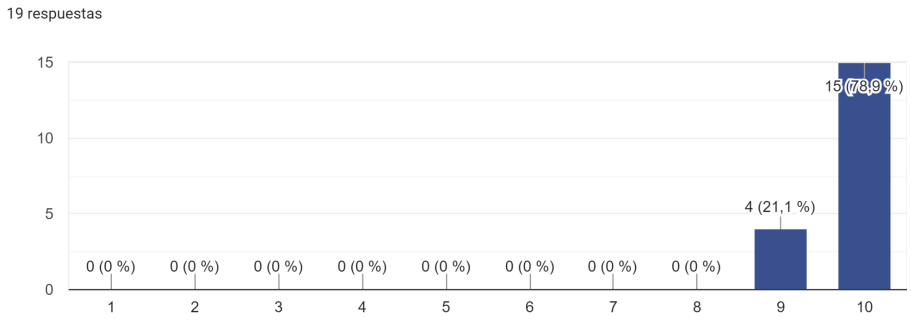
- The total number of measurements at the regional meeting is 1,117.

Lessons learned from the meeting.

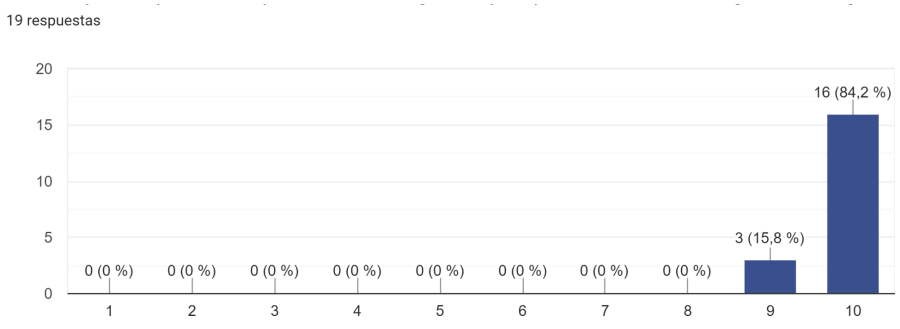
- Training for coordinators is essential, particularly in topics such as the GLOBE app and website updates.
- The dynamic involving teachers and students in the Meeting was a significant challenge that has had a positive impact. Additionally, these participants play an essential role as GLOBE dissemination agents.
- The meeting space is essential for planning collaborative projects and developing joint activities.
- Strengthening teamwork skills, tolerance for frustration, and resilience are crucial to overcoming adversity.
- Nothing replaces the energy of the face-to-face Meetings
- It is important to invite the WG members from the region to showcase their work, invite others to join the WG, and strengthen the bounds within CCs and WG members.
- RCO must keep translating into Spanish GLOBE materials, learning activities, etc.,

participants' feedback

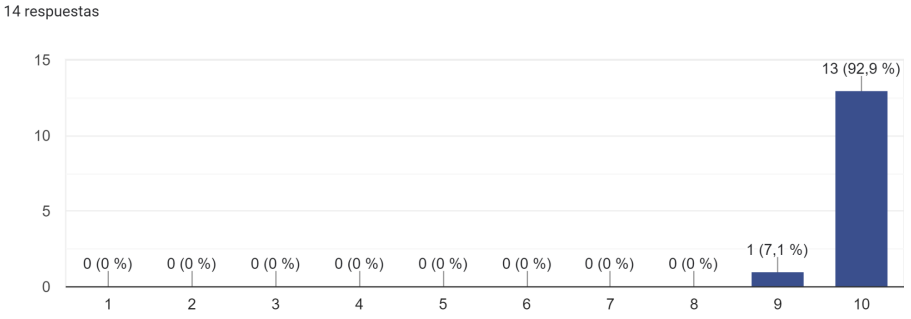
1. On a scale of 1 to 10 (1 being unsatisfactory and ten being very satisfactory), how would you rate the organization of the Regional Meeting?



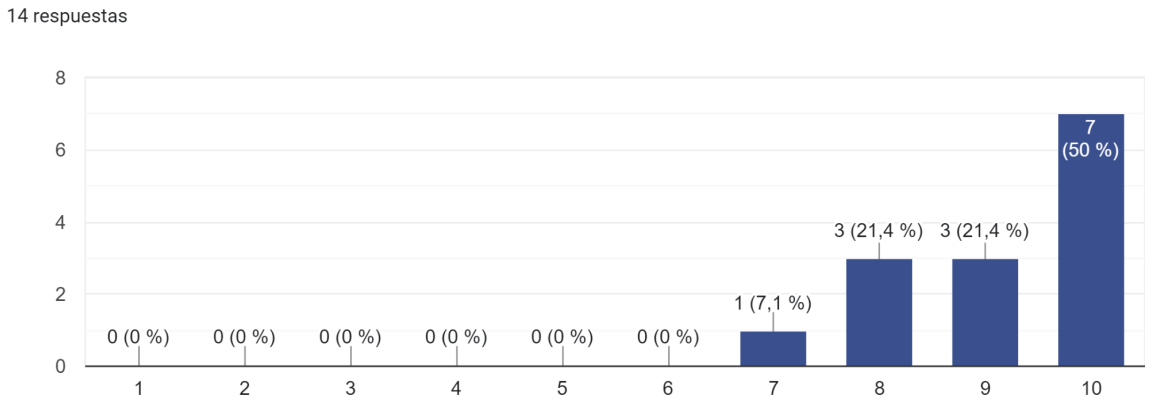
2. On a scale of 1 to 10 (1 being not very satisfactory and 10 being very satisfactory), how would you rate, in general, the sessions and topics planned for the 2023 Regional Meeting?



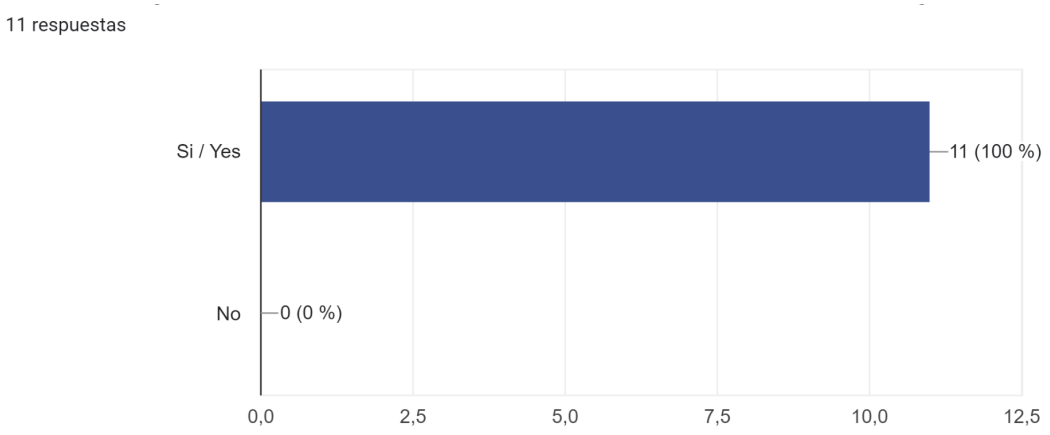
3. Question for coordinators only: on a scale from 1 to 10 (where one is unsatisfactory and ten is very satisfactory), how would you rate the inclusion of teachers and students in the Regional Meeting?



4. Question for coordinators only. On a scale from 1 to 10 (where one is unsatisfactory and ten is very satisfactory), how would you rate the dynamics of the student presentations and the cultural exchange on the second day of the Meeting?



5. Question for coordinators only. Would you recommend including teachers and students in future Regional Meetings?



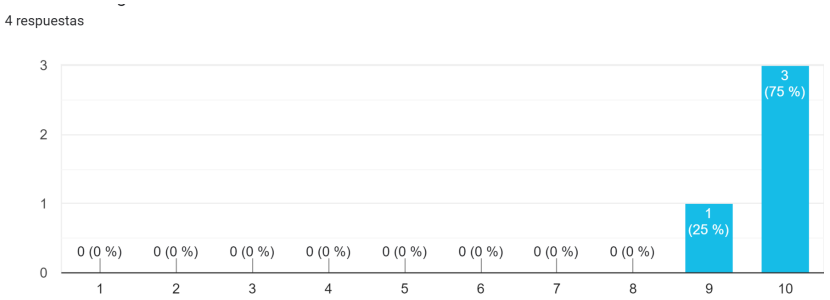
6. What did you like most about the Regional Meeting?
    - The inclusion of the teachers and students.
    - Organization, agenda, and teamwork.
    - The coordination. The hosts.
    - Presentations on the use of the GLOBE App.
    - The NASA scientist's conference.

7. What would you improve about the Regional Meeting?
    - Extend the duration of the sessions and workshops.
    - Conduct a training session on commonly used protocols.
    - Allow more time for project presentations and increased interaction.
    - Organize a session for local or cultural activities.
    - Include a feedback session at the end of the event to address lingering questions or concerns about future projects.

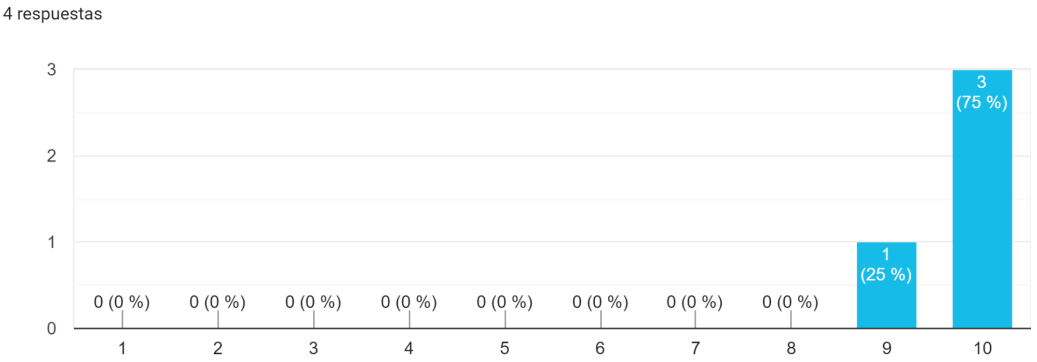
8. Additional comments
    - The idea of inviting teachers and students was excellent. It's an incentive that encourages them to participate more in activities and campaigns. Hopefully, it can be repeated next year.
    - The coming year will allow us to make significant progress for GLOBE.
    - The 2023 LAC Regional Meeting was well structured and very organized, with a dynamic team of organizers and instructors that made it enjoyable, informative, and interesting, all at the same time.
    - Appreciation for the opportunity our country has to be a part of it, and congratulations for the event organization and the quality of human and academic excellence present at each Regional Meeting. Keep going.
    - I love the empowered, positive group with excellent technical expertise. Thank you very much.
    - Thank you for everything you provide us and for how you value our work. I am very proud to be a part of it.
    - We are highlighting the work done by the LAC office and the leadership of our RC.

Student´s feedback

1. On a scale of 1 to 10 (1 being unsatisfactory and ten being very satisfactory), how would you rate the organization of the Regional Meeting?



2. On a scale of 1 to 10, how would you rate your experience participating in the Regional Meeting?



3. What did you like the most about the meeting?
    - Outings with other students and the accompanying adults.
    - I liked presenting my project in front of significant people from different nationalities who were familiar with the reality of my city. I also liked it because I was able to interact with other students.
    - It was a great experience as a student.
    - The activities and teamwork.

4. What are your main learnings or conclusions from the Regional Meeting?
    - Learning new protocols. Discovering and learning about new places like the Panama Canal, Punta Culebras, and the American Center.
    - The main learnings I had at the Regional Meeting were learning the different protocols we use when measuring the eclipse.

- Fellowship, science for the community. We sometimes get the desired results, but that's why we are researchers.
- I learned how to measure clouds and the study site.

5. What would you improve about the Regional Meeting?
    - I would improve the number of days because we could have done more experiments. Besides, I would have liked to be able to listen to the other students because with the stand format, we couldn't do that. I propose presenting it to an audience, exposing the work to everyone.
    - I hope they allow students to attend the regional meeting. It was one of the best experiences in my journey as a researcher. By giving young researchers the chance to participate in such gatherings, you are providing an opportunity for the future of each country to see different perspectives and share experiences. All the young people who were part of the regional meeting could share and see that many of us had similar experiences throughout our journey as researchers.