



Population Connection Education Program

Evaluation of 2021-2022 Teacher Training Workshops



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EXECUTIVE SUMMARY

Population Connection's Population Education Program (PopEd) conducts an evaluation of its teacher training workshops biennially in order to assess the program's effectiveness and to strengthen future workshops. This report examines the impact of PopEd workshops conducted in 2021 and 2022. In this two-year span, Population Education provided teacher training workshops for 20,077 educators through 1,114 workshops held in 49 U.S. states, the District of Columbia, six Canadian provinces, and three countries abroad.

This report is based upon data from three evaluation instruments.

- **Online follow-up survey:** A survey was e-mailed to 2021 and 2022 workshop participants in June 2023. Surveys were emailed to 6,086 workshop participants. Of those, 489 surveys, or approximately 8%, were completed and returned. In this survey, respondents provided demographic information about themselves and their teaching duties. They also responded to questions about the workshop or webinar they attended and the use and effectiveness of Population Education resources in their classroom.
- **Faculty questionnaire:** A questionnaire was sent to professors who sponsored workshops for their teacher education courses at colleges and universities (this represents approximately 50% of all presented workshops). We requested feedback on the quality of the workshop and presenter, as well as the usefulness for the students and how the workshop fit into the overall objectives of the course. Questionnaires were sent out on an ongoing basis, usually about two months following the event. We received 159 responses to this survey.
- **Post-workshop evaluation:** A short evaluation form was given to workshop participants immediately upon completion of the workshop. Comments from this survey instrument were individually reviewed. Substantive comments were pulled, as appropriate, and appear in Appendix G.

HIGHLIGHTS

- Population Education materials consistently receive high marks. Among experienced educators, 98% rated the in-person workshop materials as Excellent or Good and 97% rated the online workshop materials as Excellent or Good. The ratings among inexperienced educators were similar.
- Over 90% of teachers rate Population Education in-person and online workshops as Superior or Above Average in terms of content, usefulness, and presentation quality.
- 4 out of 5 teachers rate PopEd's workshops as Superior or Above Average in terms of their ability to integrate materials into their teaching.
- The vast majority of teachers who have attended a Population Education workshop have already used or plan to use the materials: 46% of respondents had already used the materials at the time of the survey. Of those who had not, 91% indicate that they plan to use the materials in the future.

- The majority of teachers who are using Population Education resources are using them consistently throughout the school year, with 63% using PopEd materials at least twice per year and 38% using them four or more times per year.
- After attending a Population Education workshop, teachers use an average of 3.5 PopEd activities with students.
- 94% of teachers determined that Population Education activities effectively engaged their students and 91% responded that the activities improved students' critical thinking and problem-solving skills. Nearly two-thirds noted that PopEd activities changed students' thinking regarding population-related issues.

In addition to exploring the effectiveness of Population Education workshops and classroom materials, the report also offers a high-level look at the overall objectives and background of the PopEd program, explores how population issues fit within the current K-12 education landscape and highlights the additional efforts of PopEd staff, outside of teacher training workshops.



Pre-service students pretend to be sprouting plants in the lesson, *Crowding Can Be Seedy*.

PROGRAM BACKGROUND

PROGRAM OBJECTIVES

The Population Education Program's ultimate goal is to enhance population literacy by:

- Developing classroom materials that encourage students to examine human population growth and the related environmental and social issues in a national and global context.
- Providing teachers with classroom strategies and materials to help students make informed decisions and be positive change-makers in matters related to environmental and social sustainability.
- Providing teachers with materials that enable them to meet state and national curriculum content standards by addressing population growth and its related issues.

POPULATION EDUCATION TEACHING MATERIALS

In order to achieve a future that is both just and sustainable, it is critical that young people understand the link between population dynamics and pressing global challenges like climate change, environmental degradation, inequality, and social injustice. PopEd lessons teach the content needed to understand these complex issues and highlight how population trends and human actions are inextricably linked to the future health of the planet. By promoting skills like data analysis, higher-order thinking, cooperative problem solving, empathy, and collaboration, PopEd lessons develop young people who will see the need for working toward a balance between people and resources and will have the skills to navigate problem solving in a globally interconnected world.

- **Elementary materials:** Students in grades K-5 learn about the basics of how and why populations grow, study the interconnectedness of nature, and develop a foundation for global citizenship. All of this is achieved while mastering basic knowledge in geography, ecology, and math and practicing important language and social skills like effective communication and cooperation.
- **Middle level materials:** Students in grades 6-8 begin to explore population content in more depth. Lessons cover the historical details of world population growth and begin to investigate the complexities of economics, consumerism, and environmental degradation. Students are also asked to consider their own values and habits, as well as to communicate their thoughts and decisions to peers.
- **High school level materials:** In high school, students undertake complex tasks like analyzing and comparing data, evaluating existing policies and proposing solutions, and conducting and synthesizing research. Students also tackle challenging topics like that of migration, wealth disparities, environmental and social justice, and resource scarcity.

The creation of new classroom materials is informed by both current issues and national educational standards and frameworks. Throughout the grade bands, PopEd materials encourage students to make sustainable decisions and to focus on solution-oriented thinking. This focus on forward-looking action helps ensure that classroom learning develops into positive impacts on students' communities and the larger world.

POPULATION EDUCATION WORKSHOPS

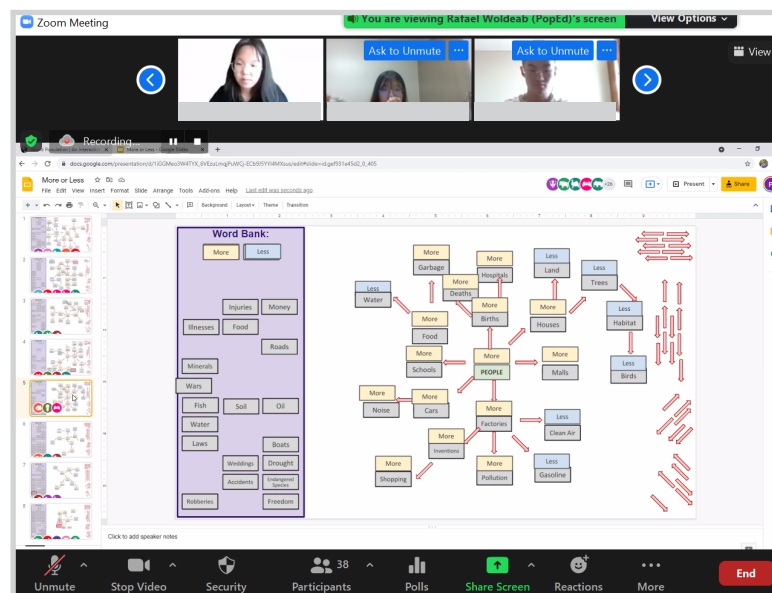
Population Education’s approach centers on training teachers in workshops where they learn how to use innovative, hands-on activities to teach about timely real-world issues. We draw educators from K-12 classrooms, outdoor education centers, museums, and zoos, as well as university methods courses. The goal of Population Education’s training workshops is to give educators classroom resources and strategies for teaching population concepts and the related environmental and social issues.

- **Audiences:** Population Education workshops happen with current K-12 teachers at teachers’ conferences, school district in-service programs, and non-formal education sites, as well as with pre-service students at college and university teacher education programs. Working with pre-service students, who will soon get their teaching degree, is a benefit for several reasons: 1) We are able to reach students who will move on to teach in a variety of school settings (rural, urban, and suburban school districts; public, independent and parochial). Many may teach in districts that cannot afford to send teachers to education conferences or other costly professional development programs. 2) Pre-service students are still in the process of establishing their annual lesson plans and have not become dependent on particular textbooks. It is easier to be inserted into a new teacher’s developing resource library than a veteran teacher’s set plan. 3) The vast majority of workshops for future teachers are held during their class meeting time and, as a result, we have a guaranteed audience (unlike conference settings where attendance can vary).
- **Technique:** During workshops, educators are exposed to a variety of teaching strategies designed to actively involve students in the learning process: role-playing simulations, cooperative learning exercises, debates, labs, and values-clarification activities. A typical workshop might find educators reading an interactive story on water pollution, “mining” chocolate chips from cookies, or slicing sections of an apple (a symbolic Earth) to represent the many ways land is used. Teachers actively engage in the lessons during a workshop, participating as if they were students. This makes the experience both effective and fun. Both in-person and online workshops are tailored for the grade levels and subjects taught by the participants.



Pretending to be panthers in a simulated habitat, teachers count their “prey” to learn about the concept of carrying capacity.

- Formats:** Teacher training workshops take place both in-person and online. This offers maximum flexibility for our workshop sponsors, and allows us to expand our reach to new audiences. We offer both synchronous (live) online workshops and asynchronous workshops that educators can watch on their own time. In our live online workshops, we use a combination of digital tools like Google Sheets, Google Slides and Jamboard, as well as online meeting functions like breakout groups and polls, in order to engage participants in the learning process. A typical online workshop might find educators moving pieces of “prey” into a virtual panther den on a Google slide, graphing population pyramids on a Google sheet, or having small group discussion about eco-dilemmas in Zoom breakout groups. Asynchronous workshops feature recordings of PopEd staff demonstrating or describing several PopEd lessons. In-person and online workshops are similar in terms of objectives, handouts, and learning style.



Students work in breakout rooms using a Google slide to create word webs around the phrase, “More People,” in an online pre-service workshop hosted by the Gyeongin National University of Education in South Korea.

- Take-home curriculum:** Participants in both models receive complimentary teaching materials. Elementary teachers receive our K-5 curriculum, *Counting on People: K-5 Activities for Global Citizenship*. Middle school teachers take home our grades 6-8 curriculum, *People and the Planet: Lessons for a Sustainable Future*, and high school teachers receive our curriculum for grades 9-12, *Earth Matters: Studies for our Global Future*. Teachers who cover a range of these grades receive our K-12 curriculum, *Teaching Population*. Each of these curricula include 40 – 60 lesson plans that are matched to national and state level content standards, and include supplemental teaching materials like student background readings, case study readings, infographics, student book lists, and more.
- Follow-up support:** After workshops, Population Education provides teachers with program updates and additional classroom resources through our bi-monthly newsletter, *The Population Educator*. Educators can also opt-in to receive updates on additional opportunities like webinars, our student video contest, and our online graduate course.

POPULATION EDUCATION TRAINERS

Since 1987, our network of teacher trainers, who volunteer their time to share Population Education activities with other educators, has made it possible to greatly expand our outreach to more teachers in diverse areas of the country. Currently, there are over 700 members in the Trainers Network, throughout the U.S. and Canada, and several countries abroad. The Network includes college and university faculty, K-12 teachers, adult educators, and non-formal educators at nature centers, museums, and zoos. Trainers are carefully selected based on their education experience and are highly respected as exemplary educators within their communities. In addition to receiving training from staff and Network members in the field, most have attended one of Population Education’s Leadership Institutes where they receive in-depth training from PopEd staff.

In advance of every workshop, trainers receive support from PopEd staff through assistance arranging logistics, help with planning their agenda, regular email and phone consultation, and the delivery of needed workshop materials. After workshops, participant feedback in regard to trainers is collected and used to provide additional support and training to individual facilitators when necessary. Network members are also reimbursed for basic workshop expenses. The Population Education Trainers Network enables us to present workshops very economically. Over the past two years alone, trainers contributed \$278,100 in in-kind training hours.¹



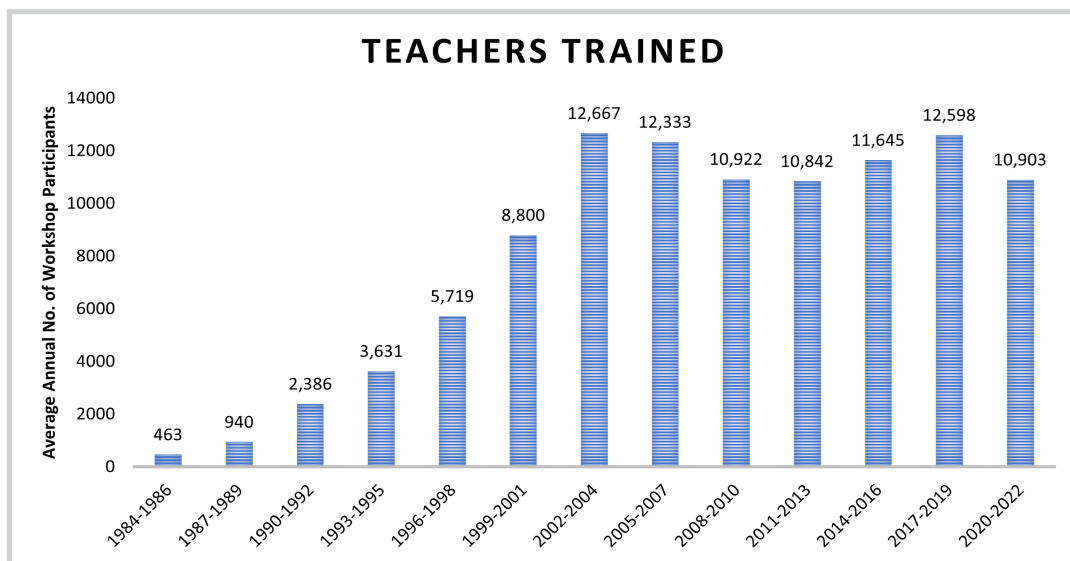
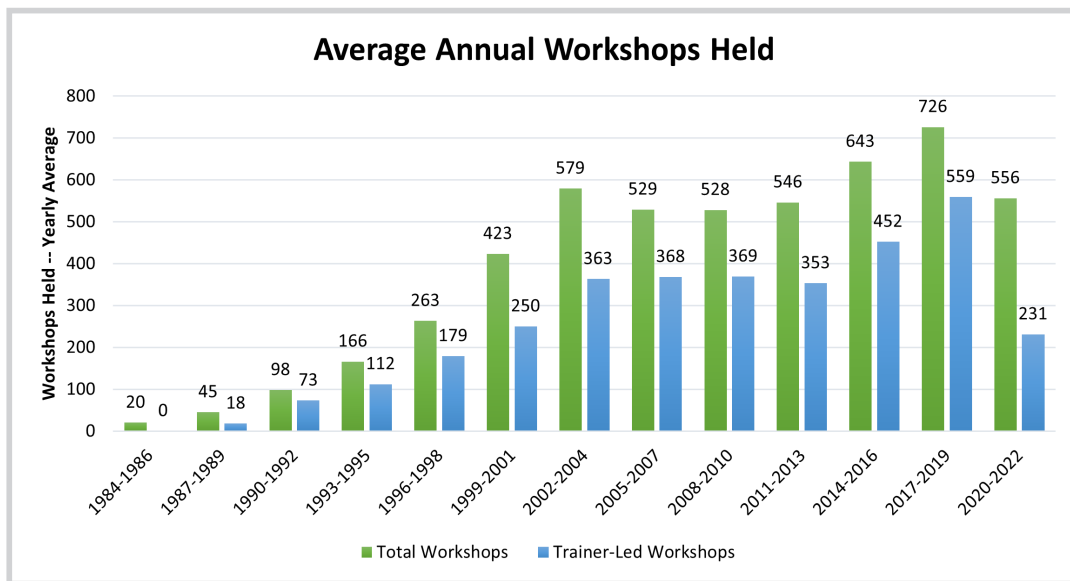
Educators participate in a river pollution lesson facilitated by a trainer at the National Association for the Education of Young Children conference hosted in Ohio.

PROGRAM WORKSHOP HISTORY

Population Connection’s Population Education Program (then ZPG’s Population Education Program) was started in 1975 with the mission to provide educators with teaching activities and materials to help them cover population topics effectively in the classroom. However even early on, we knew that “seeing is believing” and that our outreach would be more effective if teachers could participate in the activities during workshops to see how effective they would be in their classrooms.

¹ Figure based on a contribution of \$600.00 per workshop. This is based on an hourly rate of \$75.00 for eight hours of preparation, presentation and follow-up work on the volunteer educator’s part.

Before the creation of our Population Education Trainers Network, workshops were led by only one or two staff members at national and regional conferences, and we presented roughly 20-30 workshops each year. In the spring of 1987, we began recruiting educators to become Population Education trainers. Since then, our Trainers Network has continued to expand, allowing us to reach more and more educators through hands-on workshops in a wide variety of venues and locations. Today, our Network includes nearly 700 workshop facilitators – university education faculty, K-12 teachers, and non-formal educators at zoos and nature centers – who lead hundreds of workshops a year and help us reach thousands of educators. The graphs below show the history of Population Ed workshops and teachers trained from 1984 through present day.



While the number of trainers in our Network has consistently correlated with the number of workshops led and teachers trained, the following factors have had an impact as well, and can account for some of the fluctuations in the graphs.

1. Size of the PopEd staff coordinating workshops: This has fluctuated over the years based on financial resources. It takes many staff hours to recruit new volunteers to the network, nurture their participation, and coordinate their workshop activities.
2. COVID-19 pandemic: Many education conferences and pre-service workshops were canceled as a direct result of the pandemic in 2020 and 2021. We also canceled our train-the-trainer Leadership Institutes those years, which had a significant impact on trainer activity levels.
3. Declining enrollment in Teacher Education: The education field has seen a long-standing decline in the number of students entering teacher training programs. According to a 2022 report by the American Association of Colleges for Teacher Education, the number of students completing traditional teacher ed programs dropped by 35% between 2008 and 2019. While COVID-era data is not yet available, on surveys conducted by AACTE in 2020 and 2021, 1 in 5 institutions reported an 11% or greater decline in enrollment for undergraduate education programs.² Declining enrollment around the country has led to closures in education programs as well as canceled courses, which is impacting our workshop numbers and the size of our workshop audiences.

Despite these challenges, we are striving to boost our workshop numbers to pre-pandemic levels and find new audiences of current and future teachers. To this end, we are implementing a combination of efforts including new strategies in workshop outreach, improved email deliverability campaigns, and increases in our online workshop presence.

PROGRAM ACCOMPLISHMENTS

Coordinating and facilitating professional development workshops around the U.S. and Canada, along with training new facilitators, is a central part of the PopEd program. But in addition to these efforts, we continue to develop new classroom resources for educators and to increase awareness about our program. The lists below highlight the main accomplishments across the PopEd program in 2021 and 2022 and upcoming efforts of the PopEd program in 2023 and 2024.

2021-2022 Program Accomplishments

- Shared teaching resources with teachers and future teachers. Staff and Network members:
 - Trained 20,077 educators to use Population Education lessons.
 - Conducted a total of 1,114 teacher training workshops.
 - 553 pre-service workshops on 158 college and university campuses.
 - 277 sessions at teaching conferences.
 - 35 workshops at in-service events hosted by K-12 schools and districts.
 - 249 sessions at Advanced Placement (AP) Summer Institutes, sponsored by The College Board.
- Held a national, two-day Leadership Institute in Ashland, Massachusetts (July 2022), training 26 new Network members to lead PopEd workshops.

² Will, M. (2022, March 22). Fewer people are getting teacher degrees. Prep programs sound the alarm. Education Week. <https://www.edweek.org/teaching-learning/fewer-people-are-getting-teacher-degrees-prep-programs-sound-the-alarm/2022/03>

- Conducted two training webinars for members of our facilitator Network – one in December 2021 to demonstrate lesson plan updates, and one in November 2022 to mark the “Day of 8 billion” and discuss the updated population projections from the U.N.
- Hosted a series of panel discussions featuring select PopEd trainers as speakers on topics ranging from social emotional learning to inclusion in secondary STEM classrooms, and civics education.
- Implemented a quarterly, thematic marketing calendar to guide blog posts and resource sharing on our social media accounts. The themes include timely issues related to population growth as well as trending topics in education.
- Offered 8 public webinars to coincide with our quarterly marketing themes, with a total of 405 educators in attendance.
- Completed lesson plan, reading and infographic updates and enhancements on our middle school curriculum set, *People and the Planet: Lessons for a Sustainable Future*.
- Completed lesson plan, reading and infographic updates and enhancements on our high school curriculum set, *Earth Matters: Studies for Our Global Future*.
- Ran two cycles of our annual student video contest. In 2021 the contest drew over 2,200 video submissions from over 3,000 students around the world. The 2022 contest had even more participation with over 2,600 video submissions from 48 countries. In the fall of 2022, the *World of 7 Billion* contest changed its name to *World of 8 Billion* to reflect global population hitting 8 billion. A new website was created to mark this transition.



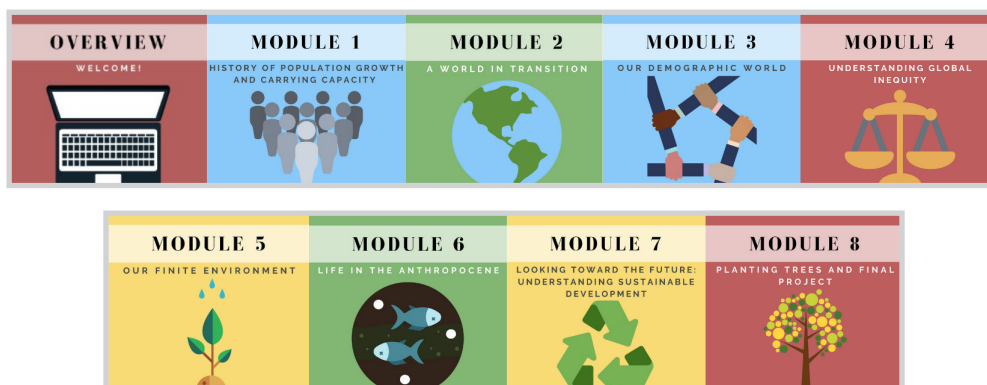
World of 8 Billion contest topics from 2021-2022. Student videos connect population growth to their chosen topic and highlight a sustainable solution.

- Ran four semesters of our online course *Making the Population Connection: Exploring the Human-Environmental Nexus in Today's Middle and High School Classroom*. Over those 4 semesters, 64 teachers took the course, with 60 receiving Continuing Education Credits (CEUs) and 54 receiving additional graduate level Education credit (science education or general education graduate credits) through Adams State University in Colorado. In 2022 the course welcomed a new instructor, Dr. Jo Beth Oestreich, a PopEd trainer and professor from Texas State University.

- Collaborated with AP College Board Consultants to provide resources for AP Institute trainings in five different courses: AP Environmental Science (APES), AP Human Geography (APHG), AP World History (APWH), AP US History (APUSH), and AP US Government and Politics (AP USGP). In 2021, we worked with 42 different consultants to share resources at 136 workshops, reaching 2,018 AP teachers. In 2022, we worked with 36 consultants to reach 1,687 AP teachers through 114 AP Institute workshops.
- Posted four to five new blogs each month on our program website, drawing significant traffic to the site.
- Remained consistently active on Facebook and X (formerly Twitter). With 1,817 Facebook followers and 1,425 X followers, both social media platforms provide unique opportunities to interact with educators and to continue to expand our audience.
- Produced 12 issues of our teacher’s e-newsletter, *The Population Educator*, to provide workshop participants and other interested educators with relevant articles, resource reviews, teaching activities, and upcoming workshop information. Each issue was emailed out to over 11,300 educators.
- Produced bi-monthly issues of *The Population Education Gazette*, an electronic newsletter for our volunteer trainers. The newsletter provides updates from our program as well as highlights from current news stories relating to population issues.

Upcoming Population Education Efforts, 2023-2024

- Complete the 2023-2024 *World of 8 Billion* student video contest, including: accepting entries, preliminary and final judging, awarding cash prizes, and promoting contest winners to the media.
- Continue to offer our online graduate course, *Making the Population Connection: Exploring the Human-Environmental Nexus in Today’s Middle and High School Classroom* in partnership with Adams State University. The course will be offered once or twice each year, dependent on teacher enrollment and class size.



Online graduate course modules.

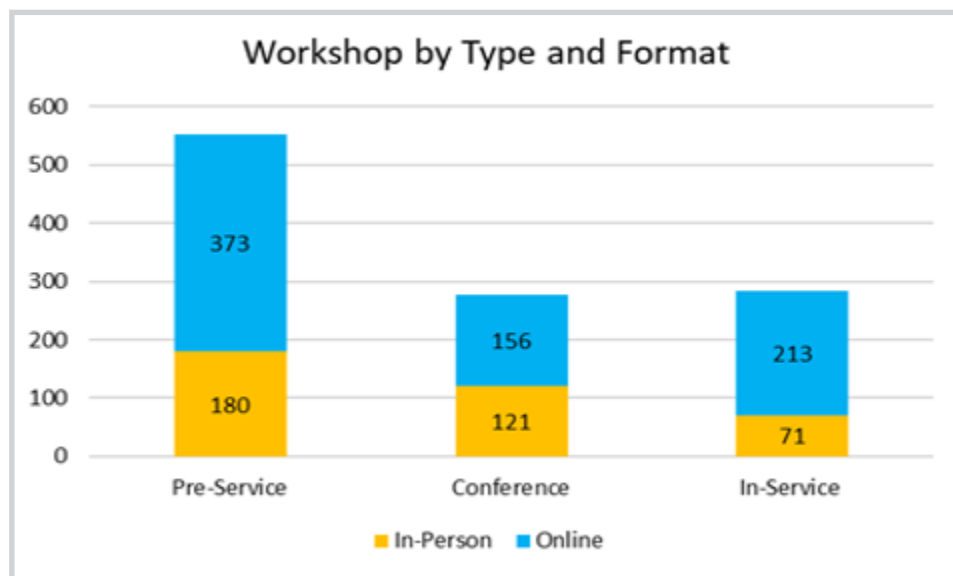
- Finish updates on our elementary curriculum kit, *Counting on People*. New lessons will have more timely and engaging teaching strategies and will be published on an ongoing basis, as they are completed.

- Complete updates of our two classroom posters, *A Quick Trip to 8 Billion* and our *World Population Map* (cartogram). Both posters will be getting data updates and visual overhauls, as well as new accompanying lesson plans.
- Update PopEd’s library of demo videos to match updated lesson plan content and procedures.
- Complete updates on our elementary and secondary level Spanish/English lesson packs, *Nuestro Mundo, Nuestro Futuro*.
- Create new downloadable lesson packs with adaptations for supporting the teaching of English Language Learners in K-12 classrooms.
- Facilitate at least eight PopEd hosted webinars focused around each of our marketing quarter themes. These webinars are marketed to K-12 teachers in our network and provide continued professional development for educators working to include population issues in their instruction.
- Continue and expand our partnerships with AP consultants around the country.
- Conduct workshop outreach and cultivate additional trainer and sponsor relationships throughout the U.S. and Canada.

2021-2022 WORKSHOP DATA

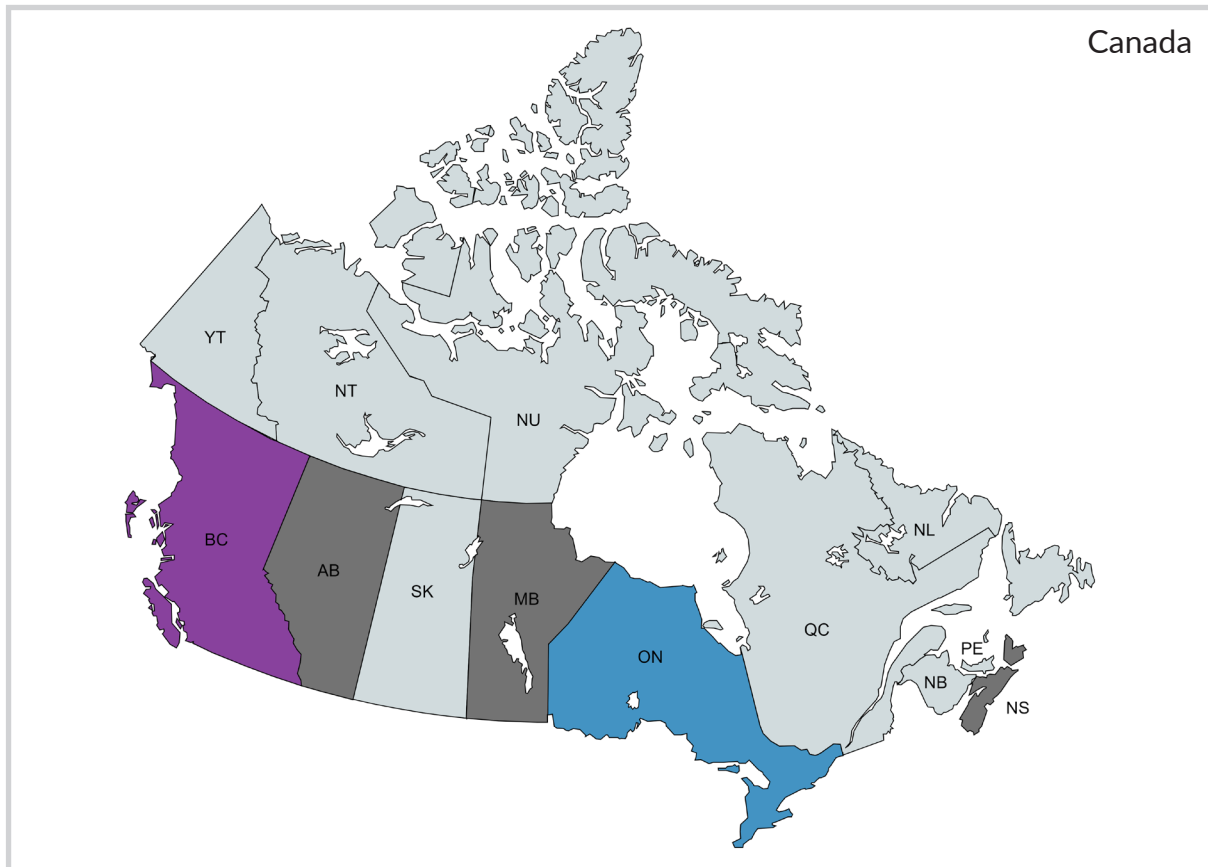
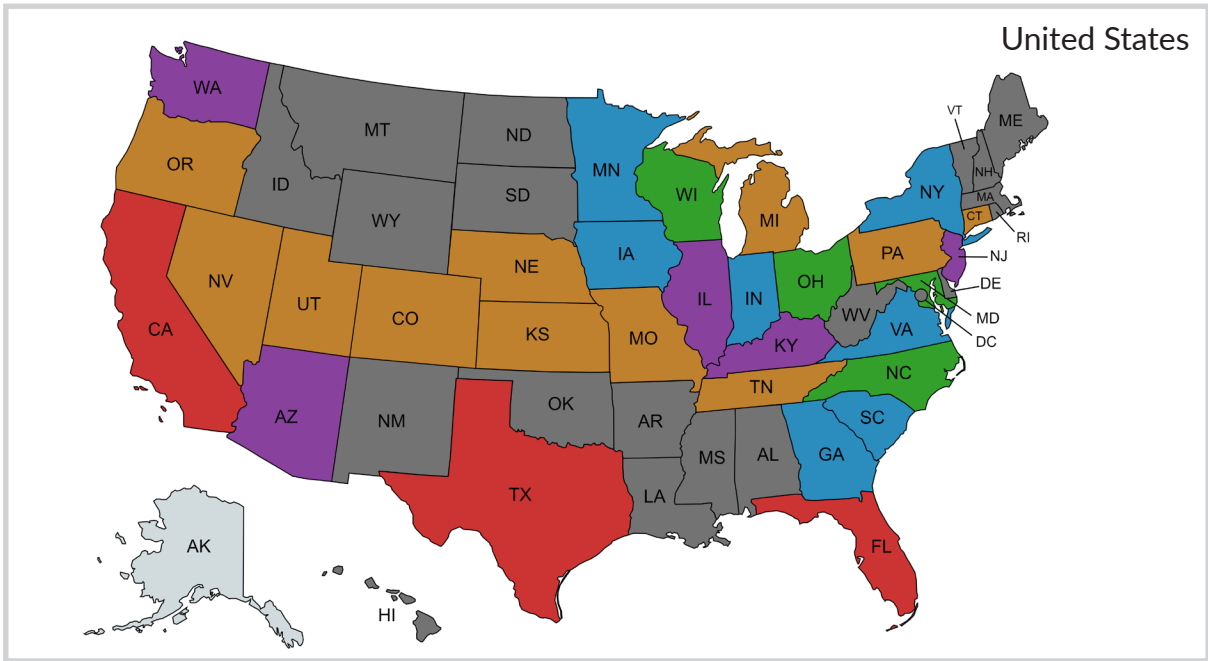
Between 2021 and 2022, Population Education provided teacher training workshops for 20,077 educators through 1,114 workshops. 66% of these workshops were conducted online, and 33% were conducted in-person. The vast majority of the online workshops (nearly 70%) were conducted in 2021 when the COVID-19 pandemic was still impacting the ability to gather for conferences and many colleges and universities were still offering remote classes. Approximately half of the workshops conducted in 2021 and 2022 happened in pre-service classrooms, 25% took place at teacher conferences, and 25% were part of in-service/professional development programming.

The below graph shows the distribution of the types of workshops that took place over the 2021-2022 survey cycle and whether they were held in-person or online.



In 2021 and 2022, Population Education conducted workshops in 49 U.S. states, the District of Columbia, six Canadian provinces, and three countries abroad. The maps on the following page show the amount of PopEd workshops in each U.S. state and Canadian province. A full list of the PopEd workshops that took place in 2021 and 2022 can be found in Appendix A.

Location Density



Number of Workshops: Dark Grey 1 - 9 Purple: 20 - 29 Green: 40 - 49 Red: 60+
 Brown: 10 - 19 Blue: 30 - 39 Yellow: 50 - 59

EVALUATION METHODOLOGY

FOLLOW-UP SURVEY

An online survey (see Appendix B) was designed to seek information from Population Education's 2021 and 2022 workshop participants. It asked participants to indicate what type of workshop they attended, their primary teaching focus, if and how they've been able to use PopEd materials with students, and how the materials have impacted their students.

The survey was conducted online using SurveyMonkey to administer the questionnaire. SurveyMonkey allowed us to receive responses anonymously and also filter results to easily find correlations. The online survey was sent to all 2021 and 2022 workshop participants for whom we had an email address - 6,086 participants in total. We received 489 completed surveys, a return rate of approximately 8%, which is consistent with the prior survey cycle. To encourage responses, we offered a complimentary curriculum set to anyone who completed the survey. Respondents were also entered in a raffle to win a \$50 Amazon gift card, with 10 winners being selected at random after the survey closed.

The data from this survey cycle is very consistent with previous surveys and we see many of the same trends that we've seen in past years. We recognize that there are inherent constraints associated with data gathered through any survey of this type. The sample of participants available to study consists of those who gave us their email, those whose emails are still active, and those who opted to complete the questionnaire. Opt-in surveys are by nature "self-selected." In this case, educators who did respond may be those who are generally more active than those who did not respond.

EVALUATION OBJECTIVES

- To profile 2021 and 2022 workshop participants and to evaluate their diversity in terms of subject and grade-level taught in order to assess our outreach efforts.
- To assess the quality of the Population Education workshop experience and materials from a teacher's perspective.
- To assess how teachers are using the materials they receive in workshops.
- To estimate the number of students reached by educators trained during this two-year time span, as well as how those students have responded to Population Education lessons.
- To determine the effectiveness of our materials in meeting the demands of national and state level teaching standards.
- To determine which obstacles to teaching Population Education were most often encountered by workshop participants and propose ways to address them.
- To use the information gleaned from the evaluation process to further strengthen teacher training workshops, our materials, and the other components of our program.

SURVEY RESULTS

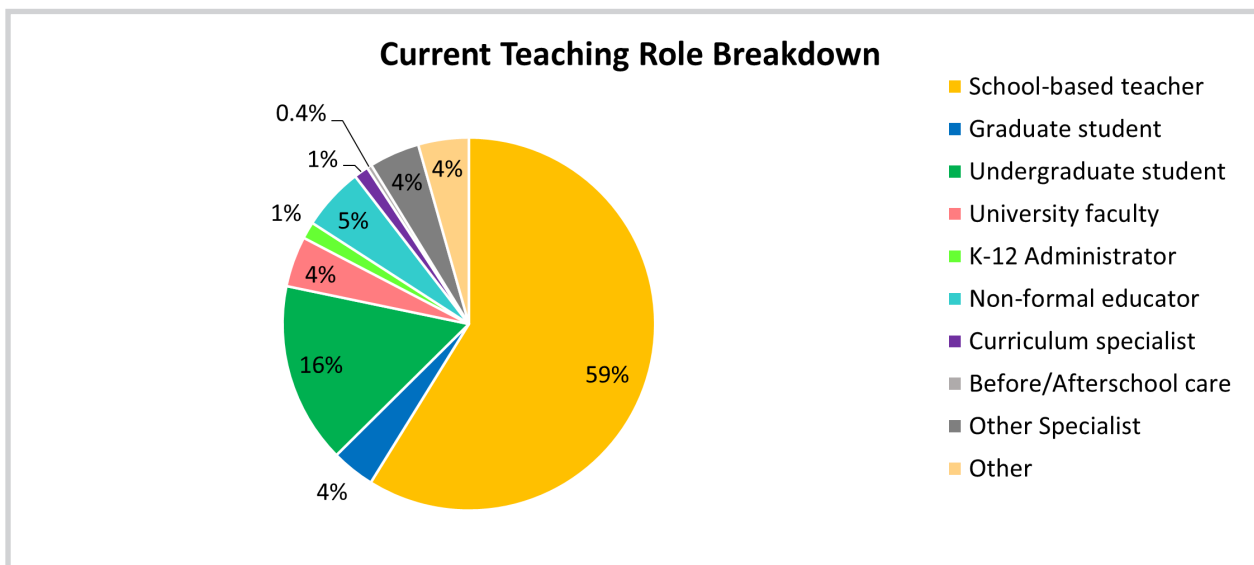
RESPONDENT PROFILE

Location

The vast majority of survey respondents live in the United States (80%), while about 15% reside in Canada, and about 5% live in countries abroad. The percentage of respondents from abroad is more than double any past survey cycle and is indicative of the wider reach we achieve through online workshops. These respondents represented 10 countries, with those from the Philippines being the largest share. Of those living in the U.S., Ohio was the most represented with 9.4% of respondents, followed by California with 7.4% of respondents, and Texas with 6.6% of respondents. Of those living in Canada, Ontario was the most represented province with 67.1% of respondents, followed by British Columbia with 29.1% of respondents.

Current Role

The majority of people who took the survey fell into two main categories: current school teachers and college or university students (undergraduate and graduate) enrolled in teacher preparation programs.



Non-formal educators include those who work at museums, parks, zoos and nature centers. For those who marked “other,” the majority listed their role as an early childcare teacher, education counselor, retired biologist, science department head, homeschool teacher, or a very specific role such as Project Learning Tree State Coordinator, or grant program staff.

For the purposes of comparison, undergraduate and graduate students were assumed to be pre-service educators. All other categories were assumed to be experienced educators.

RESPONSE TO POPULATION EDUCATION WORKSHOPS

PopEd offers both in-person and online workshop options. Across delivery modes, our approach is to have teachers participate in the activities as if they were students, a method we've found to be both effective and memorable. Because of the two different workshop delivery methods, respondents were asked to indicate if they attended an in-person or online workshop – 39% of respondents attended an in-person workshop and 44% attended an online workshop. We collected data on the effectiveness of both workshop models.

Respondents' Rating of the IN-PERSON Workshop Model

The graph below shows how respondents compare the in-person PopEd workshop with other professional development workshops they've attended in terms of **Content**, **Usefulness**, **Hand-Outs**, **Presentation Quality**, and **Ability to Integrate Learning into Teaching**.

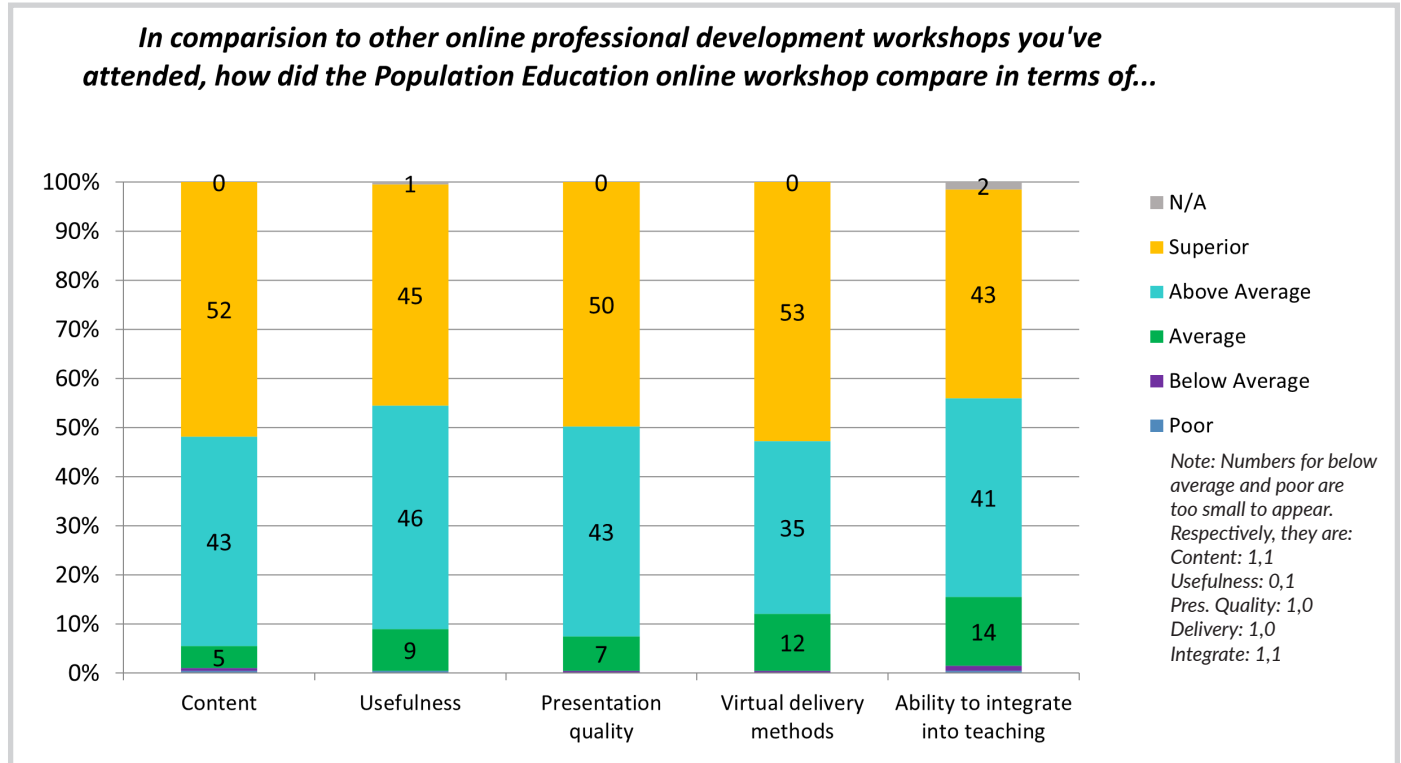


On all five criteria, the vast majority of respondents rated the Population Education workshop as a 4 or 5 on a 5-point scale (with 5 as the highest rating). Out of 375 responses, the following percentages gave a Superior or Above Average ranking.

- Content: 91.6%
- Usefulness: 90.9%
- Hand-outs: 80.3%
- Presentation quality: 91%
- Ability to integrate into teaching: 80.3%

Respondents' Rating of the ONLINE Workshop Model

The graph below shows how respondents compare the online PopEd workshop with other online professional development workshops they've attended in terms of **Content, Usefulness, Presentation Quality, Virtual Delivery Methods, and Ability to Integrate Learning into Teaching.**



On all five criteria, the vast majority of respondents rated Population Education online workshops as a 4 or 5 on a 5-point scale. Out of 200 responses, the following percentages gave a Superior or Above Average ranking.

- Content: 94.5%
- Usefulness: 90.5%
- Presentation quality: 92.5%
- Virtual delivery methods: 88%
- Ability to integrate into teaching: 83%

Of these respondents, 78% attended a live/synchronous online workshop, 22% attended an asynchronous webinar. The high ratings remain consistent across these different online formats and show that regardless of delivery method, educators found PopEd webinars to be useful and a step above other online professional development workshops.

Whether in-person or online, our staff and trainers routinely receive comments from participants that Population Education workshops are more interesting, engaging, and useful than other professional development workshops they have attended. We attribute this to four primary factors: 1) the innovative, hands-on curriculum; 2) the experience and skills of our workshop facilitators;

3) our adaptive workshop model; and 4) the take-home materials that are up-to-date and classroom-ready. Additional comments about Population Education workshops can be found in Appendix C.

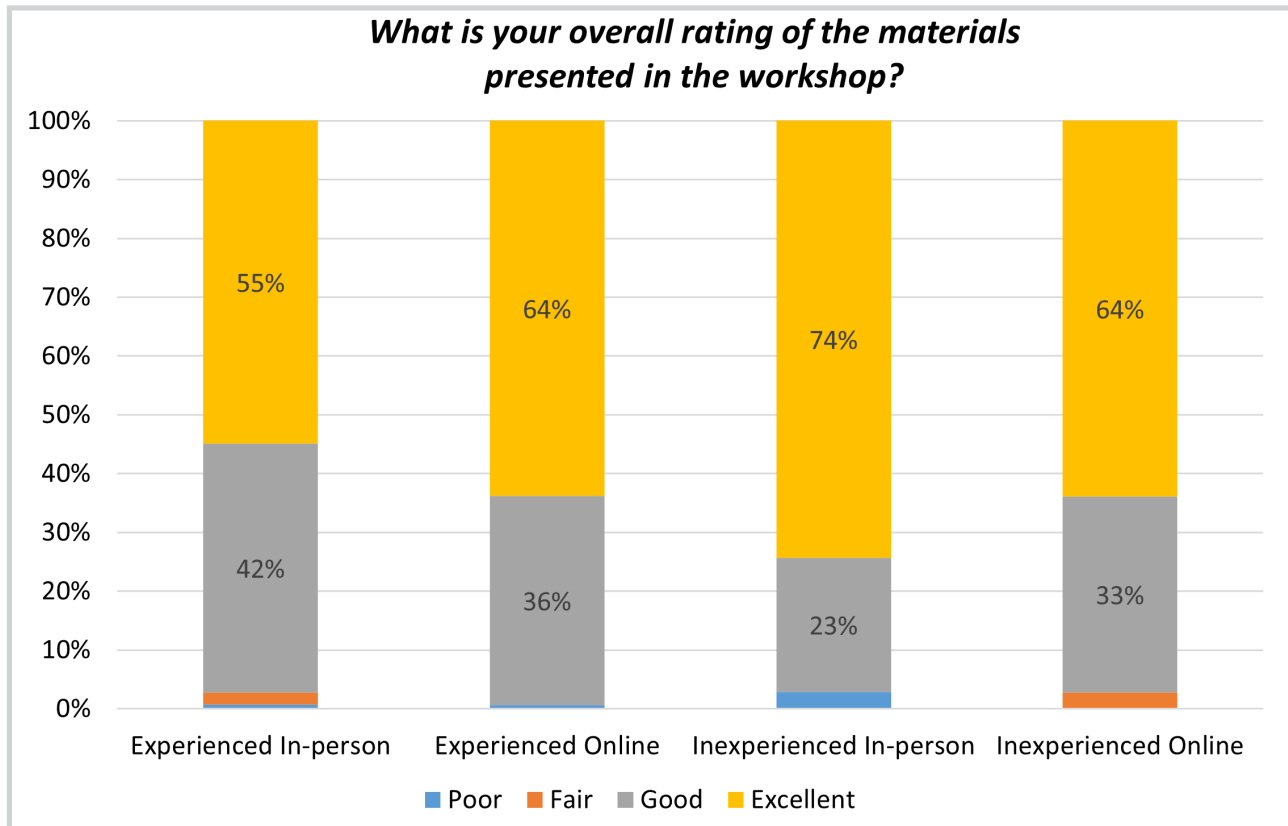
RESPONSE TO POPULATION EDUCATION MATERIALS

Materials Received

At the end of PopEd workshops, each participant receives access to a full curriculum of lessons plans, based on the grade level that they teach. During the 2021-2022 survey cycle, 32% of attendees received access to the *Teaching Population* curriculum, covering grades K-12. 33% of attendees received our elementary teaching kit, *Counting on People*, and 27% received access to our high school kit, *Earth Matters*. A smaller number (6%) received our middle school curriculum, *People and the Planet*. Less than 2% of workshop participants received specialized lesson packs after attending a workshop – *Nuestro Mundo*, *Nuestro Futuro*, a set of lessons for bilingual educators and *330 Million in the USA*, a set of lessons designed for teaching U.S. History.

Respondents' Rating of Materials/Activities (Online and In-Person Workshops)

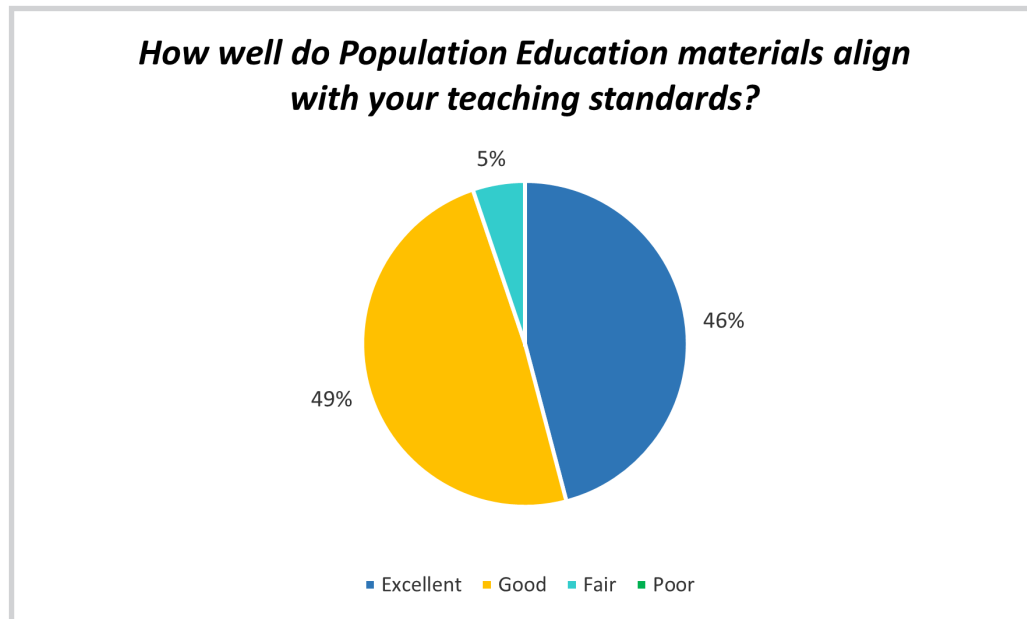
Whether attending an in-person or online workshop, the vast majority of participants found the materials presented to be Excellent or Good. Among experienced educators, 98% rated the in-person materials as Excellent or Good, and 97% rated the online materials as Excellent or Good. Among inexperienced educators, 95% rated the in-person materials as Excellent or Good and 97% rated the online materials as Excellent or Good.



Note: Numbers for fair and poor are too small to appear. Respectively, they are: Experienced In-person: 2,1; Experienced Online: 0,1; Inexperienced In-person: 0,3; Inexperienced Online: 3, 0

The graph below displays workshop participants' opinions on Population Education lessons in regards to meeting content standards. Addressing standards has become increasingly important for classroom teachers. The content standards are designed to outline the knowledge, concepts, and skills students should acquire at each grade level. By visiting the searchable standards database on our website, teachers can find correlations between Population Education activities and both national and state/province level standards to help guide their teaching. Our database is continually updated to reflect the latest standards.

Respondents were asked to indicate how well Population Education materials align with their required teaching standards.



Teachers overwhelmingly felt that Population Education materials were useful in meeting their required standards. Of the participants that answered this question, 95% responded to the question with Excellent or Good.

We also collected feedback on our alignment to two specific sets of standards. Common Core State Standards (CCSS) are the primary set of mathematics and language arts standards in the United States. Forty-one states have adopted Common Core and, of the survey respondents who follow them, 98% felt that the alignment of our materials to CCSS was Excellent or Good. The Next Generation Science Standards (NGSS) are national-level science standards that outline the principles and practices that students should master through their K-12 science instruction. Of the teachers who follow them, 97% found the alignment of Population Ed materials to be Excellent or Good. We make a specific effort to consider both of these sets of standards when updating and expanding our curricula, and, as a result, teachers see our lessons as a valued resource for meeting these requirements. Correlations to both CCSS and NGSS are available from our online searchable database.

When asked for additional comments on workshop materials, survey participants were quite enthusiastic, citing how the materials are thorough and interactive, easy to follow, well-planned, ready to use, and teacher-friendly. A full list of responses can be found in Appendix D.

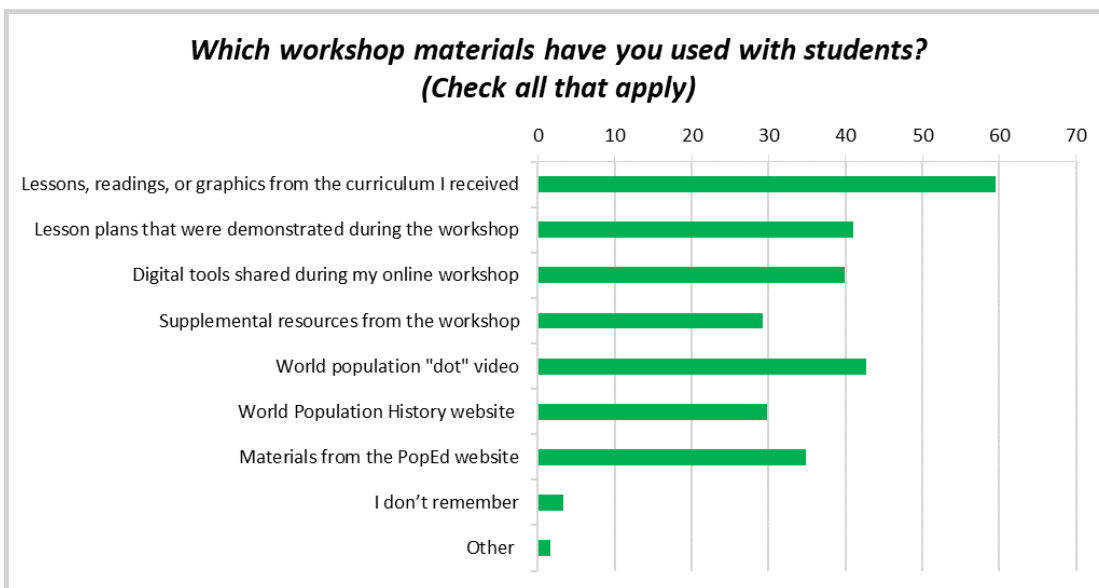
RESPONDENTS' USE OF WORKSHOP TRAINING AND MATERIALS

With the goal of supporting teachers' classroom instruction on population issues, we wanted to learn if and how teachers use the materials they received at their training. The chart below indicates respondents' use of the materials received in the workshop they attended. *Percentages are of those who answered 'Yes' to each respective question.*

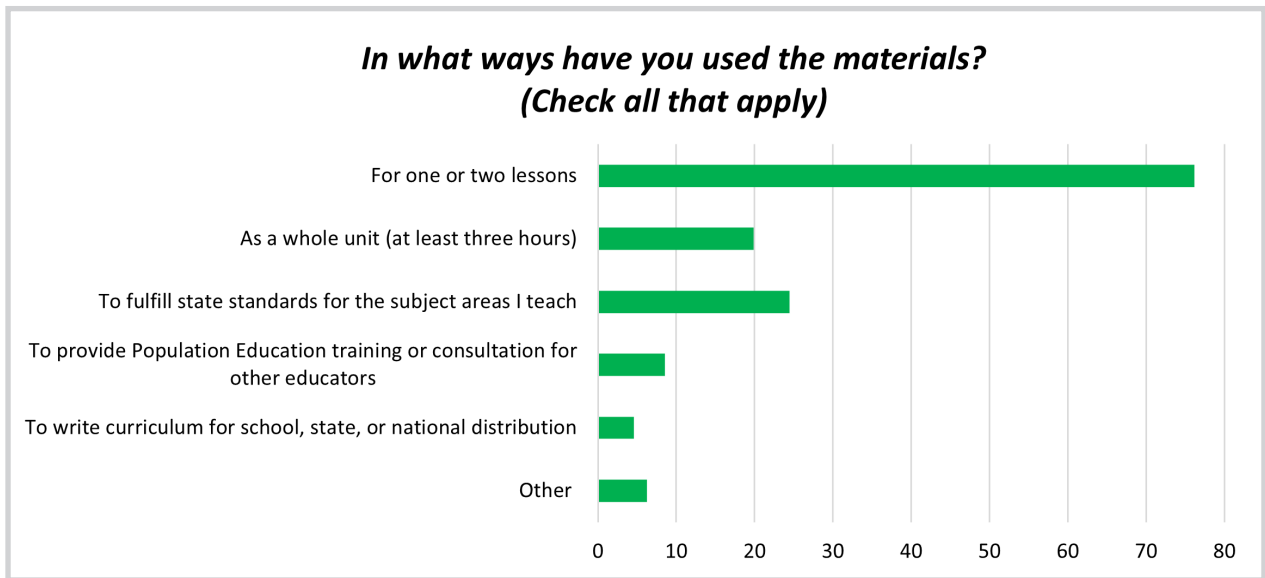
Question	All	School-Based Teacher	Graduate Student	Under-graduate Student	University Faculty	Admin & Curriculum Specialists	Non-Formal	Other Specialist	Other
Have you already used the materials/ activities obtained in the workshop you attended?	46%	46%	50%	32%	53%	46%	57%	53%	63%

After attending a workshop, nearly half of respondents (46%) have already used the workshop materials with students by the time they received this survey. This percentage was similar regardless of in-person or online attendance. When asked if they had shared information about the PopEd program or materials with other educators, over half (52%) indicated that they had. Moreover, over one-third of respondents who haven't yet used the materials have shared the resources with other educators. In other words, the majority of workshop participants found the resources useful for their classroom teaching and/or relevant to share.

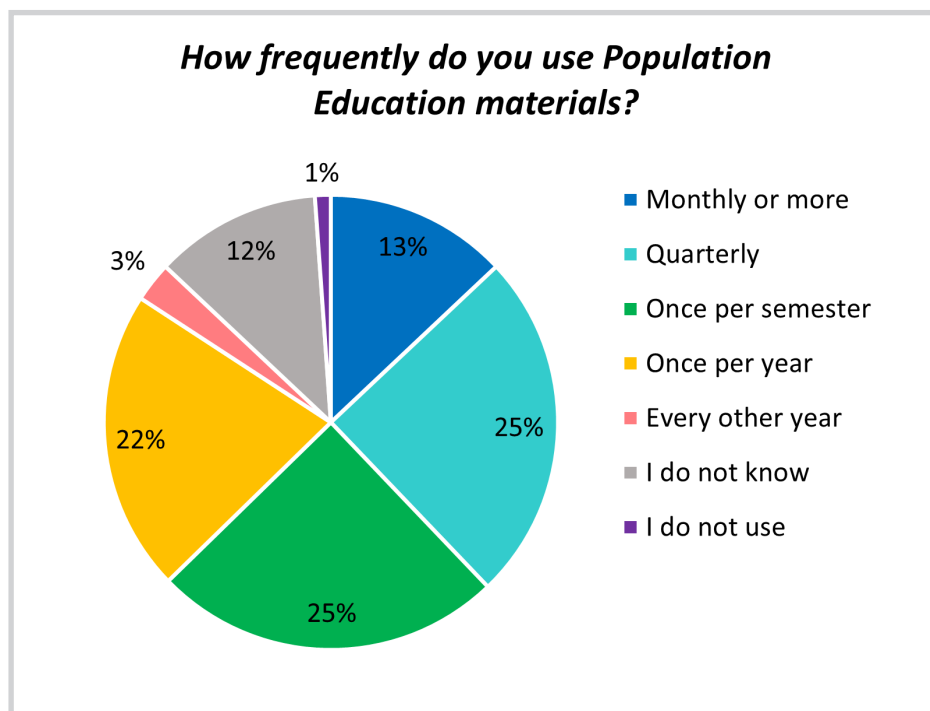
In addition to asking *if* they had used the materials, for the respondents who indicated they had, we also asked *what* materials they used. A majority (60%) have used the materials from the curriculum they received at their workshop and a large number are also using the supplemental resources we provide, including our "dot" video, posters, data sheets, and resources from our website. We were pleased to see that 40% of attendees had used PopEd's digital tools after attending a virtual workshop.



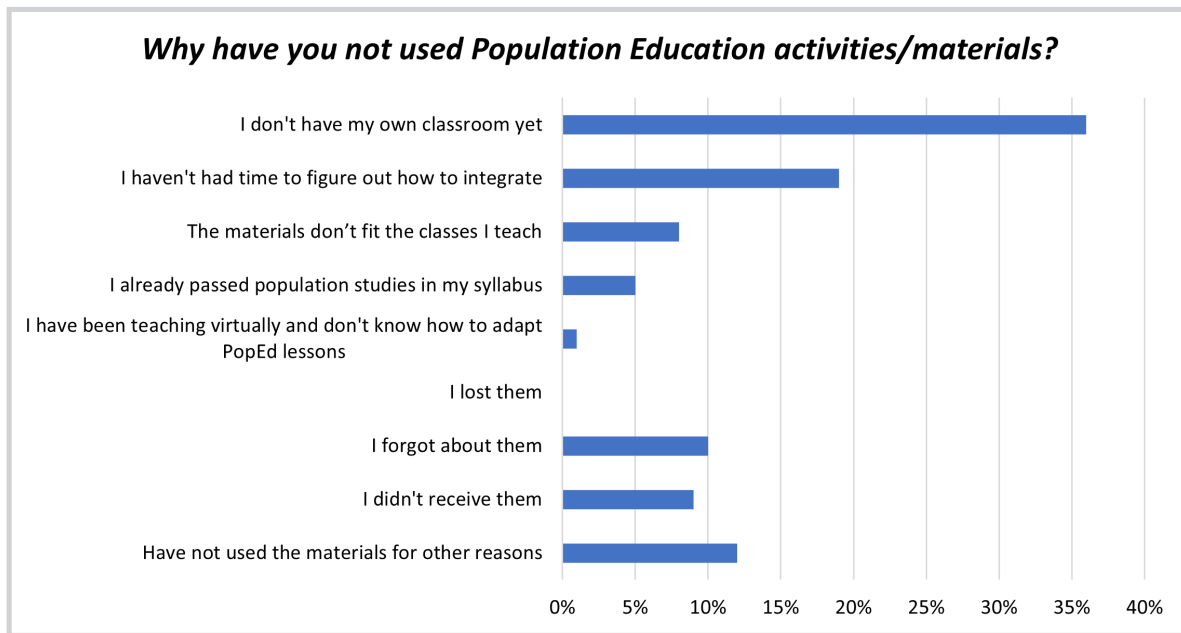
We also asked *how* respondents were using the materials they received in their classrooms. These answers are graphed below.



Respondents also indicated that they are consistently using our resources throughout the school year to supplement instruction on a variety of topics. Of respondents who have used our resources, 63% indicated using PopEd materials at least twice per year and 38% indicated using them four or more times per year. We attribute this to the variety of topics covered in our materials as well as the ease of integrating PopEd resources into content standards that are taught throughout the year.

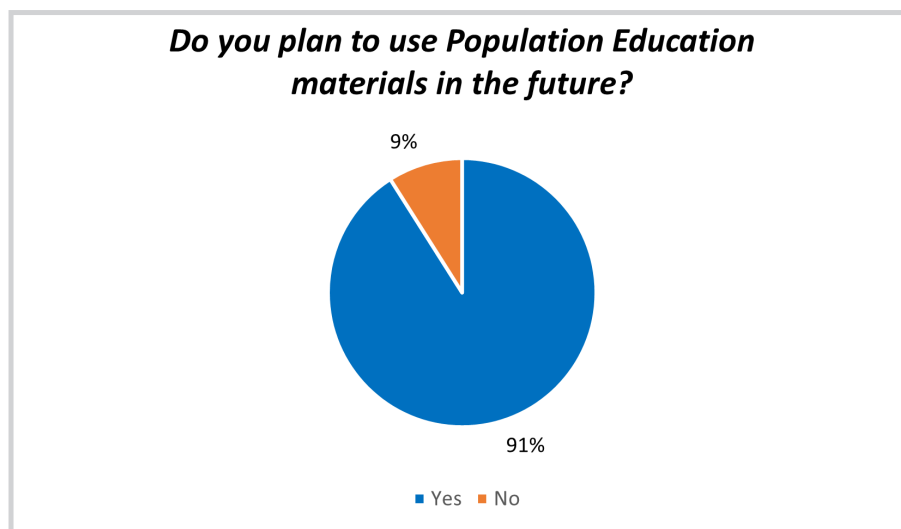


The graph below represents the respondents who had not yet used the materials received in the workshop at the time of the survey. The data shows that among these respondents, the primary reason for not utilizing the curriculum was simply that they were not in the classroom during the survey window. Many of the respondents who answered “Have not used the materials for other reasons” mentioned that the materials aren’t a good fit for what they teach or they weren’t teaching the appropriate course at the time. Some mentioned not having the time yet to explore the resources and that it is hard to find space in their curriculum. A couple people felt that discussing population issues in their classroom was problematic due to its history of racism.

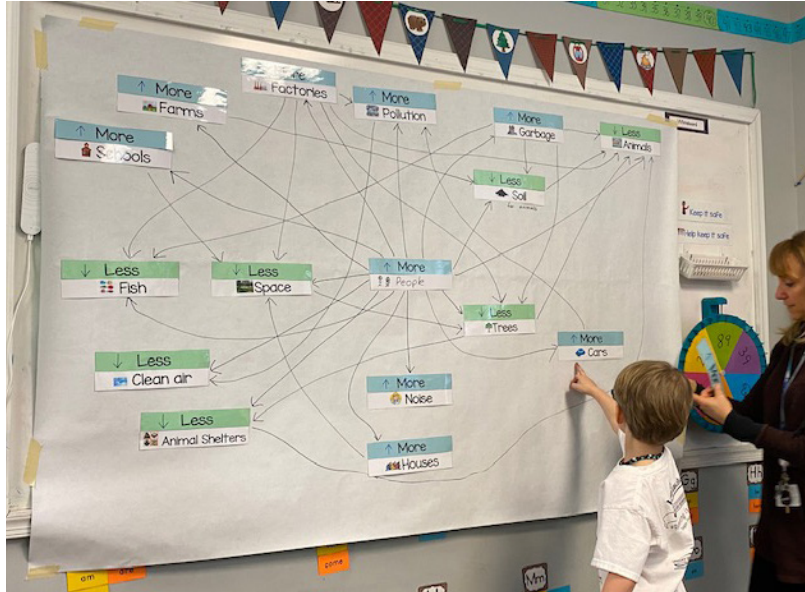


Participants' Planned Population Education Efforts

For those respondents who have not yet used our materials, we are encouraged to see that the large majority (91%) do plan to use them in the future. Respondents were asked to check all of the ways they may use the materials obtained in the workshop they attended. This year’s data was fairly consistent with previous years’ responses to the same series of questions. All respondents expressed varied and extensive planned use of Population Education materials.



- Over 60% of respondents plan to use one or two lessons and over one-third plan to teach a whole unit with our population curriculum.
- 41% of respondents would like to use Population Education materials to meet state content standards.



A Kindergarten student participates in the elementary activity, *More or Less*, to learn about the impacts of 'more people.'

STUDENT EXPOSURE AND IMPACT

Number of Students Reached

For workshop participants who have used the materials in the classroom, the questionnaire asked respondents to indicate how many students they reached with Population Education activities during the past school year. The following chart presents the breakdown of respondents who have used the materials based on their teaching role.

Role	Number of Respondents (who used materials)	Number of Students Reached	Average Number of Students Reached
School-based Teacher	101	4,408	43.6
Pre-Service Teacher	20	635	31.8
Other*	40	5,322	133.1
Total	161	10,365	64.4

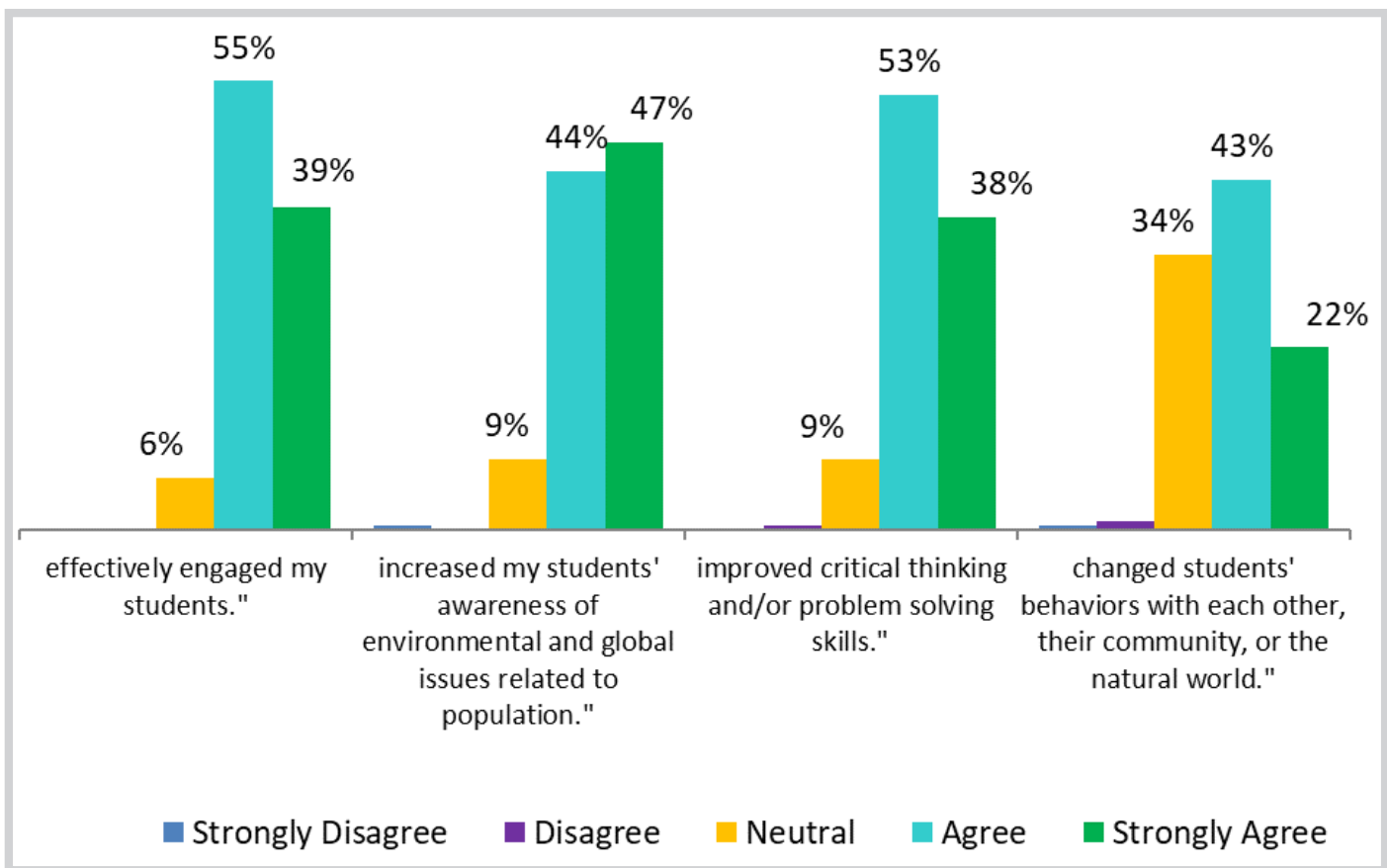
*includes non-formal educators, curriculum specialists, administrators, and content specialists

School-based teachers reached an average of 43.6 students each and even the pre-service (graduate and undergraduate education students) estimated reaching an average of 31.8 students, despite their limited teaching responsibilities. We expect that the number of students reached by pre-service teachers will increase once they have their own classrooms within the next one to

two years. Several non-formal educators and curriculum specialists indicated reaching very high numbers of students, indicating that this is very valuable audience for us to continue reaching. Given the number of teachers trained by Population Education workshops in past years, and the number who received activities from workshop participants, exhibit booths, or from educator’s publications, we project that over 3 million students are learning from Population Education classroom activities every year.

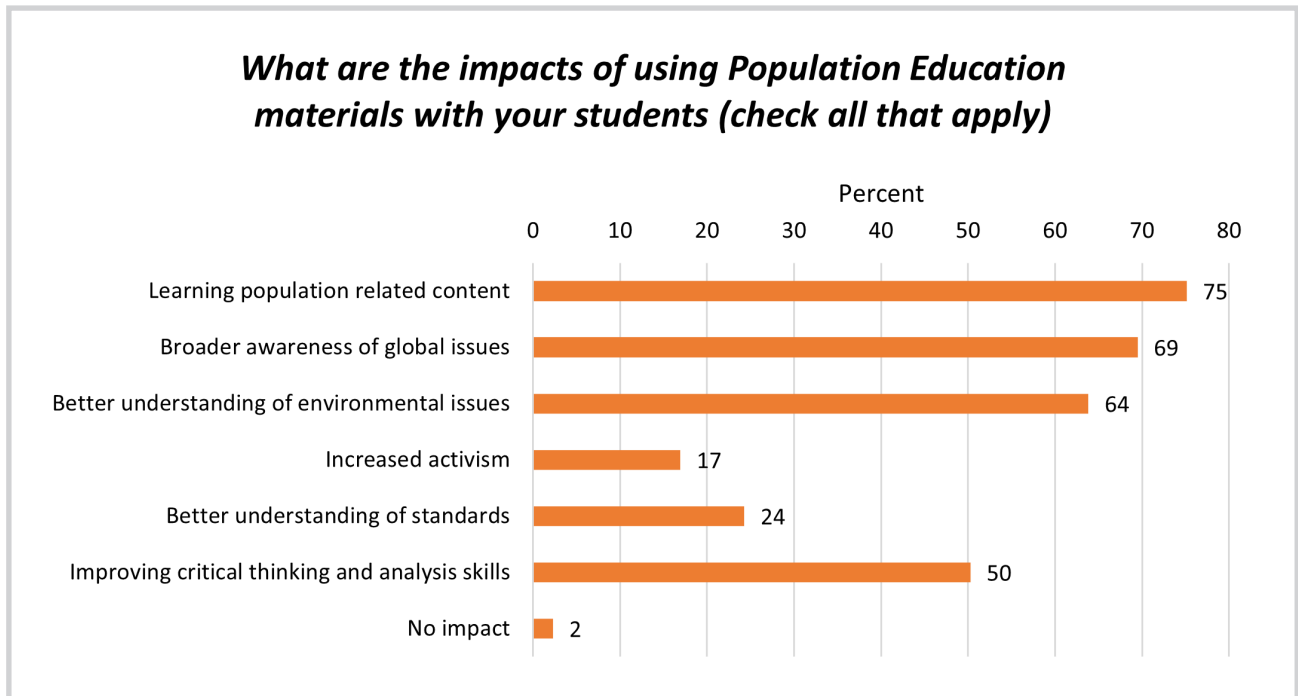
Student Response

While the online follow-up survey was directed towards teachers, our ultimate goal is to have a positive impact on students. Because we can’t directly ask the students what they think of the materials, we asked the teacher respondents to share their insights. The survey asked “Do you agree with the following statements – The Population Education materials I used in my classroom...”



The vast majority of teachers (94%) Strongly Agree or Agree that the activities effectively engaged students and 91% responded that the activities increased their students' awareness of issues related to population growth. Nearly two-thirds of teachers (65%) feel that Population Education activities changed students' behaviors with each other or the natural world. This shift in student behavior is an important statistic, demonstrating that our activities empowered students to turn their population knowledge into positive action.

To gain an even deeper understanding of PopEd's effect on students, we asked teachers to indicate additional ways their students are impacted by our teaching materials. Their responses are graphed below.



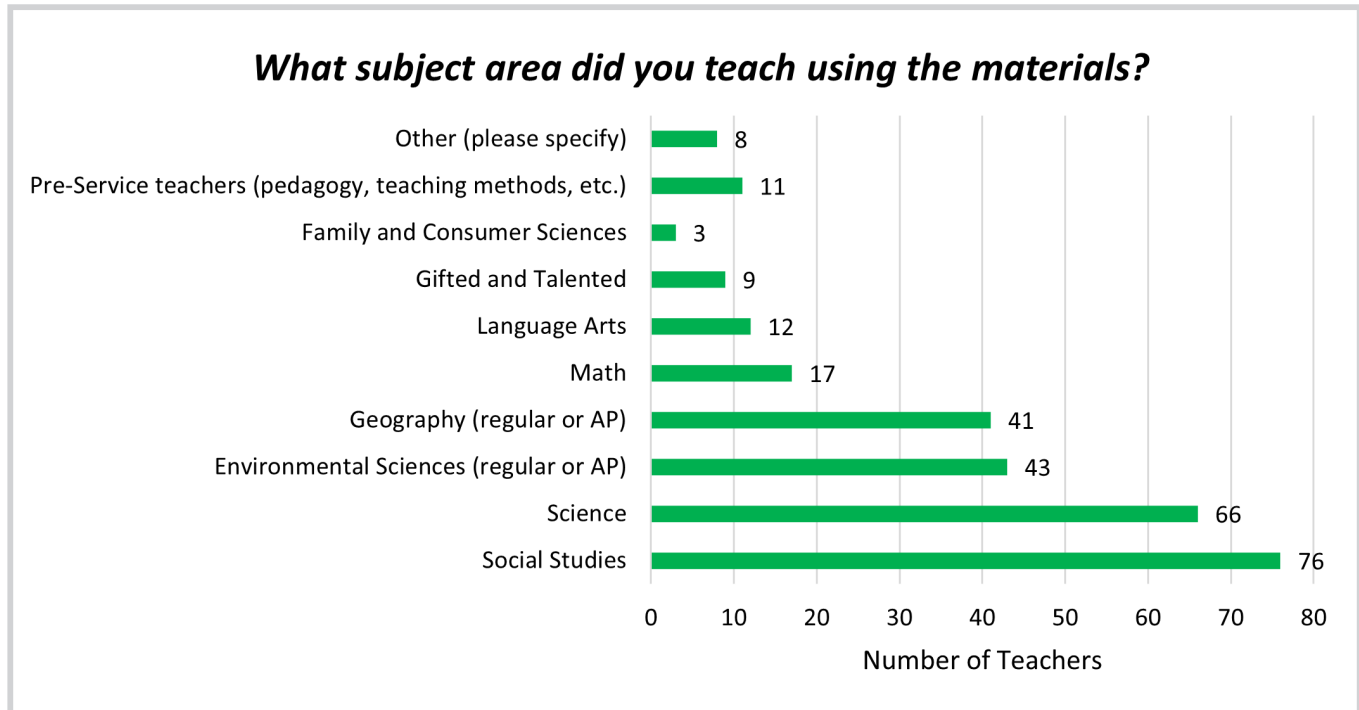
The responses indicate that teachers regard Population Education materials as highly effective classroom tools with significant and varied impact on student learning. Not only are students learning population-related content, they are also becoming more aware of global issues in general and are gaining the critical thinking and problem-solving skills that will be necessary to tackle those challenges. Additionally, teachers report increased activism in students, indicating that PopEd is inspiring youth to generate positive outcomes for our global community.

Activities Used

Teachers who responded that they used Population Education materials were asked additional questions about the activities used. On average, teachers used 3.5 activities with their students, which is similar to the last survey cycle.

Subject of Classes

Teachers who have used the materials in their class were asked “What subject area did you teach using the materials? Check all that apply.” There were 175 responses to this question and their answers are graphed below.



Science and social studies classes used the materials the most and, given the topics presented in our lessons, this distribution was to be expected. We also include Environmental Science and Geography (regular or AP) as a subject area choice and see that nearly half (48%) of teachers are using our materials in these courses. This is an 8% increase from the past survey cycle and a 15% increase from the 2017-2018 survey cycle. (Note: Teachers were allowed to select more than one subject, so there is some overlap in the responses. For instance, some teachers who selected Social Studies also selected Geography.)

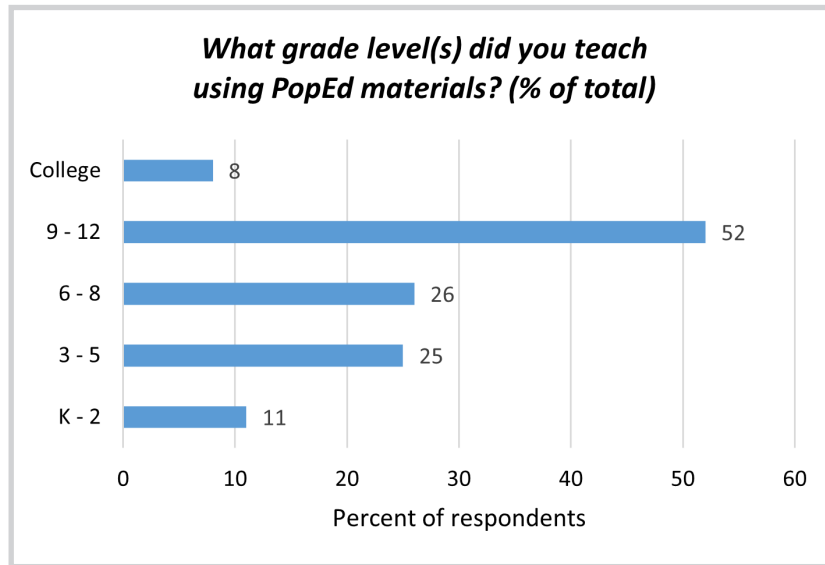
AP programs are a great avenue for PopEd resources. Both the AP Environmental Science and AP Human Geography frameworks have population units, and we strongly consider these two classes when we develop and update our high school curricula. Of 44 respondents who have used Population Education materials and teach an AP course, 43 of them, or 97%, have used our materials in these more specialized classes. We have done targeted marketing to AP teachers, and have significantly increased the number of AP Summer Institutes where our resources are shared, and it appears that those efforts have been effective.³

Responses in the ‘other’ category included specialty clubs or classes, fine arts, summer camp, and ESOL.

³ PopEd resources were shared at 250 AP Summer Institutes between 2021 and 2022, reaching 3,705 teachers in total.

Grade Levels

Teachers were asked “What grade level(s) did you teach using PopEd materials? (Check all that apply).” The chart below details the responses for teachers who have used our materials since attending a workshop.



The data indicates that 36% of the teachers who responded to the survey work with elementary students (K-5), while 26% work with middle grades and 52% work with high school students (Note: 175 people responded to this question. Because many teachers work with more than one grade band, the percentages do not add up to 100). It is not surprising to see that the majority of our respondents used PopEd materials with high school students. While we facilitate a lot of pre-service workshops for elementary audiences, those participants are less likely to respond to our survey, due to changes in their email addresses after graduating. The majority of conference and in-service sessions that we conduct are for middle and high school teacher audiences, whose email addresses tend to remain consistent over time, resulting in higher responses for teachers of those grade levels.

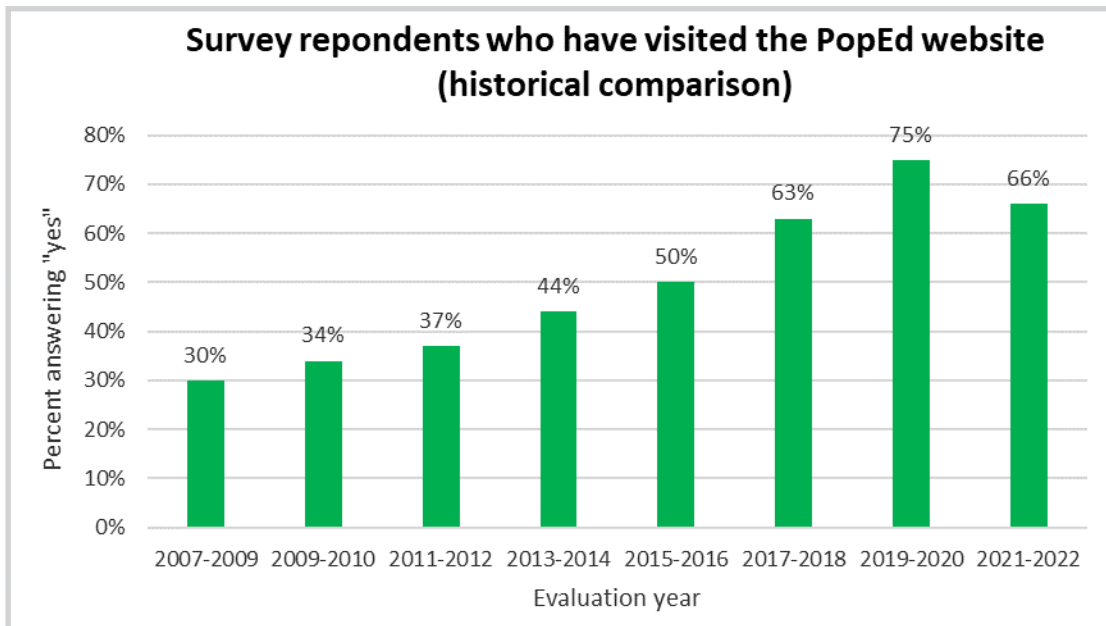
POPULATION EDUCATION WEBSITE

Our main program website (www.populationeducation.org) is designed to be a constant resource for educators and to provide on-going support of their Population Education efforts. We completed a redesign of the site in 2020 to improve the user experience and make it easier for teachers to find classroom materials.

In 2021 and 2021, the website had 1.86 million unique visitors. Of those who attended a PopEd workshop and took the survey, 66% said that they have visited the website. The website houses a variety of resources that teachers may find helpful after attending a workshop, including:

- A database where all PopEd lessons can be matched to both national and state/provincial level teaching standards for any grade and subject area.
- A library of demonstration videos explaining how to lead our most popular PopEd lessons.

- Recordings of past public Population Education webinars.
- Blogs that discuss current environmental and social issues in an education context.
- Information on our Trainers Network and further professional development opportunities with PopEd.



OBSTACLES

Obstacles to Participants' Population Education Efforts

The survey asked “**Have you encountered any obstacles while using population education materials?**” and allowed space for respondents to comment on what those obstacles were and how they had resolved them. Of the 178 respondents who answered this question, only 11 individuals (6%) indicated they had encountered any obstacles. The obstacles they encountered along with resolutions can be found in Appendix E.

Around half of the obstacles cited had to do with gaining access to the curriculum sites due to lost access cards or other unspecified technology issues. Outside of access issues, the obstacles varied. One person felt that, once on the curriculum site, it was difficult to navigate back to original pages once the desired resource was found. A few respondents mentioned issues with student understandings/take-aways or students getting distracted with the manipulatives. One person indicated that the articles and a couple of links in the *Earth Matters* curriculum are dated, and another that some of the lessons are not geared for a Canadian audience.

Efforts to Overcome Obstacles

We make a continuing effort to refine our materials and workshop model in order to reduce the obstacles teachers may face for including Population Education in their lesson planning.

We understand that it can be difficult for teachers to hold onto materials that they receive in professional development training without misplacing them over the years. With this in mind, we always encourage workshop attendees to put their access cards in a safe place so that they can continue to find them down the road. On our middle and high school curricula, educators are prompted to set up a personal login using the provided code. We believe that this minimizes access issues, since educators have control over their own login information and can easily reset their personal password when needed. We are considering moving to this model for both our elementary and K-12 curriculum kits.

In regard to navigation issues once on the curriculum sites, we are working on updating all of our resources so that lessons, readings, and charts open in a new browser window. We believe this will make it easier for educators to return to their previous pages once they've found the resource they are looking for. The lessons on the *Earth Matters* kit were all updated with current data and statistics in 2022. We will continue to monitor lessons for dead links and out of date statistics, and complete updates when necessary. With data related to global issues changing at a rapid pace, it is a great benefit to have our materials accessible online where we can easily upload new, current versions that include the latest available statistics.

As for overcoming challenges with student understandings and take-aways, teachers mentioned using some effective classroom strategies. Strategies included having students engage in peer discussions, providing more time to complete lessons, giving students more direction on what to do with manipulatives, and clarifying the connections being made. These types of teaching adaptations are common in classrooms and are what we hope teachers will do in order to accommodate for their own unique students and learning environments.

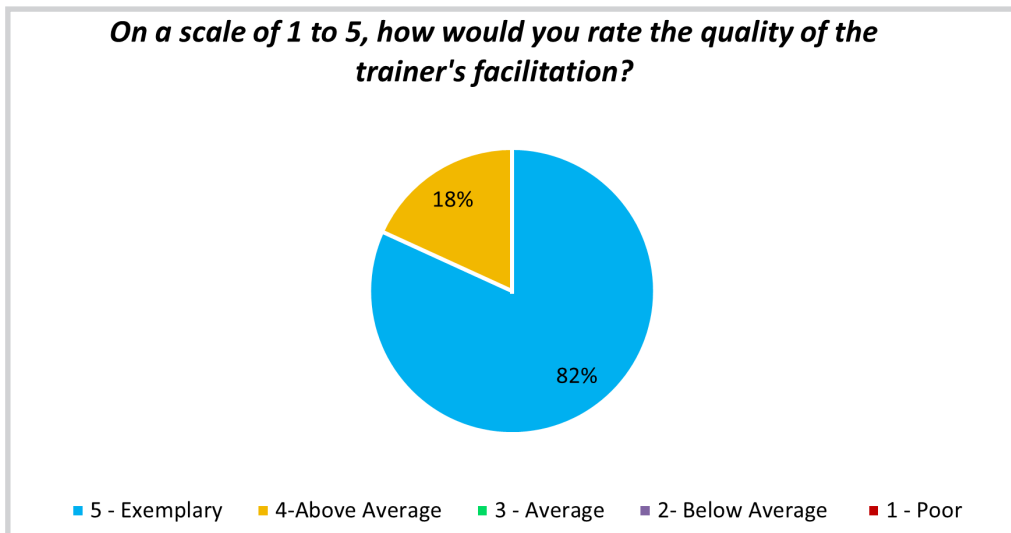
Workshop participants also continue to receive support in teaching population issues after they attend a workshop. If they choose to, they can sign-up to receive a free subscription to our e-newsletter for teachers, *The Population Educator*. The newsletter is sent out every other month, and provides additional activities and resources for including Population Education in the classroom. The newsletter goes out to over 11,300 educators. We also provide more targeted post-workshop support for our participants. By collecting data on the grade level and subject area focus of the workshop they attended, we now have the capability to email specific groups of teachers with helpful information about new products, specific lessons, free webinars for their teaching focus, and other resources they may find useful.

PRE-SERVICE INSTRUCTOR FEEDBACK

About half of PopEd professional development workshops in 2021 and 2022 were led in pre-service education classrooms. These workshops are hosted by education instructors who invite Population Ed facilitators to guest speak as part of their teacher preparation courses. Many of the pre-service instructors that we work with have been inviting us into their classes each semester for years. These long-term relationships with professors help us consistently reach future educators and are critical to the long-term health of the PopEd program.

In 2021, 150 university faculty sponsored 312 Population Education workshops and in 2022, 137 faculty sponsored 241 workshops. Over these two years, sponsors were emailed a brief questionnaire requesting feedback on the quality of the workshop and presenter, as well as the usefulness for the students and the overall objective of the course. We received 159 post-workshop evaluation responses from the pre-service education instructors that hosted the workshops.

Feedback from professors indicates that the vast majority were extremely satisfied with the workshop experience. Of 129 professors who answered the question, a full 100% described the trainer’s facilitation as Exemplary or Above Average.



Professors were also asked how well the workshops matched their course syllabus, and we received 140 responses to this question. Of these, 100% responded that the online workshop fit the course syllabus Very Well or Well and 97% said the same of in-person workshops. Similarly, 99% of professors who hosted online workshops and 97% of professors who hosted in-person found that PopEd activities fit Very Well or Well with established content standards.

Professors were also asked to give comments on the quality of the trainer and the lessons presented. Most of the comments we received were extremely positive, and reflect the effectiveness of our workshops. Many professors commented on the fact that their students enjoyed the workshop and found the instruction methods immediately useful for upcoming teaching placements:

“One of the students last year, who was president of the Master of Teaching Student Association, said it was the best training she had received in her two-year program. I have shared PopEd resources with several classes now, and the teacher candidates and practicing teachers alike greatly appreciated the curriculum resources that come with these webinars.” (online)

“The students continued to discuss the webinar in subsequent class sessions and some integrated the ideas into their classroom implementation.” (online)

“The lessons demonstrated were age appropriate, involved active learning, and my students are still referring to them in my class.” (in-person)

“The knowledge gained from the webinar is very valuable to my students. They find the webinar helpful in preparation for their career and especially the lesson plans that they received from PopEd. I see nothing to be improved from the webinar. Everything is perfect.” (online)

“My students found the materials to be of great interest and thought their future teachers would find it very engaging and relevant.” (in-person)

“I think I (and we as a program) talk about how to bring issues of equity and justice into lessons, as well as how to meaningfully integrate content across subject areas, but it can be difficult to find strong examples of how this is done. And the lessons all supported these goals in multiple ways!” (online)

Once again, my heartfelt gratitude to Population Education for another fantastic webinar. We are very lucky to partner with PopEd because of opportunities like the webinar and resources from your organization. (online)

“I took the Population Connection workshop as an undergrad (15-20 years ago) and it was a powerful program that helped guide my instruction. I was excited to see that it is still going and enjoyed participating in the program as an instructor. I hope to use the program with each semester that I teach the EDUC224 course.” (in-person)

“These sessions are so valuable for our student teachers. I hope they will continue to be made available online. We don’t have access to anything like this elsewhere.” (online)

A full list of the comments received are reprinted in Appendix F.



Pre-service educators work to maintain shared ‘renewable resources’ during the middle school lesson, *For the Common Good*.

POST-WORKSHOP EVALUATION FEEDBACK

At the end of workshops, participants received a post-workshop evaluation. This evaluation included questions on the activities, the presentation, and the presenter. Comments that were deemed substantive have been organized and annotated, as appropriate. These appear in Appendix G.

REVIEW AND DISCUSSION

Through evaluating the results described above, we can draw a number of conclusions about the strengths of Population Education's online and in-person workshop design and materials and about areas where further improvement is desirable. We will use these findings to plan future workshops and further refine our program.

PROFILE OF PARTICIPANTS

Population Education's goal has been to make population studies widespread, reaching as many young people as possible. Our strategy for reaching school-aged children involves targeting teachers of all subjects and grade levels throughout the U.S. and Canada in our hands-on, minds-on workshops. In workshops, educators learn about the many environmental, social, and economic issues related to population growth, and receive classroom materials to teach these complex topics to their students. Specifically designed to be used in diverse disciplines and grade levels, our materials reinforce many basic skills and concepts teachers already emphasize in geography, science, math, language arts, history, economics, global education, and many other subjects.

Over the past two years, Population Education provided teacher training workshops for 20,077 educators through 1,114 workshops held in 49 U.S. states, the District of Columbia, six Canadian provinces, and three countries abroad.

IMPACTS OF POPULATION EDUCATION

After participating in a Population Education workshops, many teachers determine that PopEd lessons are critical to include in their curriculum. This is evidenced by the fact that the vast majority of survey respondents have either already used, or plan to use Population Education materials with their students. We believe this overwhelmingly positive response is a result of the new appreciation for population issues participants gained through their workshop experience, as well as the quality of PopEd materials and ease of integration into K-12 classrooms. The fact that our workshops raise teachers' awareness of the complex issues surrounding population while also encouraging them to integrate PopEd lessons into their classrooms shows that the model of working with teachers in a hands-on setting is effective.

Educators consistently rate Population Education's activities successful in getting across important population-related concepts in a creative, accessible way. They also recognize the value in using PopEd materials to address required national and state/provincial level content standards as well as to teach 21st Century skills like analyzing data, evaluating information and drawing connections. Teachers who use PopEd materials also report significant benefits to student learning and their development as global citizens. The majority of educators see increases in students' knowledge,

as well as changes in how students interact with their communities and the natural world. These positive student outcomes speak to our overall mission of producing an informed electorate who will understand the need sustainable population and environmental policies. We are encouraged by the high and consistent usage rate of the materials and will continue to support teachers in their Population Education efforts through our newsletters, curriculum, downloadable lesson plans, videos, fact sheets, infographics, and helpful staff.

Moreover, we know that the teachers we reach through our workshops continue to work with students for years to come. The data in this report is consistent with prior reports on the teachers' rating and use of PopEd materials subsequent to attending a training workshop. Knowing that they continue to incorporate these materials into their lesson plans even years later, we are able to estimate that these lessons are reaching an estimated 3 million students each year.

POPULATION IN K-12 EDUCATION

Our curriculum and teacher workshops meet a need since population is a topic that is included in K-12 teaching standards and course frameworks. For instance, one of the Disciplinary Core Ideas in the NGSS is "Human Impacts on Earth Systems." This core idea is woven throughout the science standards in grades K-12. Population is also a significant part of both AP Human Geography (APHG) and AP Environmental Science (APES) course descriptions, being included as both an entire unit, as well emphasized in related units like those dealing with climate change, agriculture and urbanization. With enrollment in AP Environmental Science and AP Human Geography classes on the rise (between 2010 and 2022, the number of students who took APHG exams more than tripled and the number taking APES exams nearly doubled), we are confident that there will be a continual demand for Population Education resources.^{4, 5}

Teachers often cite that their textbooks' coverage of these topics is inadequate, and in response, they seek out supplemental materials, including those produced by Population Education. We routinely receive requests from textbook publishers, museums, parks, universities and other educational institutions to use or adapt our educational materials. During 2021 and 2021, we granted permission to:

- National Agriculture in the Classroom, to use updated calculations of land use from our activity, *Earth: The Apple of Our Eye*, in their own activities for elementary, middle and high school educators.
- The Scottish Qualifications Authority (SQA) to reprint our reading, *Urbanization and the Megacity*, as part of their Secure English Language Test (SELT).
- K4D, a non-commercial program funded by UK AID, to use our infographic, 'Stages of the Demographic Transition Model,' in their report "Supporting a Demographic Transition in SSA." K4D supports learning and use of evidence to improve the impact of development policy and programs.
- Oxford University Press to use data from our graph, *Distribution of World Urban Population by Area* (from the reading, *Urbanization and the Megacity*), as part of a language exercise in an educational course book.

⁴ College Board. (2010). *Student Score Distributions*. [dataset]. Retrieved from https://reports.collegeboard.org/media/pdf/Student-Score-Distributions-2010_1.pdf

⁵ College Board. (2022). *Student Score Distributions*. [dataset]. Retrieved from <https://apcentral.collegeboard.org/media/pdf/ap-score-distributions-by-subject-2022.pdf>

- The Museum of Natural History of the University of Crete (Greece) to show our *World Population* video as part of their permanent exhibit on environmental problems.
- The College Board to use our blog, *Why Do People Migrate? The 4 Most Common Types of Migration*, for the purpose of developing AP test questions.
- Accelerated Education Enterprises to include the *World Population* video as part of their online learning course for 7th grade social science students.
- The Royal Saskatchewan Museum to use a clip from Population's Science on a Sphere dataset *World Population Movie*, in an exhibit titled *Home: Life in the Anthropocene*.
- The Science Education for Public Understanding Program (SEPUP) at Lawrence Hall of Science, University of California Berkely, to use the *World Population* video as part of an integrated high school science course titled *Science and Sustainability*.
- Kapow Primary, to include our infographic, *Loss of Coral Reefs*, in their lesson titled, *Why are our oceans suffering?*, which is part of a series of six lessons on ocean health.

CONCLUSIONS

Here we have documented the quantifiable components of Population Education workshops. While the direct impact of 2021 and 2022 workshops can be measured using data from participants, the indirect impacts of our workshops make its entire scope much greater. Not only have so many educators pledged to use our materials in the coming months, we must remember that tens of thousands of people whom we have taught in previous years still practice Population Education in their classrooms and with other educators. We also know that the concepts and facts we present in workshops promote discussion outside the classroom. Thus, we are confident that we continue to reach many students and teachers indirectly, not only through the activities that participants received, but also through activities that participants passed on to their colleagues. Additionally, through our presence at teachers' conferences, through textbooks and publications to which our staff or trainees have contributed, and through participants' casual discussions with friends and colleagues about their workshop experience, the full extent of our workshops' influence is immeasurable.

We also know that through additional Population Education initiatives like our strong web and social media presence, our online graduate course, and the annual *World of 8 Billion* student video contest, that our reach with K-12 teachers extends far beyond those who attend our workshops. Given the exceptional feedback from workshop participants in regard to our classroom materials, we are confident that the positive impacts of our program and materials are vastly greater than what is quantified in this report.

APPENDIX A

2021-2022 POPULATION EDUCATION WORKSHOPS

Organization	Date	City	Trainer Name (s)	Format
UNITED STATES				
Alabama				
Alabama Association for Gifted Children	01/19/2021		Abby Watkins	Online live
Alabama Council of Teachers of Mathematics	11/04/2022	Oxford, AL	Almir Smajic	In person
Alabama Science Teachers Association	03/16/2021		Abby Watkins	Online live
AP Summer Institute - Auburn University	07/12/2021	Auburn, AL	Scott Cole	In person
MEGA Conference	07/13/2021	Mobile, AL	Melinda Staubs	In person
Arizona				
AP Summer Institute - Phoenix Desert APSI	06/16/2021	Phoenix, AZ	Julie Hilborn	Online live
AP Summer Institute - Phoenix Desert APSI	06/17/2021	Phoenix, AZ	Laura Short and Pete Bailey	Online live
AP Summer Institute - Phoenix Desert APSI	07/19/2022	Phoenix, AZ	Barbara Huth	Online live
Arizona Association for Gifted and Talented	02/04/2021		Sara Jenkins and Laura Short	Online recorded
Arizona Association for Gifted and Talented	02/10/2022	Mesa, AZ	Tawn Hauptli	In person
Arizona Center for Afterschool Excellence	10/23/2021	Phoenix, AZ	Marni Landry	In person
Arizona Civic Learning Conference	04/02/2022	Phoenix, AZ	Tawn Hauptli	In person
Arizona Science Teachers Association	11/05/2021	Phoenix, AZ	Marni Landry	In person
Arizona Science Teachers Association	11/04/2022	Phoenix, AZ	Tawn Hauptli	In person
Arizona State University	10/11/2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	10/12/2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	10/12/2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	10/12/2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	10/12/2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	10/19/2021	Phoenix, AZ	Lindsey Bailey	Online live
Arizona State University	04/19/2022	Tempe, AZ	Lindsey Bailey	Online live
Arizona State University	Spring 2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	Spring 2021	Tempe, AZ	Dianne McKee	Online live
Arizona State University	Spring 2022	Phoenix, AZ	Dianne McKee	In person
Arizona State University	Spring 2022	Phoenix, AZ	Dianne McKee	In person
Arizona State University	Spring 2022	Phoenix, AZ	Dianne McKee	In person
Arizona State University	Spring 2022	Phoenix, AZ	Dianne McKee	In person
Arizona State University, West	10/18/2022	Glendale, AZ	Lindsey Bailey	Online live
Arizona Teachers' Institute & Leading Change Conference	06/09/2022	Tucson, AZ	Marni Landry	In person
Arizona TESOL	10/22/2021		Tawn Hauptli	Online live
Mesa Community College	09/22/2021	Mesa, AZ	Laura Short	Online live
North American Association for Environmental Education	10/13/2022	Tucson, AZ	Dianne McKee	In person
Arkansas				
AP Summer Institute - Arkansas State University	07/20/2021	Jonesboro, AR	Leslie Keeney	In person
AP Summer Institute - University of Arkansas Little Rock	07/12/2021	Little Rock, AR		Online recorded
AP Summer Institute - University of Arkansas Little Rock	07/27/2021	Little Rock, AR		Online recorded
Arkansans for Gifted and Talented Education	02/25/2021		Abby Watkins	Online live
Harding University	11/16/2022	Searcy, AR	Allen Henderson	In person
California				
AP Summer Institute - California State University - Monterey Bay	07/19/2021	Monterrey Bay, CA		Online recorded
AP Summer Institute - Marin By the Bay	07/12/2021	San Francisco, CA		Online recorded
AP Summer Institute - Marin By the Bay	07/11/2022	San Rafael, CA	Jim Lehner	In person
AP Summer Institute - Orange County	06/22/2021	Costa Mesa, CA		Online recorded
AP Summer Institute - Orange County	07/26/2021	San Gabriel, CA		Online recorded
AP Summer Institute - Orange County	07/25/2022	Costa Mesa, CA		Online recorded
AP Summer Institute - Palos Verdes Peninsula High School	08/02/2021	Palos Verdes Peninsula, CA		Online recorded
AP Summer Institute - San Gabriel	07/12/2021	San Gabriel, CA		Online recorded

AP Summer Institute - San Gabriel	07/12/2021	San Gabriel, CA		Online recorded
AP Summer Institute - Silicon Valley	07/26/2021			Online recorded
AP Summer Institute - Silicon Valley	07/25/2022	Palo Alto, CA	Susan Berrend	In person
AP Summer Institute - University of California Riverside	07/12/2021	Riverside, CA		Online recorded
Bay Area Teachers Training Institute	02/27/2021	San Francisco, CA	Judith Gilson	Online live
BOOST Conference	04/28/2022	Palm Springs, CA	Erin Snyder	In person
California Association for Environmental and Outdoor Education	05/14/2021		Lauren Bergh	Online live
California Association for Environmental and Outdoor Education	05/14/2022	Springville, CA	Natalie Zayas	In person
California Association for the Education of Young Children	04/25/2021		Judy Weber	Online live
California Association of Family and Consumer Sciences	03/20/2021		Natalie Zayas	Online live
California Association of Science Educators	10/08/2021		Helen de la Maza	Online live
California Association of Science Educators	10/10/2021		Holli Gonzalez	Online live
California Association of Science Educators	10/14/2022	Palm Springs, CA	Holli Gonzalez	In person
California Council for the Social Studies	03/07/2021		Helen de la Maza	Online live
California League of Educators	03/05/2022	Monterey, CA	Natalie Zayas	In person
California Math Council - Central Section	03/13/2021		Carol Bliese	Online live
California Mathematics Council - Northern Section	12/04/2021	Pacific Grove, CA	Megan Sulsberger	In person
California State University, Bakersfield	04/06/2021	Bakersfield, CA	Holli Gonzalez	Online live
California State University, Bakersfield	04/08/2021	Bakersfield, CA	Holli Gonzalez	Online live
California State University, Bakersfield	10/29/2021	Bakersfield, CA	Holli Gonzalez	Online live
California State University, Bakersfield	05/06/2022	Bakersfield, CA	Holli Gonzalez	Online live
California State University, Bakersfield	10/24/2022	Bakersfield, CA	Holli Gonzalez	Online live
California State University, Bakersfield	10/25/2022	Bakersfield, CA	Holli Gonzalez	In person
California State University, Bakersfield	March 2022	Bakersfield, CA	Holli Gonzalez	In person
California State University, Chico	04/23/2021	Chico, CA	Lynda Deschambault	Online live
California State University, Chico	12/03/2021	Chico, CA	Laura Short	Online live
California State University, Chico	Spring 2021	Chico, CA		Online recorded
California State University, Chico	Fall 2021	Chico, CA		Online recorded
California State University, East Bay	02/14/2022	East Bay, CA	Michele Korb	In person
California State University, Long Beach	11/08/2022	Long Beach, CA	Lauren Bergh	In person
California State University, Monterey Bay	04/14/2021	Monterrey Bay, CA	Lynda Deschambault and Pete Bailey	Online live
California State University, Monterey Bay	04/21/2021	Monterrey Bay, CA	Lynda Deschambault and Rafael Woldeab	Online live
California State University, Monterey Bay	11/03/2021	Monterrey Bay, CA	Laura Short	Online live
California State University, Monterey Bay	04/13/2022	Seaside, CA	Katie Grams and Lindsey Bailey	Online live
California State University, Monterey Bay	04/20/2022	Monterrey Bay, CA	Abby Watkins	Online live
California State University, Monterey Bay	10/05/2022	Monterrey Bay, CA	Lynda Deschambault	Online live
California State University, San Bernardino	11/22/2022	Cathedral City, CA	Carol Bliese	Online live
California State University, San Marcos	04/12/2021	San Marcos, CA	Helen de la Maza	Online live
California State University, San Marcos	04/13/2021	San Marcos, CA	Helen de la Maza	Online live
California State University, San Marcos	04/14/2021	San Marcos, CA	Helen de la Maza	Online live
California State University, San Marcos	04/04/2022	San Marcos, CA	Helen de la Maza	Online live
California State University, San Marcos	04/04/2022	San Marcos, CA	Helen de la Maza	Online live
California State University, San Marcos	04/05/2022	San Marcos, CA	Helen de la Maza	Online live
California STEAM Symposium	10/21/2021		Lauren Gerig	Online live
California STEAM Symposium	10/01/2022	Anaheim, CA	James Corboy	In person
Environmental Education Collaborative	02/27/2021		Monica Cooper and Laura Short	Online live
Environmental Education Collaborative	02/26/2022		Helen de la Maza	Online live
NAI Sierra Pacific Region Workshop	03/12/2022	Aptos, CA	Laura Short	Online live
National Association for Interpretation	12/02/2021	Palm Springs, CA	Lauren Bergh	In person
National Science Teaching Association	12/10/2021	Los Angeles, CA	Jessica Sutorus	In person
REMIX Conference	01/29/2022	Chico, CA	Abby Watkins	Online live
Sacramento State University	Fall 2021	Sacramento, CA	Mimi Coughlin	In person
Sacramento State University	Fall 2022	Sacramento, CA	Mimi Coughlin	In person
San Francisco State University	03/01/2021	San Francisco, CA		Online recorded
West Los Angeles College	Spring 2021	Los Angeles, CA		Online recorded

Colorado				
AP Summer Institute - Cherry Creek High School	07/20/2021	Denver, CO		Online recorded
AP Summer Institute - Colorado Education Initiative	07/12/2021	Denver, CO		Online recorded
AP Summer Institute - Colorado Education Initiative	07/14/2021	Denver, CO	Katherine Cantu	Online live
AP Summer Institute - Colorado Education Initiative	07/11/2022	Erie, CO	Scott Cole	In person
Catamount Institute	10/06/2021	Colorado Springs, CO	Howard Drossman	In person
Catamount Institute	10/06/2022		Howard Drossman	In person
Colorado Alliance for Environmental Education	09/21/2021			Online live
Colorado Association for Gifted and Talented	10/18/2022	Loveland, CO	Lisa Turner	In person
Colorado Council for the Social Studies	07/22/2021		Kara Casini	Online live
Colorado Council of Teachers of Mathematics	10/02/2021		Robert Galin	Online live
National Association for Gifted Children	11/12/2021	Aurora, CO	Lisa Turner	In person
University of Northern Colorado	Fall 2021	Greeley, CO	Phil Klein	In person
Connecticut				
AP Summer Institute - Taft Center	06/28/2021	Watertown, CT		Online recorded
AP Summer Institute - Taft Center	07/07/2021	Watertown, CT	Abby Watkins and Rafael Woldeab	Online live
AP Summer Institute - Taft Center	07/19/2021	Watertown, CT		Online recorded
AP Summer Institute - Taft Center	06/27/2022	Watertown, CT	Jim Lehner	In person
AP Summer Institute - Taft Center	07/18/2022	Watertown, CT	Jim Lehner	In person
AP Summer Institute - Taft Center	07/27/2022	Watertown, CT	Abby Watkins	Online live
Connecticut After School Network	11/05/2021		Lindsey Bailey	Online live
Connecticut After School Network	11/12/2022	Hartford, CT	Lesleigh Drake and Derrick Vernier	In person
Eastern Connecticut State University	04/06/2021		Abby Watkins and Pete Bailey	Online live
Eastern Connecticut State University	06/21/2021		Rafael Woldeab	Online live
Delaware				
AP Summer Institute - Lewes, DE	07/19/2021	Lewes, DE		Online recorded
District of Columbia				
WATESOL	10/29/2022	Washington, DC	Abby Watkins	In person
Population Education	02/08/2021		Lindsey Bailey and Rafael Woldeab	Online live
Population Education	02/09/2021		Pete Bailey and Carol Bliese	Online live
Population Education	02/10/2021		Carol Bliese and Abby Watkins	Online live
Population Education	02/16/2021		Rafael Woldeab and Abby Watkins	Online live
Population Education	03/08/2021		Lindsey Bailey and Abby Watkins	Online live
Population Education	03/09/2021		Pete Bailey and Rafael Woldeab	Online live
Population Education	03/10/2021		Carol Bliese and Laura Short	Online live
Population Education	04/05/2021		Pete Bailey and Carol Bliese	Online live
Population Education	04/06/2021		Abby Watkins and Rafael Woldeab	Online live
Population Education	04/07/2021		Lindsey Bailey and Laura Short	Online live
Population Education	04/15/2021		Abby Watkins and Laura Short	Online live
Population Education	10/05/2021		Rafael Woldeab and Laura Short	Online live
Population Education	12/09/2021		Abby Watkins and Rafael Woldeab	Online live
Population Education	02/15/2022		Laura Short and Abby Watkins	Online live
Population Education	04/12/2022		Lindsey Bailey and Laura Short	Online live
Population Education	09/29/2022		Barbara Huth and Lindsey Bailey	Online live
Population Education	11/10/2022		Barbara Huth and Denise Stewardson	Online live
Florida				
AP Summer Institute - Bolles School	06/14/2021	Jacksonville, FL		Online recorded
AP Summer Institute - Bolles School	06/28/2021	Jacksonville, FL		Online recorded
AP Summer Institute - Community School of Naples	06/24/2021	Naples, FL	Pete Bailey and Laura Short	Online live
AP Summer Institute - Gulf Coast State College	06/07/2021	Panama City, FL		Online recorded
AP Summer Institute - Gulf Coast State College	06/13/2022	Panama City, FL		Online recorded
AP Summer Institute - Nova Southeastern University	06/28/2021			Online recorded
AP Summer Institute - Nova Southeastern University	06/30/2021	Ft. Lauderdale, FL	Anthony Zanin	Online live
AP Summer Institute - Nova Southeastern University	06/29/2022	Ft Lauderdale, FL	Barbara Huth	Online live
AP Summer Institute - Pinellas County Schools at Boca Ciega HS	07/13/2021	Gulf Port, FL	Laura Short	Online live
AP Summer Institute - University of Central Florida	06/29/2021	Orlando, FL	Lindsey Bailey	Online live

AP Summer Institute - University of Central Florida	07/14/2022	Orlando, FL	Katie Grams	Online live
AP Summer Institute - University of South Florida	07/12/2021			Online recorded
AP Summer Institute - University of South Florida	07/14/2021	Tampa, FL	Rafael Woldeab and Lindsey Bailey	Online live
AP Summer Institute - University of South Florida	07/19/2021			Online recorded
AP Summer Institute - University of South Florida	07/21/2021	Tampa, FL	Pete Bailey and Carol Bliese	Online live
AP Summer Institute - University of South Florida	07/28/2021	Tampa, FL	Rafael Woldeab and Laura Short	Online live
AP Summer Institute - University of South Florida	07/11/2022	Tampa, FL	Scott Sowell	In person
AP Summer Institute - University of South Florida	07/13/2022	Tampa, FL	Barbara Huth	Online live
AP Summer Institute - University of South Florida	07/18/2022	Tampa, FL	Scott Sowell	In person
AP Summer Institute - University of South Florida	07/20/2022	Tampa, FL	Laura Short	Online live
AP Summer Institute - University of South Florida	07/25/2022	Tampa, FL	Scott Sowell	In person
AP Summer Institute - University of South Florida	07/26/2022	Tampa, FL	Laura Short	Online live
AP Summer Institute - Wiregrass Ranch School	07/06/2021			Online recorded
Association for Middle Level Education	11/05/2022	Kissimmee, FL	Abby Watkins	In person
Berry College	04/13/2021	Miami, FL	Abby Watkins	Online live
Brandon Academy	04/05/2021	Brandon, FL	Pete Bailey and Carol Bliese	Online live
Brandon Academy	04/05/2021	Brandon, FL	Laura Short and Abby Watkins	Online live
Brandon Academy	04/05/2021	Brandon, FL	Pete Bailey and Rafael Woldeab	Online live
Florida Atlantic University	Spring 2021	Boca Raton, FL		Online recorded
Florida Atlantic University	Summer 2021	Boca Raton, FL		Online recorded
Florida Atlantic University	Summer 2021	Boca Raton, FL		Online recorded
Florida Atlantic University	Spring 2022	Boca Raton, FL		Online recorded
Florida International University	03/02/2021	Miami, FL	Abby Watkins and Carol Bliese	Online live
Florida International University	03/02/2021	Miami, FL	Abby Watkins and Carol Bliese	Online live
Florida International University	11/07/2022	Miami, FL	Abby Watkins	In person
Florida Marine Science Educators Association	04/27/2021		Laura Short	Online live
League of Environmental Educators in Florida	04/24/2021		Laura Short	Online live
Sunshine State TESOL of Florida	10/28/2021	Tampa, FL	Cristina Valentino	Online live
University of Central Florida	07/20/2021		Lindsey Bailey and Pete Bailey	Online live
University of Central Florida	10/26/2021	Orlando, FL	Lindsey Bailey	Online live
University of Central Florida	10/27/2021	Orlando, FL	Abby Watkins	Online live
University of Central Florida	03/15/2022	Orlando, FL	Abby Watkins	Online live
University of Central Florida	07/14/2022	Orlando, FL	Carol Bliese	Online live
University of Central Florida	Spring 2021	Orlando, FL		Online recorded
University of Central Florida	Spring 2021	Orlando, FL		Online recorded
University of South Florida	03/01/2021	Tampa, FL	Carol Bliese and Rafael Woldeab	Online live
University of South Florida	03/22/2021	Tampa, FL	Lindsey Bailey and Pete Bailey	Online live
University of South Florida	06/04/2021	Tampa, FL	Lindsey Bailey and Pete Bailey	Online live
University of South Florida	10/04/2021	Tampa, FL	Abby Watkins and Carol Bliese	Online live
University of South Florida	10/11/2021	Tampa, FL	Abby Watkins	Online live
University of South Florida	02/28/2022	Tampa, FL	Katie Grams and Laura Short	Online live
University of South Florida	06/03/2022	Tampa, FL	Katie Grams	Online live
University of South Florida	10/10/2022	Tampa, FL	Carol Bliese	Online live
University of South Florida	10/10/2022	Tampa, FL	Laura Short	Online live
University of South Florida	Spring 2021	Tampa, FL		Online canvas
University of South Florida	October 2021	Tampa, FL		Online recorded
University of Tampa	Spring 2021	Brandon, FL		Online recorded
University of Tampa	Spring 2021	Brandon, FL		Online recorded
University of Tampa	Spring 2022	Tampa, FL		Online recorded
University of Tampa	Spring 2022	Brandon, FL		Online recorded
Georgia				
AP Summer Institute - Kennesaw State University	06/28/2021	Kennesaw, GA		Online recorded
AP Summer Institute - Kennesaw State University	06/27/2022	Kennesaw, GA	Scott Cole	In person
AP Summer Institute - Kennesaw State University	07/11/2022	Kennesaw, GA		Online recorded
AP Summer Institute - Marist School	06/13/2022	Atlanta, GA		Online recorded
AP Summer Institute - Marist School	06/13/2022	Atlanta, GA		Online recorded
AP Summer Institute - Marist School	06/13/2022	Atlanta, GA		Online recorded
AP Summer Institute - University of Georgia	06/14/2021	Athens, GA		Online recorded

AP Summer Institute - University of Georgia	06/28/2021	Athens, GA		Online recorded
AP Summer Institute - University of Georgia	06/27/2022	Athens, GA		Online recorded
AP Summer Institute - University of Georgia	07/11/2022	Athens, GA	John Trites	In person
AP Summer Institute - Walton High School	06/22/2021	Marietta, GA	Laura Short and Rafael Woldeab	Online live
AP Summer Institute - Walton High School	06/23/2021	Marietta, GA	Anthony Zanin	Online live
AP Summer Institute - Walton High School	06/21/2022	Marietta, GA		Online recorded
AP Summer Institute - Walton High School	06/22/2022		Anthony Zanin	Online live
AP Summer Institute - Walton High School	06/28/2022		Katie Grams	Online live
AP Summer Institute - Woodward Academy	06/07/2021	College Park, GA		Online recorded
AP Summer Institute - Woodward Academy	07/19/2021	College Park, GA		Online recorded
AP Summer Institute - Woodward Academy	06/06/2022		Amy Fassler	In person
AP Summer Institute - Woodward Academy	06/06/2022	Atlanta, GA		Online recorded
AP Summer Institute - Woodward Academy	07/18/2022	College Park, GA	Pam Shlachtman	In person
Brenau University: ELIPSE Conference	11/22/2021		Rafael Woldeab and Lindsey Bailey	Online live
Environmental Education Alliance of Georgia	03/12/2021		Lauren Johnson	Online live
Georgia Association for Gifted Children	03/01/2021		Abby Watkins	Online recorded
Georgia Council of Teachers of Mathematics	02/05/2022		Evelyn Sears	Online live
Georgia Council of Teachers of Mathematics	02/05/2022		Kenneth Jones	Online live
Georgia Science Teachers Association	02/12/2022		Abby Watkins	Online live
Georgia State University	02/08/2021	Atlanta, GA	Abby Watkins and Pete Bailey	Online live
Georgia State University	02/14/2022	Atlanta, GA	Laura Short	Online live
Georgia State University	Fall 2021	Atlanta, GA		Online recorded
Georgia TESOL	10/27/2022		Abby Watkins	Online recorded
IFHE World Congress 2022	09/08/2022	Atlanta, GA	Carole Makela	In person
National Association of Biology Teachers	11/13/2021	Atlanta, GA	Marni Landry	In person
Piedmont University	Fall 2021	Athens, GA		Online recorded
Piedmont University	Fall 2021	Athens, GA		Online recorded
Piedmont University	Spring 2022	Athens, GA	Evelyn Sears	In person
Piedmont University	Fall 2022	Athens, GA	Evelyn Sears	In person
Spelman College	04/06/2021	Atlanta, GA	Rafael Woldeab and Lindsey Bailey	Online live
University of North Georgia	06/29/2021	Oakwood, GA	Linda Reece	In person
University of North Georgia	06/29/2021	Gainesville, GA	Linda Reece	In person
Hawaii				
AP Summer Institute - Hawaii Pacific University	07/06/2021	Honolulu, HI		Online recorded
AP Summer Institute - Hawaii Pacific University	07/06/2021	Honolulu, HI		Online recorded
Hawaii Science Teachers Association	09/25/2021		Lindsey Bailey	Online live
Idaho				
AP Summer Institute - Idaho APSI Centennial HS	06/21/2021	Boise, ID	Ann Linsley	In person
AP Summer Institute - Idaho APSI Centennial HS	06/20/2022	Boise, ID	Hilary Staples	In person
AP Summer Institute - Idaho APSI Centennial HS	06/21/2022	Boise, ID	Kevin Turner	In person
AP Summer Institute - Intermountain Farmington High School	06/22/2021	Farmington, ID	Hilary Staples	In person
AP Summer Institute - Intermountain Farmington High School	07/07/2021	Farmington, ID	Anthony Zanin	Online live
Idaho Super Conference	08/05/2021		Sheryl Rushton	Online live
ISTA and ICTM STEM Conference	08/04/2022	Pocatello, ID	Bryce Mercer	In person
Illinois				
AP Summer Institute - Loyola University	07/11/2022	Chicago, IL		Online recorded
AP Summer Institute - Northwestern University	07/06/2021	Chicago, IL		Online recorded
AP Summer Institute - Northwestern University	07/05/2022	Chicago, IL		Online recorded
AP Summer Institute - Northwestern University	07/11/2022	Evanston, IL		Online recorded
AP Summer Institute - Plainfield North High School	06/21/2022	Plainfield, IL		Online recorded
Environmental Education Association of Illinois	03/12/2021		Janet Beach Davis	Online live
Environmental Education Association of Illinois	04/08/2022	Yorkville, IL	Janet Beach Davis	In person
Governors State University	03/29/2021	Chicago, IL	Lindsey Bailey and Pete Bailey	Online live
Governors State University	04/04/2022	Chicago, IL	Abby Watkins and Katie Grams	Online live
Illinois Association for Gifted Children	10/15/2021		Janet Beach Davis	Online recorded
Illinois Association for the Education of Young Children	10/15/2022	Springfield, IL	April Fletcher	In person
Illinois Council of Teachers of Mathematics	10/16/2021		April Fletcher	Online live

Illinois State University	10/03/2022	Normal, IL	Janet Beach Davis	In person
Illinois State University	10/04/2022	Normal, IL	Leah Nillas	In person
Illinois State University	10/04/2022	Normal, IL	Leah Nillas	In person
Illinois State University	11/10/2022	Palatine, IL	Lindsey Bailey and Kevin McDonald	Online live
Illinois State University	11/10/2022	Wheeling, IL	Carol Bliese and Kevin McDonald	Online live
Illinois Teachers of English to Speakers of Other Languages - Bilingual Education	02/26/2021		Lindsey Bailey and Abby Watkins	Online live
Illinois Wesleyan University	September 2021	Decatur, IL	Leah Nillas	Online live
Illinois Wesleyan University	September 2022	Decatur, IL	Leah Nillas	In person
Metropolitan Mathematics Club of Chicago	02/12/2022		Lindsey Bailey	Online live
National Science Teaching Association	07/22/2022	Chicago, IL	Stephanie Ruder	In person
Indiana				
Anderson University	09/29/2021	Anderson, IN	Rafael Woldeab	Online live
Anderson University	10/19/2022	Anderson, IN	Rebekah Baker	In person
AP Summer Institute - Indiana Academy	07/06/2021	Muncie, IN	Michael Mayfield	In person
AP Summer Institute - Indiana Academy	07/06/2021	Muncie, IN		Online recorded
AP Summer Institute - Pike High School	07/13/2021	Indianapolis, IN	Leslie Keeney	In person
AP Summer Institute - University of Notre Dame AP-TIP IN	07/13/2021	Notre Dame, IN	Amy Fassler	In person
AP Summer Institute - University of Notre Dame AP-TIP IN	07/11/2022	Notre Dame, IN	Kristin Shapiro	In person
Ball State University	03/15/2021	Muncie, IN	Pete Bailey	Online live
Ball State University	03/16/2021	Muncie, IN	Pete Bailey	Online live
Ball State University	03/18/2021	Muncie, IN	Laura Short	Online live
Ball State University	10/21/2021	Muncie, IN	Carol Bliese	Online live
Ball State University	10/22/2021	Muncie, IN	Carol Bliese	Online live
Ball State University	03/15/2022	Muncie, IN	Lindsey Bailey	Online live
Ball State University	03/15/2022	Muncie, IN	Katie Grams	Online live
Environmental Education Association of Indiana	01/27/2022	Mitchell, IN	Amanda Patrick	Online live
HASTI and ICTM Virtual Joint Conference	02/06/2021		Lindsey Bailey	Online live
Hoosier Association of Science Teachers	02/15/2022	Indianapolis, IN	Meredith McAllister	In person
Indiana Association for the Gifted	12/06/2021	Indianapolis, IN		In person
Indiana Council for the Social Studies	10/29/2021		Catherine Hagerman Pangan	Online live
Indiana State University	02/15/2022	Terre Haute, IN		Online recorded
Indiana State University	02/15/2022	Terre Haute, IN		Online recorded
Indiana State University	10/18/2022	Terre Haute, IN		Online recorded
Indiana State University	Spring 2021	Terre Haute, IN		Online recorded
Indiana State University	Spring 2021	Terre Haute, IN		Online recorded
Indiana State University	Spring 2021	Terre Haute, IN		Online recorded
Indiana State University	Spring 2021	Terre Haute, IN		Online recorded
Indiana State University	Spring 2021	Terre Haute, IN		Online recorded
Indiana State University	Fall 2021	Terre Haute, IN		Online recorded
Indiana University	11/17/2021	Bloomington, IN	Jodi Bondy	In person
Indiana University	11/17/2021	Bloomington, IN	Jodi Bondy	In person
Indiana University	Spring 2021	Bloomington, IN		Online canvas
Indiana University	Spring 2021	Bloomington, IN		Online canvas
Indiana University	Spring 2021	Bloomington, IN		Online canvas
Indiana University Kokomo	11/17/2022	Kokomo, IN	Jodi Bondy	In person
Indiana University Kokomo	11/17/2022	Kokomo, IN	Jodi Bondy	In person
Ivy Tech Community College	11/15/2022	Muncie, IN	Rebekah Baker	In person
National Association for Gifted Children	11/17/2022	Indianapolis, IN	Lisa Turner	In person
National Association of Biology Teachers	11/11/2022	Indianapolis, IN	Marni Landry	In person
National Association of Biology Teachers	11/11/2022	Indianapolis, IN	Norman Leonard	In person
National Council of Teachers of Mathematics	03/18/2022	Indianapolis, IN	Meredith McAllister	In person
Iowa				
Cornell College	10/27/2021	Mount Vernon, IA	Carol Bliese	Online live
Drake University	09/27/2022	Des Moines, IA	Laura Short	Online live
Grand View University	09/27/2022	Des Moines, IA	Laura Short	Online live
Iowa Association for the Education of Young Children	10/02/2021		Lisa Tabor	Online live

Iowa Association for the Education of Young Children	09/30/2022	Des Moines, IA	Michael Bechtel	In person
Iowa Council for the Social Studies	10/03/2021	West Des Moines, IA	Jeff Firsching	In person
Iowa Council for the Social Studies	10/03/2022	Altoona, IA	Jeff Firsching	In person
Midwest Environmental Education Conference	07/28/2021	Decorah, IA	Howard Aprill	Online live
Morningside University	Fall 2022		Jeff Firsching	In person
National Agriculture in the Classroom	06/30/2021	Des Moines, IA	Denise Stewardson	In person
University of Iowa	03/01/2021	Iowa City, IA	Carol Bliese	Online live
University of Iowa	03/30/2021		Carol Bliese	Online live
University of Iowa	04/01/2021		Abby Watkins	Online live
University of Iowa	09/20/2021		Abby Watkins	Online live
University of Iowa	09/21/2021		Abby Watkins	Online live
University of Iowa	02/16/2022	Iowa City, IA	Abby Watkins	Online live
University of Iowa	02/17/2022	Iowa City, IA	Abby Watkins and Barbara Huth	Online live
University of Iowa	09/29/2022		Laura Short	Online live
University of Iowa	09/29/2022		Laura Short	Online live
University of Northern Iowa	03/04/2021	Cedar Falls, IA	Laura Short and Pete Bailey	Online live
University of Northern Iowa	03/04/2021	Cedar Falls, IA	Laura Short and Pete Bailey	Online live
University of Northern Iowa	03/04/2021	Cedar Falls, IA	Laura Short and Pete Bailey	Online live
University of Northern Iowa	10/18/2021	Cedar Falls, IA	Laura Short	Online live
University of Northern Iowa	10/18/2021	Cedar Falls, IA	Rafael Woldeab and Abby Wakins	Online live
University of Northern Iowa	10/18/2021	Cedar Falls, IA	Laura Short and Rafael Woldeab	Online live
University of Northern Iowa	10/25/2021	Cedar Falls, IA	Carol Bliese	Online live
University of Northern Iowa	10/25/2021	Cedar Falls, IA	Laura Short	Online live
University of Northern Iowa	10/26/2021	Cedar Falls, IA	Laura Short	In person
University of Northern Iowa	11/02/2021	Cedar Falls, IA	Carol Bliese	Online live
University of Northern Iowa	11/02/2021	Cedar Falls, IA	Carol Bliese	Online live
University of Northern Iowa	02/08/2022	Cedar Falls, IA	Lindsey Bailey and Barbara Huth	Online live
University of Northern Iowa	11/07/2022	Cedar Falls, IA	Barbara Huth and Kevin McDonald	Online live
University of Northern Iowa	11/07/2022	Cedar Falls, IA	Barbara Huth	Online live
University of Northern Iowa	11/07/2022	Cedar Falls, IA	Carol Bliese	Online live
Wartburg College	10/29/2021	Waverly, IA	Michael Bechtel	In person
Wartburg College	Fall 2022	Waverly, IA	Michael Bechtel	In person
Wartburg College	Fall 2022	Waverly, IA	Michael Bechtel	In person
Kansas				
AP Summer Institute - Midwest Premier	06/28/2021	Olathe, KS		Online recorded
AP Summer Institute - Midwest Premier	06/27/2022	Olathe, KS	DeLora Mowery	In person
Kansas and Missouri Environmental Education Conference	11/03/2021		Sarah Powell	Online live
Kansas Association for the Gifted, Talented and Creative	10/11/2021		Laura Short	Online recorded
Kansas State University	04/20/2021	Manhattan, KS	Carol Bliese	Online live
Kansas State University	11/10/2021	Manhattan, KS	Laura Short and Rafael Woldeab	Online live
Kansas State University	04/05/2022	Manhattan, KS	Barbara Huth	Online live
Kansas State University	Fall 2022	Manhattan, KS	Max Lu	In person
KATS Kamp	04/24/2021		Abby Watkins	Online live
KATS Kamp	04/23/2022	Olathe, KS	Sarah Powell	In person
Kentucky				
AP Summer Institute - Eastern Kentucky University	06/14/2021			Online recorded
AP Summer Institute - Eastern Kentucky University	06/14/2022			Online recorded
AP Summer Institute - University of Louisville	06/14/2021	Louisville, KY		Online recorded
AP Summer Institute - University of Louisville	07/11/2022	Louisville, KY	Michael Mayfield	In person
AP Summer Institute - University of Tennessee Chattanooga	06/28/2021			Online recorded
AP Summer Institute - Western Kentucky University	06/21/2021			Online recorded
AP Summer Institute - Western Kentucky University	06/27/2022	Bowling Green, KY	Joni Jameson	In person
Bellarmine University	10/21/2021	Louisville, KY	Laura Short and Abby Watkins	Online live
Bellarmine University	10/26/2021	Louisville, KY	Abby Watkins	Online live
Eastern Kentucky University - Corbin Extended Campus	09/02/2022	Corbin, KY	Scott Townsend	Online live
Eastern Kentucky University	01/22/2021		Scott Townsend	In person
Eastern Kentucky University	08/16/2021	Richmond, KY	Scott Townsend	In person

Eastern Kentucky University	08/16/2021	Richmond, KY	Scott Townsend	In person
Eastern Kentucky University	09/22/2021	Corbin, KY	Scott Townsend	In person
Eastern Kentucky University	01/21/2022	Richmond, KY	Scott Townsend	In person
Eastern Kentucky University	08/19/2022	Richmond, KY	Scott Townsend	Online live
Kentucky Association for Gifted Education	02/24/2021		Abby Watkins	Online live
Kentucky Association for Gifted Education	02/22/2022		Scott Townsend and Connie Hodge	Online live
Kentucky Science Teachers Association	11/04/2022	Richmond, KY	Scott Townsend	In person
Kentucky Science Teachers Association	November 2022	Richmond, KY	Scott Townsend	In person
University of Kentucky	Fall 2021	Lexington, KY		Online recorded
University of Kentucky	Fall 2021	Lexington, KY		Online recorded
University of Kentucky	Fall 2021	Lexington, KY		Online recorded
University of Kentucky	Fall 2021	Lexington, KY		Online recorded
University of Kentucky	Fall 2021	Lexington, KY		Online recorded
University of Louisville	02/02/2021	Louisville, KY	Abby Watkins and Pete Bailey	Online live
Louisiana				
AP Summer Institute - University of Louisiana at Lafayette	07/12/2021		Kevin Turner	In person
AP Summer Institute - University of Louisiana at Lafayette	07/11/2022	Lafayette, LA	Kevin Turner	In person
Maine				
Maine Council for the Social Studies	11/07/2022	Augusta, ME	Guy Hamlin	In person
Maryland				
AP Summer Institute - Goucher College	06/21/2021	Baltimore, MD	Anne Soos	In person
AP Summer Institute - Goucher College	06/28/2021	Baltimore, MD		Online recorded
AP Summer Institute - Goucher College	06/28/2021	Baltimore, MD		Online recorded
AP Summer Institute - Goucher College	06/27/2022	Baltimore, MD	Anne Soos	In person
AP Summer Institute - Goucher College	06/27/2022	Baltimore, MD	Pamela Wolfe	Online live
AP Summer Institute - Prince Georges County	08/05/2021	Capitol Heights, MD	Laura Short	Online live
Maryland Association for Environmental and Outdoor Education	02/06/2021	Towson, MD	Laura Short and Rafael Woldeab	Online live
Maryland Association for Environmental and Outdoor Education	02/05/2022		Laura Short	Online live
Maryland TESOL	11/13/2021		Abby Watkins	Online live
National Aquarium	09/30/2021	Baltimore, MD	Carol Bliese and Laura Short	Online live
National Council of Teachers of Mathematics	02/06/2021	Baltimore, MD	Carol Bliese and Pete Bailey	Online recorded
National Council of Teachers of Mathematics	12/02/2022	Baltimore, MD	Carol Bliese and Katie Grams	In person
National Science Teaching Association	11/11/2021	National Harbor, MD	Melissa Holmes	In person
Towson University	03/08/2021	Towson, MD	Abby Watkins	Online live
Towson University	03/10/2021	Towson, MD	Carol Bliese	Online live
Towson University	04/29/2021	Towson, MD	Lindsey Bailey	Online live
Towson University	05/05/2021	Towson, MD	Abby Watkins	Online live
Towson University	05/10/2021	Towson, MD	Pete Bailey	Online live
Towson University	05/10/2021	Towson, MD	Pete Bailey	Online live
Towson University	09/14/2021	Towson, MD	Rafael Woldeab	Online live
Towson University	09/15/2021	Towson, MD	Rafael Woldeab	Online live
Towson University	09/16/2021	Towson, MD	Rafael Woldeab	Online live
Towson University	09/24/2021	Towson, MD	Rafael Woldeab	Online live
Towson University	10/01/2021	Towson, MD	Lindsey Bailey	In person
Towson University	10/25/2021	Bel Air, MD	Lindsey Bailey	In person
Towson University	10/29/2021	Towson, MD	Lindsey Bailey	In person
Towson University	11/29/2021	Towson, MD	Laura Short	In person
Towson University	12/01/2021	Towson, MD	Abby Watkins	In person
Towson University	12/07/2021	Towson, MD	Abby Watkins	In person
Towson University	12/10/2021	Towson, MD	Abby Watkins	In person
Towson University	01/27/2022	Towson, MD	Laura Short	Online live
Towson University	03/02/2022	Towson, MD	Barbara Huth and Lindsey Bailey	Online live
Towson University	03/28/2022	Towson, MD	Laura Short	In person
Towson University	03/31/2022	Bel Air, MD	Lindsey Bailey	In person
Towson University	04/21/2022	Towson, MD	Katie Grams	Online live

Towson University	05/02/2022	Towson, MD	Pamela Wasserman	In person
Towson University	11/07/2022	Towson, MD	Katie Grams	In person
Towson University	11/14/2022	Bel Air, MD	Katie Grams	In person
Towson University	11/14/2022	Towson, MD	Katie Grams	In person
Towson University	11/16/2022	Towson, MD	Katie Grams	In person
Towson University	11/16/2022	Towson, MD	Katie Grams	In person
Towson University	12/12/2022	Towson, MD		Online recorded
University of Maryland	06/23/2021		Pete Bailey	Online live
University of Maryland	10/04/2021		Abby Watkins	Online live
University of Maryland	10/05/2021		Abby Watkins	Online live
University of Maryland	12/05/2022	College Park, MD	Laura Short	In person
University of Maryland	12/06/2022	College Park, MD	Laura Short	In person
University of Maryland, Baltimore County	04/12/2021			Online recorded
Massachusetts				
AP Summer Institute - Bridgewater State University	06/16/2021	Bridgewater, MA		Online recorded
AP Summer Institute - Bridgewater State University	07/25/2022	Bridgewater, MA	John Trites	In person
Massachusetts Association of Teachers of Speakers of Other Languages (MATSO)	06/02/2021		Rafael Woldeab	Online live
Massachusetts Council for the Social Studies	10/13/2021		Rafael Woldeab	Online live
Massachusetts Environmental Education Society	03/10/2021		Laura Short	Online live
Massachusetts Environmental Education Society	03/09/2022		Susan Bryant	Online live
Tufts University	03/10/2021		Rafael Woldeab and Pete Bailey	Online live
Tufts University	03/09/2022	Medford, MA	Abby Watkins	Online live
Michigan				
AP Summer Institute - (unknown location)	08/29/2022	Brighton, MI	John Maunu	In person
AP Summer Institute - Novi High School	06/14/2021			Online recorded
AP Summer Institute - Novi High School	08/02/2021			Online recorded
AP Summer Institute - Novi High School	06/13/2022	Novi, MI		Online recorded
AP Summer Institute - Novi High School	08/01/2022	Novi, MI		Online recorded
AP Summer Institute - Novi High School	08/03/2022	Novi, MI	Abby Watkins	Online live
AP Summer Institute - Oakland University	07/11/2022	Rochester, MI	Anne Soos	In person
Central Michigan University	03/30/2021	Mount Pleasant, MI	Pete Bailey	Online live
Ferris University	Fall 2021	Big Rapids, MI	Vanessa Wyss	In person
Ferris University	Fall 2021	Big Rapids, MI	Vanessa Wyss	In person
Michigan Association for the Education of Young Children	04/30/2021	Grand Rapids, MI	Vanessa Wyss and Lindsey Bailey	Online recorded
Michigan Council for the Social Studies	04/19/2022		Lindsey Bailey and Sean O'Neill	Online live
Michigan Council of Teachers of Mathematics	07/28/2021	Grand Rapids, MI	Abby Watkins	Online live
Michigan Council of Teachers of Mathematics	10/22/2022		Katie Grams and Connie Kennedy	Online live
Michigan Science Teachers Association	03/06/2021		Janet Vail and Amanda Syers	Online live
Michigan Science Teachers Association	03/05/2022	Lansing, MI	Holly Schaeffer	In person
Michigan TESOL	11/11/2022	Ann Arbor, MI	Gail Luera	In person
Wayne State University	Spring 2021	Detroit, MI	Rachel Badanowski	In person
Wayne State University	Spring 2021	Detroit, MI	Rachel Badanowski	In person
Minnesota				
AP Summer Institute - Augsburg University	06/24/2021	Minneapolis, MN	Amy Fassler	Online live
AP Summer Institute - Augsburg University	07/22/2021	Minneapolis, MN	Laura Short	Online live
AP Summer Institute - Augsburg University	06/23/2022	Minneapolis, MN	Laura Short	Online live
AP Summer Institute - Augsburg University	06/27/2022		Amy Fassler	In person
AP Summer Institute - Augsburg University	06/30/2022	Minneapolis, MN	Katie Grams	Online live
AP Summer Institute - Augsburg University	07/11/2022	Minneapolis, MN		Online recorded
AP Summer Institute - Carleton College	06/28/2021	Northfield, MN	Amy Fassler	Online live
AP Summer Institute - Carleton College	06/28/2021	Northfield, MN		Online recorded
AP Summer Institute - Carleton College	07/26/2021	Northfield, MN		Online recorded
AP Summer Institute - Carleton College	06/21/2022	Northfield, MN	Max Lu	In person
Minnesota Association for the Education of Young Children-Minnesota School-Age Care Alliance	03/04/2022	St. Paul, MN	Lindsey Bailey	Online live
Minnesota Council of Teachers of Mathematics	04/16/2021	Duluth, MN	Joan Kwako	Online recorded
Minnesota Council of Teachers of Mathematics	04/30/2022	Duluth, MN	Joan Kwako	In person

Minnesota Middle School Association	02/10/2022		Lindsey Bailey	Online recorded
Minnesota Science Teachers Association	10/30/2021		Lindsey Bailey	Online live
Minnesota State University	09/29/2022	Mankato, MN	Katie Grams	Online live
Minnesota State University	09/29/2022	Mankato, MN	Lindsey Bailey	Online live
Minnesota State University	10/03/2022	Mankato, MN	Carol Bliese	Online live
Minnesota State University - Mankato	04/22/2021	Edina, MN	Laura Short	Online live
National Council for Geographic Education	10/15/2022	Minneapolis, MN	Lindsey Bailey	In person
National Council for the Social Studies	11/20/2021	Minneapolis, MN	Gayle Thieman	Online live
National Council for the Social Studies	11/21/2021	Minneapolis, MN	Lindsey Bailey	Online live
Normandale Community College	04/26/2022	Bloomington, MN	Eric Sanden	In person
St. Cloud State University	02/15/2021	St. Cloud, MN		Online canvas
St. Cloud State University	02/15/2021	St. Cloud, MN	Rafael Woldeab	Online canvas
St. Cloud State University	02/15/2021	St. Cloud, MN		Online canvas
St. Cloud State University	10/18/2021	St. Cloud, MN	Lindsey Bailey	Online live
St. Cloud State University	11/15/2021	St. Cloud, MN	Abby Watkins	Online live
St. Cloud State University	10/10/2022	St. Cloud, MN	Lindsey Bailey	In person
St. Cloud State University	June 2021	St. Cloud, MN		Online canvas
The University of St. Thomas	10/11/2022	St. Paul, MN	Lindsey Bailey	In person
The University of St. Thomas	10/12/2022	Minneapolis, MN	Lindsey Bailey	In person
University of Minnesota	02/17/2021	Minneapolis, MN	Pete Bailey and Rafael Woldeab	Online live
University of Minnesota	03/01/2022	Minneapolis, MN	Angie Lawrence	In person
University of Minnesota - St. Paul Campus	11/02/2021	Saint Paul, MN	Rafael Woldeab	Online live
University of Minnesota - St. Paul Campus	10/13/2022	Saint Paul, MN	Lindsey Bailey	In person
University of Minnesota, Duluth	Spring 2021	Duluth, MN	Joan Kwako	Online live
University of Minnesota, Duluth	Spring 2022	Duluth, MN	Joan Kwako	Online live
Mississippi				
AP Summer Institute - Millsaps College	07/12/2021	Jackson, MS		Online recorded
AP Summer Institute - Millsaps College	06/21/2022		Abby Watkins	Online live
Mississippi Early Childhood Association	Fall 2021		Abby Watkins	Online recorded
Mississippi PREPS	03/05/2021		Donna Torres	Online recorded
University of Mississippi	09/22/2022	Oxford, MS	Abby Watkins	Online live
University of Mississippi DeSoto Center	03/01/2021	DeSoto, MS	Lindsey Bailey	Online live
Missouri				
Gifted Association of Missouri	10/02/2021		Pete Bailey	Online live
Jefferson College	10/14/2022	Hillsboro, MO	Abby Watkins	In person
Jefferson College	10/14/2022	Hillsboro, MO	Abby Watkins	In person
Kansas and Missouri Environmental Education Conference	11/04/2022	Kansas City, MO	Sarah Powell	In person
Missouri Council for the Social Studies	02/19/2021		Carol Bliese	Online recorded
Missouri Council for the Social Studies	02/18/2022		Abby Watkins	Online recorded
Missouri State Internship Academy	04/01/2021	Springfield, MO	Robin Koerber	In person
Missouri State Internship Academy	04/01/2021	Springfield, MO	Robin Koerber	In person
Missouri State Internship Academy	10/21/2021	St. Louis, MO	Robin Koerber	In person
Missouri State Internship Academy	10/21/2021	St. Louis, MO	Robin Koerber	In person
Missouri State Internship Academy	10/20/2022	Springfield, MO	Robin Koerber	In person
Missouri State Internship Academy	10/20/2022	Springfield, MO	Robin Koerber	In person
Missouri State University	10/27/2022	Springfield, MO	Robin Koerber	In person
Missouri State University	October 2021	Nixa, MO	Robin Koerber	In person
Science Teachers of Missouri	11/12/2022	Columbia, MO	Sandra Hamar	In person
University of Missouri	10/13/2022	Columbia, MO	Abby Watkins	In person
University of Missouri	10/13/2022	Columbia, MO	Abby Watkins	In person
University of Missouri - St. Louis	02/24/2021	St. Louis, MO	Abby Watkins and Lindsey Bailey	Online live
University of Missouri - St. Louis	09/29/2021	St. Louis, MO	Rafael Woldeab	Online live
Montana				
Montana State University	10/26/2022	Bozeman, MT	Abby Watkins	Online live
Montana State University	10/26/2022	Bozeman, MT	Lindsey Bailey	Online live
Nebraska				
AP Summer Institute - Lincoln Public Schools	06/14/2021	Lincoln, NE		Online recorded

Educators Rising State Leadership Conference	09/15/2021	Omaha, NE	Amanda Steiner	In person
Nebraska Association of Teachers of Mathematics	03/28/2022	Kearney, NE	Amanda Steiner	In person
Nebraska Association of Teachers of Mathematics	03/28/2022	Kearney, NE	Amanda Steiner	In person
Nebraska Association of Teachers of Science	10/08/2021	Crete, NE	Sonya Stejskal	In person
Summer Science Retreat	06/06/2022		Amanda Steiner	In person
University of Nebraska at Omaha	April 2021	Omaha, NE	Amanda Steiner	In person
University of Nebraska at Omaha	April 2021	Omaha, NE	Amanda Steiner	In person
University of Nebraska at Omaha	Fall 2021	Omaha, NE	Amanda Steiner	In person
University of Nebraska at Omaha	Fall 2021	Omaha, NE	Amanda Steiner	In person
University of Nebraska at Omaha	Spring 2022	Omaha, NE	Amanda Steiner	In person
University of Nebraska at Omaha	Spring 2022	Omaha, NE	Amanda Steiner	In person
University of Nebraska at Omaha	November 2022	Omaha, NE	Amanda Steiner	In person
Nevada				
AP Summer Institute - Silver State	07/26/2021	Las Vegas, NV		Online recorded
AP Summer Institute - Silver State	07/25/2022	Henderson, NV	Kristin Shapiro	In person
AP Summer Institute - Silver State	07/25/2022	Las Vegas, NV	Julie Wakefield	In person
National Afterschool Association	03/21/2022	Las Vegas, NV	Merryn Cole	In person
Nevada Association for the Education of Young Children	04/27/2021		Laura Short	Online live
Nevada Association for the Education of Young Children	04/23/2022		Laura Short	Online live
Nevada State Science Teachers Association	04/30/2022	Las Vegas, NV	Merryn Cole	In person
University of Nevada, Las Vegas	10/04/2021	Las Vegas, NV	Hasan Deniz	In person
University of Nevada, Las Vegas	03/24/2022	Las Vegas, NV	Merryn Cole	In person
University of Nevada, Las Vegas	04/11/2022	Las Vegas, NV	Merryn Cole	In person
University of Nevada, Las Vegas	10/31/2022	Las Vegas, NV	Merryn Cole	In person
University of Nevada, Las Vegas	11/16/2022	Las Vegas, NV	Merryn Cole	In person
New Hampshire				
New England College	03/03/2021		Abby Watkins	Online live
New England College	10/13/2021		Lindsey Bailey	Online live
New England College	03/10/2022	Henniker, NH	Abby Watkins and Katie Grams	Online live
New England College	09/29/2022	Henniker, NH	Katie Grams	Online live
New Hampshire Council for the Social Studies	04/08/2021		Rafael Woldeab	Online live
Plymouth State University	10/12/2021	Plymouth, NH	Lindsey Bailey	Online live
Rivier University	Spring 2021	Nashua, NH		Online recorded
Rivier University	Spring 2021	Nashua, NH		Online recorded
New Jersey				
Alliance for New Jersey Environmental Education	01/19/2021		Nancy Sardone	Online live
Alliance for New Jersey Environmental Education	01/20/2022		Nancy Sardone	Online live
AP Summer Institute - Rutgers	07/12/2021	New Brunswick, NJ		Online recorded
AP Summer Institute - Rutgers	06/30/2022	New Brunswick, NJ	Laura Short	Online live
AP Summer Institute - Rutgers	07/25/2022		Jim Lehner	In person
Georgian Court University	02/17/2021		Abby Watkins and Carol Bliese	Online live
Georgian Court University	03/31/2022	Lakewood, NJ	Katie Grams	Online live
New Jersey Association for Gifted Children	03/18/2022	West Windsor, NJ	Patricia Heaney	In person
New Jersey Council for the Social Studies	10/18/2021		Rafael Woldeab	Online recorded
New Jersey Science Convention	10/20/2021	Princeton, NJ	Judy Levine	In person
NJ TESOL/NJ Bilingual Educators	05/25/2021		Rafael Woldeab	Online live
Ramapo College	10/19/2021	Ramapo, NJ	Carol Bliese	Online live
Ramapo College	10/19/2021	Ramapo, NJ	Carol Bliese	Online live
Ramapo College	10/19/2021	Ramapo, NJ	Carol Bliese	Online live
Ramapo College	09/27/2022	Ramapo, NJ	Katie Grams and Abby Watkins	Online live
Ramapo College	09/27/2022	Ramapo, NJ	Katie Grams and Abby Watkins	Online live
Ramapo College	11/03/2022	Ramapo, NJ	Katie Grams and Carol Bliese	Online live
Rowan University	03/04/2022	Glassboro, NJ	Patricia Heaney	In person
Saint Peter's University	03/09/2022	Jersey City, NJ	Katie Grams and Lindsey Bailey	Online live
Saint Peter's University	Spring 2021		Jim Clayton	Online live
William Paterson University of New Jersey	03/01/2021			Online recorded
William Paterson University of New Jersey	03/02/2021			Online recorded

New Mexico				
AP Summer Institute - New Mexico Moodle Learning Management System Online	06/15/2021		Laura Short and Abby Watkins	Online live
AP Summer Institute - New Mexico Moodle Learning Management System Online	06/06/2022	Santa Fe, NM	Brian Kaestner	In person
Eastern New Mexico University	02/24/2021	Portales, NM	Pete Bailey and Rafael Woldeab	Online live
Eastern New Mexico University	02/23/2022	Portales, NM	Abby Watkins and Barbara Huth	Online live
Eastern New Mexico University	09/27/2022	Portales, NM	Barbara Huth	Online live
New Mexico Association for the Education of Young Children	03/06/2021		Cass Landrum	Online live
New Mexico Association for the Gifted	10/23/2021	Santa Fe, NM	Rebecca Sánchez	Online live
New York				
AP Summer Institute - Allegheny Intermediate	06/27/2022			Online recorded
AP Summer Institute - Fordham University	07/07/2022	New York, NY	Katie Grams and Abby Watkins	Online live
AP Summer Institute - Manhattan College	08/02/2021	New York, NY		Online recorded
AP Summer Institute - Manhattan College	08/02/2021	Manhattan, NY		Online recorded
AP Summer Institute - Manhattan College	08/01/2022	Bronx, NY	Scott Horton	In person
AP Summer Institute - Manhattan College	08/01/2022	Bronx, NY	Jeanne Kaidy	In person
AP Summer Institute - Manhattan College	08/08/2022	Rochester, NY		Online recorded
AP Summer Institute - Manhattan College	08/08/2022	Bronx, NY	Pamela Wolfe	Online live
AP Summer Institute - Molloy College	07/26/2021	Rockville Centre, NY		Online recorded
AP Summer Institute - Molloy College	07/25/2022	Rockville Centre, NY	Jeanne Kaidy	In person
AP Summer Institute - Purchase College PWISTA	06/28/2021	Harrison, NY		Online recorded
AP Summer Institute - Purchase College PWISTA	08/16/2021	Harrison, NY		Online recorded
AP Summer Institute - Purchase College PWISTA	06/27/2022	Harrison, NY		Online recorded
AP Summer Institute - Purchase College PWISTA	08/15/2022	Harrison, NY		Online recorded
AP Summer Institute - St. John Fisher College	07/11/2022	Rochester, NY	Scott Horton	In person
AP Summer Institute - St. John Fisher College	07/11/2022	Rochester, NY	Sam Routhier	In person
New York State Council for the Social Studies	03/10/2022	Albany, NY	Deborah Mabey and Laura Short	In person
New York State Outdoor Education Association	11/05/2021		Rafael Woldeab	Online live
New York State Outdoor Education Association	11/05/2022		Dorothea Panayotou	In person
New York State Outdoor Education Association	11/05/2022		Pete Bailey	In person
Science Teachers Association of New York State	11/05/2022	Syracuse, NY	Jeffrey Perry	In person
SUNY - Cortland	03/22/2021		Rafael Woldeab and Pete Bailey	Online live
SUNY - Cortland	03/31/2021		Rafael Woldeab	Online live
SUNY - Cortland	03/31/2021		Rafael Woldeab	Online live
SUNY - Cortland	03/31/2021		Lindsey Bailey	Online live
SUNY - Cortland	09/15/2021	Cortland, NY	Laura Short	Online live
SUNY - Cortland	11/03/2021		Rafael Woldeab and Pete Bailey	Online live
SUNY - Cortland	03/09/2022	Cortland, NY	Lindsey Bailey and Katie Grams	Online live
SUNY - Cortland	03/11/2022	Cortland, NY	Barbara Huth	Online live
SUNY - Cortland	03/30/2022	Cortland, NY	Katie Grams	Online live
SUNY - Cortland	10/19/2022	Cortland, NY	Katie Grams and Kevin McDonald	Online live
SUNY - Cortland	10/19/2022	Cortland, NY	Katie Grams and Kevin McDonald	Online live
North Carolina				
AP Summer Institute - Davidson College	06/21/2021	Davidson, NC		Online recorded
AP Summer Institute - Davidson College	06/29/2021	Davidson, NC	Anthony Zanin	Online live
AP Summer Institute - Davidson College	06/22/2022	Davidson, NC	Paul Gray	In person
AP Summer Institute - Davidson College	06/27/2022	Davidson, NC	Pam Shlachtman	In person
AP Summer Institute - Meredith College	08/02/2021	Raleigh, NC		Online recorded
AP Summer Institute - Meredith College	07/26/2022	Raleigh, NC	Max Lu	In person
AP Summer Institute - University of North Carolina	07/18/2022	Chapel Hill, NC	Hilary Staples	In person
AP Summer Institute - University of North Carolina Asheville	06/21/2021	Ashville, NC		Online recorded
Bridging the Gap Conference	10/26/2021		Laura Short	Online recorded
Environmental Educators of North Carolina	09/09/2022	Raleigh, NC	Jayne Young	In person
North Carolina Association for Middle Level Education	03/14/2022	Charlotte, NC	Kelly Morlacci	In person
North Carolina Association for the Gifted and Talented	03/04/2021		Rafael Woldeab	Online live
North Carolina Association for the Gifted and Talented	03/10/2022	Winston-Salem, NC	Laura Short	Online live

North Carolina Association of Elementary Educators	01/29/2022	Raleigh, NC	Lindsey Bailey and Shirley Smith	Online live
North Carolina Center for Afterschool Programs	04/29/2021		Lindsey Bailey	Online recorded
North Carolina Council for the Social Studies	03/03/2022	Greensboro, NC	Tracey Kumar	In person
North Carolina Council of Teachers of Mathematics	02/24/2022	Winston-Salem, NC	Laura Short and Shirley Smith	Online live
North Carolina Council of Teachers of Mathematics	11/10/2022	Winston-Salem, NC	Shirley Smith	In person
North Carolina Science Teachers Association	02/17/2022	Winston-Salem, NC	Leigh Apple	Online live
North Carolina Science Teachers Association	11/03/2022	Winston-Salem, NC	Leigh Apple	In person
North Carolina State University	02/16/2021	Raleigh, NC	Carol Bliese and Pete Bailey	Online live
North Carolina State University	09/28/2021	Raleigh, NC	Carol Bliese	Online live
North Carolina State University	11/15/2022	Raleigh, NC	Katie Grams	Online live
North Carolina State University	Fall 2022	Raleigh, NC	Gail Jones	In person
University of North Carolina - Chapel Hill	10/25/2021	Chapel Hill, NC	Carol Bliese	Online live
University of North Carolina - Charlotte	02/08/2022	Charlotte, NC	Abby Watkins	Online live
University of North Carolina - Wilmington	02/01/2021	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	02/17/2021	Wilmington, NC	Laura Short	Online live
University of North Carolina - Wilmington	03/15/2021	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	04/15/2021	Wilmington, NC	Rafael Woldeab and Laura Short	Online live
University of North Carolina - Wilmington	04/20/2021	Wilmington, NC	Pete Bailey and Lindsey Bailey	Online live
University of North Carolina - Wilmington	04/20/2021	Wilmington, NC	Pete Bailey	Online live
University of North Carolina - Wilmington	10/15/2021	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	10/15/2021	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	11/02/2021	Wilmington, NC	Laura Short	Online live
University of North Carolina - Wilmington	11/03/2021	Wilmington, NC	Laura Short	Online live
University of North Carolina - Wilmington	11/11/2021	Wilmington, NC	Carol Bliese	Online live
University of North Carolina - Wilmington	04/18/2022	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	04/19/2022	Wilmington, NC	Laura Short	Online live
University of North Carolina - Wilmington	11/08/2022	Wilmington, NC	Laura Short and Kevin McDonald	Online live
University of North Carolina - Wilmington	11/09/2022	Wilmington, NC	Laura Short and Kevin McDonald	Online live
University of North Carolina - Wilmington	Summer 2021	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	Spring 2022	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	Spring 2022	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	Spring 2022	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	October 2022	Wilmington, NC		Online recorded
University of North Carolina - Wilmington	October 2022	Wilmington, NC		Online recorded
North Dakota				
University of North Dakota	03/26/2021	Grand Forks, ND	Teresa Shume	Online live
Ohio				
Appalachian Green Teachers Conference	10/29/2021	Glouster, OH	Catherine Knoop	In person
Bowling Green State University	03/15/2021	Bowling Green, OH	Abby Watkins and Rafael Woldeab	Online live
Bowling Green State University	03/15/2021	Bowling Green, OH	Carol Bliese	Online live
Bowling Green State University	03/16/2021	Bowling Green, OH	Rafael Woldeab	Online live
Bowling Green State University	10/11/2021	Bowling Green, OH	Debra Gallagher	In person
Bowling Green State University	02/14/2022	Bowling Green, OH	Debra Gallagher	In person
Bowling Green State University	02/14/2022	Bowling Green, OH	Debra Gallagher	In person
Bowling Green State University	03/22/2022	Bowling Green, OH	Debra Gallagher	In person
Bowling Green State University	10/06/2022	Bowling Green, OH	Barbara Huth	In person
Edge of Appalachia: Educators' Week	06/07/2022	Portsmouth, OH	Catherine Knoop	In person
Environmental Education Council of Ohio	01/30/2021		Carol Bliese	Online live
Environmental Education Council of Ohio	01/30/2021		Carol Bliese	Online live
Environmental Education Council of Ohio	01/29/2022	Perrysville, OH	Janet Beach Davis	Online live
Jefferson County Christian Academy	06/21/2022		Rosie Gregg and Nancy Varian	In person
Kid Watch	01/14/2022	Louisville, OH	Rosie Gregg and Nancy Varian	In person
Malone University	10/28/2021	Canton, OH	Rosie Gregg and Nancy Varian	Online live
Malone University	03/19/2022	Canton, OH	Rosie Gregg and Nancy Varian	In person
Malone University	04/23/2022	Canton, OH	Rosie Gregg and Nancy Varian	In person
Malone University	10/27/2022	Canton, OH	Rosie Gregg and Nancy Varian	In person
Miami University Middletown	11/22/2021	Middletown, OH	Jennifer Mysona	In person
Miami University Middletown	November 2022	Middletown, OH	Jennifer Mysona	In person

NAEYC Professional Learning Institute	06/15/2022	Cleveland, OH	Nancy Varian and Rosie Gregg	In person
National Association for Interpretation	12/01/2022	Cleveland, OH	Howard Aprill	In person
Ohio Afterschool Network	02/25/2022		Courtney Fox	Online live
Ohio Association for Gifted Children	10/19/2021	Columbus, OH	Sarah Lee	In person
Ohio Association for Gifted Children	10/18/2022	Columbus, OH	Sarah Lee	In person
Ohio Association for the Education of Young Children	04/23/2021		Lindsey Bailey	Online recorded
Ohio Council for the Social Studies	10/15/2022	Bexley, OH	Jennifer Mysona	In person
Ohio Council of Teachers of Mathematics	10/12/2021		Courtney Fox	Online live
Ohio Council of Teachers of Mathematics	10/27/2022	Sharonville, OH	Courtney Fox	In person
Ohio Middle Level Association	05/07/2021	Sandusky, OH	Debra Gallagher	In person
Ohio Middle Level Association	10/29/2021	Columbus, OH	Laura Diaco	In person
Ohio State University, Lima	10/26/2021	Lima, OH	Debra Gallagher	In person
Ohio State University, Lima	10/26/2021	Lima, OH	Debra Gallagher	In person
Ohio State University, Lima	10/04/2022	Lima, OH	Barbara Huth	In person
Ohio TESOL	11/12/2022	Columbus, OH	Catherine Knoop	In person
South-Western City School District	08/03/2021	Grove City, OH	Catherine Knoop	In person
STEM Conference - Greater Cincinnati Area	11/09/2021	Cincinnati, OH	Jennifer Mysona	Online live
STEM Conference - Greater Cincinnati Area	10/04/2022	Cincinnati, OH	Courtney Fox	In person
Tiffin University	10/05/2022	Tiffin, OH	Barbara Huth	In person
University of Cincinnati	03/11/2021	Cincinnati, OH	Lindsey Bailey and Laura Short	Online live
University of Toledo	10/04/2022	Toledo, OH	Barbara Huth	In person
Wright State University	10/03/2022	Dayton, OH	Barbara Huth	In person
Oklahoma				
AP Summer Institute - Northeastern State University	06/21/2021	Broken Arrow, OK		Online recorded
AP Summer Institute - Northeastern State University	07/20/2021	Broken Arrow, OK	Laura Short	Online live
AP Summer Institute - Northeastern State University	06/20/2022	Broken Arrow, OK	DeLora Mowery	In person
AP Summer Institute - Northeastern State University	07/21/2022	Broken Arrow, OK	Barbara Huth	Online live
AP Summer Institute - Rice University	07/11/2022	Broken Arrow, OK		Online recorded
AP Summer Institute - University of Oklahoma	07/12/2021	Norman, OK		Online recorded
Oklahoma Council for the Social Studies	10/19/2021		Kristy Brugar	Online live
Oregon				
Center for Geography Education in Oregon	03/06/2021	Monmouth, OR		Online recorded
Environmental Education Association of Oregon	07/31/2021		Brennan Brockbank and Rafael Woldeab	Online live
Greater Albany School District	03/16/2022	Corvallis, OR	June Morris	In person
National Science Teaching Association	10/28/2021	Portland, OR	Brennan Brockbank	In person
Northwest Aquatic and Marine Educators	08/07/2022	Netarts, OR	Gayle Thieman and Mindy Chappell	In person
Oregon Association for Talented and Gifted	10/08/2022	Oregon City, OR	June Morris	In person
Oregon Council for the Social Studies	04/03/2021		Jennifer Wyld	Online live
Pacific University	11/16/2021	Woodburn, OR	Laura Short and Lindsey Bailey	In person
Portland State University	May 2022	Portland, OR	Gayle Thieman	In person
University of Portland	03/15/2021	Portland, OR	Jennifer Wyld and Laura Short	Online live
University of Portland	11/08/2021	Portland, OR	Abby Watkins	Online live
University of Portland	11/10/2021	Portland, OR	Jennifer Wyld	In person
University of Portland	03/07/2022	Portland, OR	Barbara Huth and Laura Short	Online live
University of Portland	11/16/2022	Portland, OR	Jennifer Wyld	In person
University of Portland	Fall 2022	Portland, OR		Online recorded
Western Oregon University	10/15/2022	Albany, OR	June Morris	Online live
Pennsylvania				
AP Summer Institute - LaSalle University	07/11/2022	Philadelphia, PA		Online recorded
AP Summer Institute - LaSalle University	07/11/2022	Philadelphia, PA		Online recorded
Indiana University of Pennsylvania	04/14/2021		Carol Bliese	Online live
La Roche University	04/07/2021	Pittsburgh, PA	Kathryn Silvis and Rafael Woldeab	Online live
National Council for the Social Studies	12/03/2022	Philadelphia, PA	Barbara Huth	In person
National Council for the Social Studies	12/03/2022	Philadelphia, PA	Lindsey Bailey	In person
Pennsylvania Association for Gifted Education	11/04/2021	Cranberry Township, PA	Kathryn Silvis	In person
Pennsylvania Association for Middle Level Education	02/28/2021	State College, PA	Katherine Remillard	Online live
Pennsylvania Association for Middle Level Education	02/28/2021		Kathryn Silvis	Online live

Pennsylvania Association for Middle Level Education	02/27/2022	State College, PA	Katherine Remillard	In person
Pennsylvania Association of Environmental Educators	03/23/2021		Rafael Woldeab	Online live
Pennsylvania Association of Environmental Educators	03/21/2022		Sonia Rosen	Online live
Pennsylvania Early Childhood Summit	10/18/2021		Judith Mosse	Online live
Pennsylvania Science Teachers Association	08/18/2021		Rafael Woldeab	Online live
Point Park University	10/07/2021	Pittsburgh, PA	Rafael Woldeab	Online live
Point Park University	09/26/2022	Pittsburgh, PA	Katie Grams	Online live
Western Pennsylvania Pre-Service Teacher Day	11/06/2021	Pittsburgh, PA	Katherine Remillard	In person
Puerto Rico				
San Juan Bay Estuary Program	06/25/2021	San Juan , PR	Eliezer Nieves-Rodriguez	Online live
University of Puerto Rico	Fall 2022	San Juan, PR	Eliezer Nieves-Rodriguez	In person
Rhode Island				
New England League of Middle Schools	03/18/2022		Charles Dabritz and Laura Short	Online live
Roger Williams University	03/31/2022	Bristol, RI	Katie Grams	Online live
Roger Williams University	03/31/2022	Bristol, RI	Lindsey Bailey	Online live
University of Rhode Island	11/16/2022		Susan Brand	In person
South Carolina				
AP Summer Institute - Claflin University	06/28/2021	Orangeburg, SC		Online recorded
AP Summer Institute - Claflin University	06/21/2022		Abby Watkins	Online live
Coastal Carolina University	03/31/2021	Conway, SC	Carol Bliese	Online live
Coastal Carolina University	11/15/2021	Conway, SC	Scott Townsend	In person
Coastal Carolina University	11/15/2021	Conway, SC	Scott Townsend	In person
Coastal Carolina University	04/20/2022	Myrtle Beach, SC	Meta Van Sickle	In person
Coastal Carolina University	10/05/2022	Myrtle Beach, SC	Katie Grams	In person
College of Charleston	Spring 2021	Charleston, SC	Meta Van Sickle	In person
College of Charleston	Spring 2022	Charleston, SC	Meta Van Sickle	In person
College of Charleston	September 2022	Charleston, SC	Meta Van Sickle	In person
College of Charleston	September 2022	Charleston, SC	Meta Van Sickle	In person
Columbia College	03/25/2021	Columbia, SC	Laura Short and Abby Watkins	Online live
Columbia College	09/16/2021	Columbia, SC	Pete Bailey	Online live
Columbia College	02/01/2022	Columbia, SC	Abby Watkins	Online live
Columbia College	09/15/2022	Columbia, SC	Katie Grams	Online live
Lander University	03/15/2021	Greenwood, SC		Online recorded
SCECA/SECA Conference	02/04/2022	Myrtle Beach, SC	Irene Aiken	In person
South Carolina Association for Middle Level Education	03/05/2021	Myrtle Beach, SC	Meta Van Sickle	Online recorded
South Carolina Council of Teachers of Mathematics	11/17/2022	Greenville, SC	David Messer and Carol McCullough	In person
South Carolina Early Childhood Association	02/05/2021	Columbia, SC	Irene Aiken	Online live
University of South Carolina	02/23/2021	Columbia, SC	Rafael Woldeab and Pete Bailey	Online live
University of South Carolina	10/19/2021	Columbia, SC	Laura Short	Online live
University of South Carolina	02/10/2022	Columbia, SC	Barbara Huth and Laura Short	Online live
University of South Carolina	10/06/2022	Columbia, SC	Katie Grams	In person
University of South Carolina	10/06/2022	Columbia, SC	Katie Grams	In person
University of South Carolina	10/10/2022	Columbia, SC	Katie Grams	In person
University of South Carolina, Aiken	02/17/2021	Aiken, SC	Rafael Woldeab and Abby Watkins	Online live
University of South Carolina, Aiken	02/17/2021	Aiken, SC	Carol Bliese	Online live
University of South Carolina, Aiken	09/22/2021	Aiken, SC	Lindsey Bailey	Online live
University of South Carolina, Aiken	09/22/2021	Aiken, SC	Lindsey Bailey	Online live
University of South Carolina, Aiken	03/02/2022	Aiken, SC	Abby Watkins and Katie Grams	Online live
University of South Carolina, Aiken	03/02/2022	Aiken, SC	Abby Watkins and Katie Grams	Online live
University of South Carolina, Upstate	09/20/2021	Spartanburg, SC	Abby Watkins	Online live
University of South Carolina, Upstate	02/17/2022	Spartanburg, SC	Lindsey Bailey and Barbara Huth	Online live
University of South Carolina, Upstate	10/04/2022	Spartanburg, SC	Katie Grams	In person
South Dakota				
SD STEM Education Conference	02/04/2022	Huron, SD	Lynda Venhuizen	In person
SD STEM Education Conference	02/04/2022	Huron, SD	Lynda Venhuizen	In person

Tennessee				
AP Summer Institute - Maryville College	07/05/2021	Maryville, TN	Lindsey Bailey and Laura Short	Online live
AP Summer Institute - Maryville College	07/07/2022	Maryville, TN	Katie Grams	Online live
AP Summer Institute - University of Tennessee Chattanooga	06/27/2022	Chattanooga, TN		Online recorded
Belmont University	11/09/2021	Nashville, TN		Online recorded
Belmont University	11/10/2021	Nashville, TN	Abby Watkins	Online live
Tennessee Association for Children's Early Education	10/08/2021		Abby Watkins	Online recorded
Tennessee Environmental Education Association	10/02/2021		Abby Watkins	Online live
Tennessee Environmental Education Association	09/24/2022	Moscow, TN	Colette Carrabba	In person
Tennessee Mathematics Teachers Association	10/22/2022	Chattanooga, TN	Deborah McAllister and Lisa Wilkes	In person
Tennessee TESOL	09/16/2022		Abby Watkins	Online live
University of Memphis	Fall 2021	Memphis, TN	Cathy Meredith	In person
Texas				
AP Summer Institute - Rice University	07/12/2021	Houston, TX		Online recorded
AP Summer Institute - Rice University	07/12/2021	Houston, TX		Online recorded
AP Summer Institute - Rice University	07/13/2021	Houston, TX		Online recorded
AP Summer Institute - Rice University	07/14/2021	Houston, TX	Katherine Cantu	Online live
AP Summer Institute - Rice University	07/20/2021	Houston, TX	Laura Short and Rafael Woldeab	Online live
AP Summer Institute - Rice University	07/20/2021	Houston, TX	Anthony Zanin	Online live
AP Summer Institute - Rice University	07/20/2021	Houston, TX		Online recorded
AP Summer Institute - Rice University	07/26/2021	Houston, TX	Amy Fassler	Online live
AP Summer Institute - Rice University	07/14/2022	Houston, TX	Barbara Huth	Online live
AP Summer Institute - Rice University	07/19/2022		Kenneth Keller	Online live
AP Summer Institute - Rice University	07/20/2022	Houston, TX	Katie Grams	Online live
AP Summer Institute - Rice University	07/25/2022	Houston, TX		Online recorded
AP Summer Institute - Southern Methodist University	07/19/2021	Plano, TX		Online recorded
AP Summer Institute - Southern Methodist University	07/21/2021	Plano, TX	Pete Bailey and Carol Bliese	Online live
AP Summer Institute - Texas Christian University	06/27/2021	Fort Worth, TX		Online recorded
AP Summer Institute - Texas Christian University	06/28/2021	Fort Worth, TX		Online recorded
AP Summer Institute - Texas Christian University	06/29/2021	Ft. Worth, TX	Lindsey Bailey and Abby Watkins	Online live
AP Summer Institute - Texas Christian University	07/13/2021	Ft. Worth, TX	Lindsey Bailey	Online live
AP Summer Institute - Texas Christian University	07/13/2022	Fort Worth, TX	Brian Kaestner	In person
AP Summer Institute - Texas Christian University	07/13/2022	Fort Worth, TX	Katie Grams	Online live
AP Summer Institute - Texas Lutheran University	07/05/2021	Seguin, TX	Brian Kaestner	In person
AP Summer Institute - Texas Lutheran University	07/12/2021		Linda Hammon	In person
AP Summer Institute - Texas Lutheran University	07/13/2022	Seguin, TX	Katie Grams	In person
AP Summer Institute - University of Houston	06/21/2022	Houston, TX	Abby Watkins	Online live
AP Summer Institute - University of Houston	07/26/2022	Houston, TX	Katie Grams	Online live
AP Summer Institute - University of Texas at Arlington	06/23/2021	Arlington, TX	Anthony Zanin	Online live
AP Summer Institute - University of Texas at Arlington	06/28/2021	Arlington, TX		Online recorded
AP Summer Institute - University of Texas at Arlington	06/13/2022	Arlington, TX		Online recorded
AP Summer Institute - University of Texas at Arlington	06/29/2022	Arlington, TX	Barbara Huth	Online live
AP Summer Institute - University of Texas at Austin	06/17/2021		Rafael Woldeab and Lindsey Bailey	Online live
AP Summer Institute - University of Texas at Austin	06/29/2021	Austin, TX		Online recorded
AP Summer Institute - University of Texas at Austin	07/06/2021	Austin, TX		Online recorded
AP Summer Institute - University of Texas at Austin	06/23/2022	Austin, TX	Barbara Huth	Online live
AP Summer Institute - University of Texas at Austin	07/19/2022	Austin, TX	Max Lu	Online live
AP Summer Institute - University of Texas at Austin	07/25/2022	Austin, TX		Online recorded
AP Summer Institute - University of Texas at Dallas	07/26/2021		Amanda Killough	In person
AP Summer Institute - University of Texas at El Paso	06/21/2021		Amanda Killough	In person
AP Summer Institute - University of Texas at El Paso	06/21/2022	El Paso, TX	Abby Watkins	Online live
AP Summer Institute - University of Texas at Rio Grande Valley	06/22/2021	Edinburg, TX	Laura Short and Rafael Woldeab	Online live
AP Summer Institute - University of Texas at Rio Grande Valley	07/12/2021	Edinburg, TX		Online recorded
AP Summer Institute - University of Texas at Rio Grande Valley	06/20/2022	Edinburg, TX	Katherine Cantu	Online live
AP Summer Institute - University of Texas at Rio Grande Valley	06/21/2022	Edinburg, TX	Barbara Huth	Online live

AP Summer Institute - University of Texas at San Antonio	06/21/2021	San Antonio, TX		Online recorded
AP Summer Institute - University of Texas at San Antonio	06/21/2021	San Antonio, TX		Online recorded
AP Summer Institute - University of Texas at San Antonio	07/26/2021	San Antonio, TX		Online recorded
AP Summer Institute - University of Texas at San Antonio	08/02/2021	San Antonio, TX		Online recorded
AP Summer Institute - University of Texas at San Antonio	07/14/2022	San Antonio, TX	Katie Grams	In person
AP Summer Institute - University of Texas at San Antonio	08/04/2022	San Antonio, TX	Katie Grams	Online live
AP Summer Institute - University of Texas at Tyler	07/27/2021	Tyler, TX	Abby Watkins and Gail Luera	Online live
Baylor University	10/26/2021	Waco, TX	Trena Wilkerson	In person
Baylor University	11/01/2021	Waco, TX	Trena Wilkerson	In person
Baylor University	10/25/2022	Waco, TX	Trena Wilkerson	In person
Central Texas Council of Teachers of Mathematics	03/26/2022	Waco, TX	Amy Velchoff	In person
Conference for the Advancement of Mathematics Teaching	07/19/2021	Houston, TX	Carol Bliese	Online recorded
Conference for the Advancement of Mathematics Teaching	07/19/2021	Houston, TX	Carol Bliese	Online recorded
Conference for the Advancement of Mathematics Teaching	07/15/2022	San Antonio, TX	Cynthia Schneider	In person
National Association for Bilingual Education	04/28/2021	Houston, TX	Laura Short	Online live
National Science Teaching Association	03/31/2022	Houston, TX	Abby Watkins and Pamela Wasserman	In person
National Science Teaching Association	04/02/2022	Houston, TX	Tammy Tracy	In person
Rio Grande Valley Council of Teachers of Mathematics	06/26/2021		Cynthia Schneider	Online live
San Jacinto College	03/23/2022	San Jacinto, TX	Barbara Huth	Online live
Science Teachers Association of Texas	11/11/2021	Fort Worth, TX	Jiyoon Yoon	In person
Science Teachers Association of Texas	11/12/2021	Fort Worth, TX	Gail Dickinson	In person
Science Teachers Association of Texas	02/24/2022		Gail Dickinson	Online recorded
Science Teachers Association of Texas	11/10/2022	Dallas, TX	Carey Humphrey	In person
Texas Association for Bilingual Education	10/30/2021	El Paso, TX	Joyce Miller	Online live
Texas Association for Environmental Education	09/24/2021		Gail Dickinson	Online live
Texas Association for the Education of Young Children	10/14/2021	Galveston, TX	Judith Maima-Skeele	In person
Texas Association for the Education of Young Children	02/10/2022		Judith Maima-Skeele	Online recorded
Texas Association for the Education of Young Children	09/17/2022	San Antonio, TX	Judith Maima-Skeele	In person
Texas Association for the Education of Young Children - Brazos Valley Chapter	04/09/2022	Bryan, TX	Judith Maima-Skeele	In person
Texas Christian University	09/27/2022	Fort Worth, TX	Alison Reese	In person
Texas Christian University	09/29/2022	Fort Worth, TX	Alison Reese	In person
Texas Council for the Social Studies	11/12/2021	Round Rock, TX	Kevin Thompson	In person
Texas Council for the Social Studies	11/13/2021	Round Rock, TX	Amanda Stanfield	In person
Texas Council for the Social Studies	10/14/2022	Denton, TX	Amanda Stanfield	In person
Texas Council for the Social Studies	10/14/2022	Denton, TX	Paul Nagel	In person
Texas State University - Round Rock Campus	Spring 2021	Round Rock, TX		Online recorded
Texas State University - Round Rock Campus	Summer 2021	Round Rock, TX		Online recorded
Texas State University - San Marcos	10/19/2021	San Marcos, TX	Yun-Wen Chan	Online live
Texas State University - San Marcos	10/28/2021	San Marcos, TX	Yun-Wen Chan	Online live
Texas State University - San Marcos	03/08/2022	San Marcos, TX	Yun-Wen Chan	In person
Texas State University - San Marcos	09/29/2022	San Marcos, TX	Gail Dickinson	In person
Texas State University - San Marcos	09/29/2022	San Marcos, TX	Gail Dickinson	In person
Texas State University - San Marcos	10/03/2022	San Marcos, TX	Gail Dickinson	In person
Texas State University - San Marcos	Spring 2021	San Marcos, TX	Gail Dickinson	Online live
Texas State University - San Marcos	Spring 2021	San Marcos, TX	Gail Dickinson	Online live
Texas State University - San Marcos	Summer 2021	San Marcos, TX	Gail Dickinson	Online live
Texas State University - San Marcos	Fall 2021	San Marcos, TX	Gail Dickinson	Online live
Texas State University - San Marcos	Spring 2022	San Marcos, TX	Jo Beth Oestreich	Online live
Texas State University - San Marcos	Fall 2022	San Marcos, TX	Jo Beth Oestreich	In person
Texas State University - San Marcos	Fall 2022	San Marcos, TX	Jo Beth Oestreich	In person
Texas State University - San Marcos	Fall 2022	San Marcos, TX	Jo Beth Oestreich	In person
University of North Texas	01/28/2021	Denton, TX	Deanne Paiva	In person

University of North Texas	10/15/2021	Denton, TX	Deanne Paiva	In person
University of North Texas	10/29/2021	Denton, TX	Deanne Paiva	In person
University of North Texas	01/25/2022	Denton, TX	Deanne Paiva	In person
University of North Texas	01/31/2022	Denton, TX	Deanne Paiva	In person
University of North Texas	Spring 2022	Denton, TX	Deanne Paiva	In person
World Affairs Council	07/12/2021	Richardson, TX	Jeanne Tunks	In person
World Affairs Council	07/11/2022	Richardson, TX	Jeanne Tunks	In person
Utah				
National Council for History Education	04/10/2021		Carol Bliese	Online live
Utah Early Childhood Conference	03/26/2021		Denise Stewardson	Online live
Utah Early Childhood Conference	03/05/2022	Ogden, UT	Laura Short	Online live
Utah Middle Level Association	01/30/2021		Sheryl Rushton	Online live
Utah Science Teacher Association	10/25/2021	Provo, UT	Denise Stewardson	In person
Utah Science Teacher Association	10/07/2022	Provo, UT	Denise Stewardson	In person
Utah Society for Environmental Education	11/04/2021		Lauren Lansdowne-Johnson	Online live
Weber State University	04/19/2021	Ogden, UT	Ezgi Yesilyurt	Online live
Weber State University	04/18/2022	Ogden, UT	Ezgi Yesilyurt	Online live
Weber State University	12/05/2022	Ogden, UT	Ezgi Yesilyurt	In person
Vermont				
AP Summer Institute - St. Johnsbury Academy	07/05/2021	St. Johnsbury, VT		Online recorded
AP Summer Institute - St. Johnsbury Academy	07/14/2021	St. Johnsbury, VT	Lindsey Bailey and Rafael Woldeab	Online live
AP Summer Institute - St. Johnsbury Academy	06/27/2022	St. Johnsbury, VT	Julie Wakefield	In person
Vermont Council of Teachers of Mathematics	10/23/2021		Rafael Woldeab	Online live
Virginia				
AP Summer Institute - Fairfax High School	06/28/2021	Fairfax, VA		Online recorded
AP Summer Institute - Fairfax High School	06/30/2021	Fairfax, VA	Abby Watkins and Lindsey Bailey	Online live
AP Summer Institute - Fairfax High School	06/22/2022	Fairfax, VA	Katie Grams and Laura Short	In person
AP Summer Institute - William and Mary	07/06/2021	Williamsburg, VA		Online recorded
AP Summer Institute - William and Mary	07/20/2021	Williamsburg, VA	Michael Mayfield	In person
AP Summer Institute - William and Mary	07/27/2021	Williamsburg, VA		Online recorded
AP Summer Institute - William and Mary	07/27/2021	Williamsburg, VA	Michael Mayfield	In person
AP Summer Institute - William and Mary	06/28/2022	Williamsburg, VA		Online recorded
AP Summer Institute - William and Mary	07/18/2022	Williamsburg, VA	Michael Mayfield	In person
George Mason University	05/10/2021	Arlington, VA	Rafael Woldeab	Online live
James Madison University	11/30/2021	Harrisonburg, VA	Rafael Woldeab	Online live
James Madison University	11/29/2022	Harrisonburg, VA	Barbara Huth	In person
James Madison University	11/29/2022	Harrisonburg, VA	Katie Grams	In person
Marymount University	02/08/2021	Arlington, VA	Laura Short	Online live
Marymount University	10/06/2021	Arlington, VA	Laura Short	In person
Marymount University	01/19/2022	Arlington, VA	Lindsey Bailey	Online live
Marymount University	10/05/2022	Arlington, VA	Carol Bliese	Online live
NAI Chesapeake Region	03/02/2022	Herndon, VA	Laura Short	Online live
University of Richmond	11/28/2022	Richmond, VA	Patricia Stohr-Hunt and Allison Brenning	In person
Virginia Association for the Education of Young Children	03/11/2021	Hampton, VA	Jodi Larson	Online recorded
Virginia Association for the Education of Young Children	03/17/2022	Hampton, VA	Sara Lenhart	In person
Virginia Association of Science Teachers	11/16/2021		Rafael Woldeab	Online live
Virginia Association of Science Teachers	11/12/2022	Williamsburg, VA	Anne Mannarino	In person
Virginia Commonwealth University	04/14/2021	Richmond, VA	Rafael Woldeab and Carol Bliese	Online live
Virginia Commonwealth University	10/25/2021	Richmond, VA	Rafael Woldeab and Abby Watkins	Online live
Virginia Commonwealth University	10/25/2021	Richmond, VA	Rafael Woldeab and Abby Watkins	Online live
Virginia Commonwealth University	10/29/2021	Richmond, VA	Rafael Woldeab and Abby Watkins	Online live
Virginia Commonwealth University	04/04/2022	Richmond, VA	Laura Short	Online live
Virginia Commonwealth University	04/20/2022	Richmond, VA	Patricia Stohr-Hunt	In person
Virginia Commonwealth University	10/27/2022	Richmond, VA	Katie Grams	Online live
Virginia Commonwealth University	11/14/2022	Richmond, VA	Carol Bliese	Online live
Virginia Council of Teachers of Mathematics	03/13/2021		Abby Watkins	Online live
Virginia Council of Teachers of Mathematics	03/18/2022	Norfolk, VA	Abby Watkins	Online live

Washington				
Antioch University Seattle	06/21/2021	Seattle, WA	Pete Bailey	Online live
Antioch University Seattle	07/29/2021	Seattle, WA	Rafael Woldeab	Online live
Antioch University Seattle	08/18/2022	Seattle, WA	Katie Grams and Lindsey Bailey	Online live
AP Summer Institute - Everett Public Schools	08/16/2021	Everett, WA		Online recorded
AP Summer Institute - Everett Public Schools	08/16/2021	Everett, WA		Online recorded
AP Summer Institute - Everett Public Schools	08/15/2022	Everett, WA		Online recorded
E3 Washington	11/13/2021		Denise Dumouchel	Online live
E3 Washington	11/02/2022		Laura Short	Online live
Gonzaga University	Spring 2021	Spokane, WA	Jonas Cox	Online live
Pacific Lutheran University	05/11/2021	Tacoma, WA	Abby Watkins and Rafael Woldeab	Online live
Pacific Lutheran University	11/05/2021	Tacoma, WA	Rafael Woldeab	Online live
Pacific Lutheran University	11/05/2021	Tacoma, WA	Abby Watkins and Rafael Woldeab	Online recorded
Pacific Lutheran University	04/26/2022	Tacoma, WA	Barbara Huth and Lindsey Bailey	Online live
Pacific Lutheran University	09/30/2022	Tacoma, WA	Katie Grams	Online live
Pacific Lutheran University	Summer 2021	Tacoma, WA	Bonnie Beaudoin	Online live
Pacific Lutheran University	Summer 2021	Tacoma, WA	Bonnie Beaudoin	Online live
Pacific Lutheran University	Fall 2021	Tacoma, WA	Bonnie Beaudoin	Online live
Portland State University	03/31/2022	Washougal, WA	Gayle Thieman	In person
Seattle University	02/15/2021	Seattle, WA	Denise Dumouchel	Online live
Seattle University	10/25/2022	Seattle, WA	Mark Roddy	In person
University of Washington, Tacoma	Summer 2022	Tacoma, WA	Bonnie Beaudoin	Online live
University of Washington, Tacoma	Summer 2022	Tacoma, WA	Bonnie Beaudoin	Online live
WAESOL Conference	10/23/2021		Jonas Cox	Online live
WAESOL Conference	10/22/2022	Des Moines, WA	Khodadad Kaviani	In person
Washington Association for Bilingual Education	04/30/2022	Bellevue, WA	Mark Roddy	In person
Washington Association for the Education of Young Children	10/20/2022	Lynnwood, WA	Mark Roddy	In person
West Virginia				
AP Summer Institute - West Virginia Department of Education	07/27/2022		Abby Watkins	Online live
AP Summer Institute - West Virginia Department of Education	08/01/2022		Michael Mayfield	In person
Fairmont State University	Spring 2022		Tamara Westfall	Online recorded
West Virginia Council of Teachers of Mathematics	04/24/2021		Tamara Westfall	Online live
West Virginia Science Teachers Association	10/28/2021	Roanoke, WV	Tamara Westfall	In person
West Virginia Science Teachers Association	10/27/2022	Davis, WV	Tamara Westfall	In person
West Virginia TESOL	04/09/2022	Huntington, WV	Tamara Westfall	Online live
Wisconsin				
AP Summer Institute - Rice University	07/25/2022	Madison, WI	Amy Fassler	Online live
AP Summer Institute - University of Wisconsin, Madison	06/21/2021	Madison, WI	Julie Hilborn	Online live
AP Summer Institute - University of Wisconsin, Madison	06/21/2022	Madison, WI	Amy Fassler	In person
AP Summer Institute - University of Wisconsin, Madison	07/11/2022	Madison, WI	Amy Fassler	Online live
Carroll University	02/23/2021	Waukesha, WI	Laura Short and Pete Bailey	Online live
Carroll University	02/25/2021	Waukesha, WI	Laura Short and Lindsey Bailey	Online live
Carthage College	11/01/2021	Kenosha, WI	Patricia Rieman	In person
Carthage College	11/15/2021	Kenosha, WI	Patricia Rieman	In person
Carthage College	04/04/2022	Kenosha, WI	Patricia Rieman	In person
Carthage College	04/12/2022	Kenosha, WI	Patricia Rieman	In person
Carthage College	11/07/2022	Kenosha, WI	Patricia Rieman	In person
Carthage College	November 2022	Kenosha, WI	Patricia Rieman	In person
Family & Consumer Sciences Education and WI DPI Child Care Conference	09/30/2022	Menomonie, WI	Sue Strutz	In person
University of Wisconsin - La Crosse	04/13/2021	La Crosse, WI	Heidi Masters	Online recorded
University of Wisconsin - La Crosse	04/14/2021	La Crosse, WI	Heidi Masters	Online recorded
University of Wisconsin - La Crosse	11/09/2021	La Crosse, WI	Heidi Masters	Online recorded
University of Wisconsin - La Crosse	04/11/2022	La Crosse, WI		Online recorded
University of Wisconsin - La Crosse	04/11/2022	La Crosse, WI		Online recorded
University of Wisconsin - La Crosse	11/09/2022	La Crosse, WI	Heidi Masters	In person

University of Wisconsin - La Crosse	11/10/2022	La Crosse, WI	Heidi Masters	In person
University of Wisconsin - Milwaukee	10/21/2021	Milwaukee, WI	Howard Aprill	In person
University of Wisconsin - Milwaukee	10/18/2022	Milwaukee, WI	Howard Aprill	In person
University of Wisconsin - River Falls	05/28/2021	River Falls, WI		Online recorded
University of Wisconsin - River Falls	09/23/2021	River Falls, WI		Online recorded
University of Wisconsin - River Falls	09/23/2021	River Falls, WI		Online recorded
University of Wisconsin - River Falls	09/23/2021	River Falls, WI		Online recorded
University of Wisconsin - River Falls	02/17/2022	River Falls, WI		Online recorded
University of Wisconsin - River Falls	06/02/2022	River Falls, WI	Eric Sanden	In person
University of Wisconsin - River Falls	07/19/2022	River Falls, WI	Timothy Buttles	In person
University of Wisconsin - River Falls	09/29/2022	River Falls, WI	Eric Sanden	In person
University of Wisconsin - River Falls	09/29/2022	River Falls, WI	Eric Sanden	In person
University of Wisconsin - River Falls	Spring 2021	River Falls, WI		Online recorded
University of Wisconsin - River Falls	July 2022	River Falls, WI		Online recorded
University of Wisconsin - Superior	Spring 2021	Superior, WI	Tanzeem Ali	Online recorded
University of Wisconsin - Superior	Spring 2021	Superior, WI	Tanzeem Ali	Online recorded
Wisconsin Association for Bilingual Education	04/24/2021		Kaycee Rogers	Online live
Wisconsin Association for Environmental Education	11/13/2021	Green Bay, WI	Howard Aprill	In person
Wisconsin Association for Environmental Education	11/04/2022	Franklin, WI	Howard Aprill	In person
Wisconsin Association for Family and Consumer Sciences	03/06/2021		Pete Bailey and Abby Watkins	Online live
Wisconsin Association for Talented and Gifted	10/05/2021	Wisconsin Dells, WI	Lindsey Bailey	Online live
Wisconsin Association for Talented and Gifted	10/04/2022	Wisconsin Dells, WI	Sue Strutz	In person
Wisconsin Council for the Social Studies	03/14/2021		Howard Aprill	Online live
Wisconsin Council for the Social Studies	03/12/2022	Wisconsin Dells, WI	Zaynab Baalbaki	In person
Wisconsin Early Childhood Association	09/29/2022		Lindsey Bailey	Online recorded
Wisconsin Mathematics Council	05/04/2022	Green Lake, WI	Zaynab Baalbaki	In person
Wisconsin Society of Science Teachers	04/07/2022	Wausau, WI	Stephanie Ruder	In person
Wisconsin Society of Science Teachers	Spring 2021	Wisconsin Dells, WI	Stephanie Ruder	Online recorded
Wyoming				
University of Wyoming	09/29/2021	Laramie, WY	Andrea Borowczak	In person
CANADA				
Alberta				
Burman University	09/20/2021	Lacombe, AB	Julia Falla-Wood	In person
Mathematics Council of the Alberta Teachers' Association	10/22/2021		Christine Tippett and Lindsey Bailey	Online live
University of Alberta	10/29/2021	Edmonton, AB	Carol Bliese	Online live
University of Alberta	10/28/2022	Edmonton, AB	Katie Grams	Online live
British Columbia				
British Columbia Social Studies Teachers Association	02/12/2021		Lindsey Bailey and Janet Ruest	Online live
British Columbia Social Studies Teachers Association	10/22/2021		Rafael Woldeab	Online live
Canadian Geographic Education	08/19/2021		Janet Ruest and Pete Bailey	Online live
Northwest Aquatic and Marine Educators	08/19/2021		Laura Short	Online live
University of Victoria	02/08/2021	Victoria, BC	Lindsey Bailey and Rafael Woldeab	Online live
University of Victoria	02/16/2021	Victoria, BC	Pete Bailey and Laura Short	Online live
University of Victoria	07/22/2021	Victoria, BC	Jennifer Thom and Pete Bailey	Online live
University of Victoria	11/09/2021	Victoria, BC	Jennifer Thom	In person
University of Victoria	11/04/2022	Victoria, BC	Jennifer Thom	In person
University of Victoria	11/04/2022	Victoria, BC	Jennifer Thom	In person
Vancouver Island University	02/10/2021	Nanaimo, BC	Laura Short and Rafeal Woldeab	Online live
Vancouver Island University	02/10/2021	Nanaimo, BC	Laura Short and Abby Watkins	Online live
Vancouver Island University	10/04/2021	Nanaimo, BC	Janet Ruest	In person
Vancouver Island University	10/07/2021	Nanaimo, BC	Janet Ruest	In person
Vancouver Island University	10/08/2021	Nanaimo, BC	Janet Ruest	In person
Vancouver Island University	02/28/2022	Nanaimo, BC	Lindsey Bailey	Online live
Vancouver Island University	03/02/2022	Duncan, BC	Jennifer Thom	In person
Vancouver Island University	Spring 2021	Nanaimo, BC		Online recorded
Vancouver Island University	Spring 2021	Nanaimo, BC		Online recorded
Vancouver Island University	Spring 2021	Nanaimo, BC		Online recorded

Vancouver Island University	Fall 2022	Nanaimo, BC		Online recorded
Vancouver Island University	Fall 2022	Nanaimo, BC		Online recorded
Vancouver Island University	November 2022	Nanaimo, BC		Online recorded
Manitoba				
Science Teachers Association of Manitoba	10/22/2021		Lindsey Bailey	Online live
TESL Manitoba	05/20/2022		Laura Short	Online live
Nova Scotia				
Acadia University	Summer 2021	Wolfville, NS		Online recorded
Ontario				
Ontario Association for Geographic and Environmental Education	10/16/2021		Lindsey Bailey	Online live
Ontario Society for Environmental Education	05/07/2021		Sarah Baillie	Online live
Queen's University	12/07/2021	Kingston, ON	Laura Short	Online live
Seneca College	04/12/2021	Toronto, ON	Laurie Georgopoulos and Donna Gilmore	Online live
Seneca College	04/13/2021	Toronto, ON	Laurie Georgopoulos and Donna Gilmore	Online live
Seneca College	08/10/2021	Toronto, ON	Laurie Georgopoulos and Donna Gilmore	Online live
Seneca College	08/10/2021	Toronto, ON	Laurie Georgopoulos and Donna Gilmore	Online live
Trent University	11/10/2021	Peterborough, ON	Abby Watkins	Online live
Trent University	11/09/2022	Peterborough, ON	Reginald Hartwick	In person
University of Ottawa	03/03/2021	Ottawa, ON	Rafael Woldeab	Online live
University of Ottawa	10/12/2021	Ottawa, ON	Rafael Woldeab	Online live
University of Ottawa	11/23/2021	Ottawa, ON	Rafael Woldeab and Laura Short	Online live
University of Ottawa	11/02/2022	Ottawa, ON	Katie Grams	Online live
University of Ottawa	Summer 2021	Ottawa, ON		Online recorded
University of Ottawa - IndiVisible Conference	04/26/2022	Ottawa, ON	Katie Grams	Online live
University of Ottawa - IndiVisible Conference	04/27/2022	Ottawa, ON	Katie Grams	Online live
University of Toronto	09/27/2021	Toronto, ON	Carol Bliese	Online live
University of Toronto	09/29/2021	Toronto, ON	Carol Bliese	Online live
University of Toronto	10/17/2022	Toronto, ON	Carol Bliese	Online live
University of Toronto	10/19/2022	Toronto, ON	Paul Hackl	In person
University of Toronto	Spring 2021	Toronto, ON		Online recorded
University of Toronto	May 2021	Toronto, ON		Online recorded
University of Toronto	Summer 2021	Toronto, ON		Online recorded
University of Toronto	Summer 2021	Toronto, ON		Online recorded
University of Toronto	Summer 2021	Toronto, ON		Online recorded
University of Toronto	Summer 2021	Toronto, ON		Online recorded
University of Toronto	Summer 2021	Toronto, ON		Online recorded
Wilfrid Laurier University	01/17/2022	Waterloo, ON	Laura Short and Abby Watkins	Online live
Wilfrid Laurier University	01/17/2022	Waterloo, ON	Lindsey Bailey and Abby Watkins	Online live
Wilfrid Laurier University	01/20/2022	Waterloo, ON	Laura and Abby Watkins	Online live
Wilfrid Laurier University	01/20/2022	Waterloo, ON	Lindsey and Abby Watkins	Online live
Quebec				
McGill University	Fall 2021	Montreal, QC	Limin Jao	In person
McGill University	Spring 2022	Montreal, QC	Limin Jao	Online live
NATIONAL/UNKNOWN				
AP Summer Institute - (unknown location)	08/02/2021			Online recorded
AP Summer Institute - (unknown location)	08/09/2021			Online recorded
AP Summer Institute - (unknown location)	09/28/2021		Amanda Killough	Online live
AP Summer Institute - (unknown location)	Summer 2021			Online recorded
AP Summer Institute - (unknown location)	Summer 2021			Online recorded
NAI Heartland Regional Conference	03/23/2022		Howard Aprill	Online live
National Council for Geographic Education	01/10/2022		Lindsey Bailey	Online live
National Council for Geographic Education	09/14/2022		Barbara Huth	Online live
National Marine Educators Association	07/15/2021		Laura Short	Online live
North American Association for Environmental Education	10/14/2021		Laura Short	Online live

School Science and Mathematics Association	10/29/2021		Sarah Rivera and Lindsey Bailey	Online live
INTERNATIONAL				
Gyeongin National University of Education	09/23/2021	South Korea	Lindsey Bailey and Rafael Woldeab	Online live
Ludwigsburg International Classrooms Program	10/13/2022	Germany	Barbara Huth	Online live
University of Mindanao	08/17/2021	Philippines	Carol Bliese and Pete Bailey	Online live
University of Mindanao	12/09/2021	Philippines	Rafael Woldeab	Online live
University of Mindanao	10/05/2022	Philippines	Gail Dickinson	Online live

APPENDIX B

FOLLOW-UP SURVEY

POPULATION EDUCATION Workshop Questionnaire 2021-2022
A program of Population Connection

Welcome

Thank you offering feedback. As a token of our thanks for completing the survey, you will be offered free access to a full PopEd curriculum of your choosing.

We will also raffle off ten \$50 Amazon gift cards. Everyone who completes the survey will be entered in the drawing.

The survey will be available until May 26, 2023.

***Note: Only complete this survey if you have participated in a Population Education workshop at a conference session, professional development workshop or a pre-service education class. If you have not attended a workshop, you are not eligible for a free gift.**

Location

1. Where do you live?

U.S.

Canada

Other

(If other, please specify city and country)

2. If you're in the U.S., please select the state or territory.

State/Territory

State/Territory

3. If you're in Canada, please select the province.

Province

Province

General Information

4. Which of the below best describes your primary role in education?

- School-based teacher
- Graduate student
- Undergraduate student
- College or University faculty
- Administrator
- Nature/Science/EE Center Staff or other non-formal educator
- Curriculum specialist/curriculum writer
- Before/Afterschool care
- Specialist (reading specialist, librarian/media, special education, gifted education, ESOL, STEM)
- Other (please specify)

5. What grade level(s) do you work with or plan to work with? (Check all that apply)

- PreK
- K - 2
- 3 - 5
- 6 - 8
- 9 - 12
- College

Workshop Format

* 6. What format was the Population Education workshop that you participated in?

- In-person/face-to-face
- Online/virtual (live webinar, pre-recorded webinar, Canvas course)
- I'm not sure
- I have not attended a PopEd workshop

Population Education Online Workshops

PopEd's online workshops can take several different formats. Please read the brief descriptions below before answering question 8.

- **Live webinar (synchronous):** participants engage in real-time, interacting with the presenter and other participants through chat, audio, digital tools, etc.
- **Pre-recorded webinar (asynchronous):** participants watch a video of a pre-recorded presentation. There is no live interaction with the presenter or other participants.
- **Canvas course (asynchronous):** Canvas short courses are offered to college and university pre-service students. Participants log into Canvas and then work at their own pace through modules of PopEd lesson videos and reflection questions.

* 7. What type of online workshop did you attend?

- A live webinar (synchronous)
- A recorded webinar (asynchronous)
- A Canvas course (asynchronous)

8. Where did you participate in the PopEd online workshop?

- As part of my college/university class
- At a conference
- Through a PopEd hosted event (Earth Day webinar, Teaching Air Pollution webinar, etc.)
- As part of a professional development for my school or district
- As part of an AP Summer Institute
- Other (please specify)

9. In comparison to other professional development webinars you've attended, how did the Population Education online workshop compare in terms of...

	Poor (1)	(2)	Average (3)	(4)	Superior (5)	N/A
Content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usefulness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presentation quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Virtual delivery methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to integrate what I learned into my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. What is your overall rating of the lessons and materials presented in the online workshop?

- Poor (1)
 Fair (2)
 Good (3)
 Excellent (4)

Population Education In-Person Workshops

* 11. Where did you attend a Population Education workshop?

- At a conference
 In a university/college class
 As part of a professional development for my school or district
 Other (please specify)

12. In comparison to other professional development workshops you've attended, how did the Population Education workshop compare in terms of...

	Poor (1)	(2)	Average (3)	(4)	Superior (5)	N/A
Content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usefulness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hand-outs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presentation quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to integrate what I learned into my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. What is your overall rating of the lessons and materials presented in the workshop?

- Poor (1)
 Fair (2)
 Good (3)
 Excellent (4)

Workshop Materials (In-person and Online)

Attendees at both in-person and online workshops receive access to one of PopEd's online curricula through a Curriculum Access Card. The Access Card includes a web link for the curriculum as well as a passcode. Participants of in-person workshops receive a handout of the Access Card and participants at online workshops receive a virtual Access Card - either a PDF, or the link and passcode.

14. Which curriculum did you receive at the workshop?

- Teaching Population: Hands-on Activities (K-12)
- Counting on People: K-5 Activities for Global Citizenship (K-5)
- People and the Planet: Lessons for a Sustainable Future (Middle School)
- Earth Matters: Studies for our Global Future (High School)
- Spanish/English online packet (Nuestro Mundo, Nuestro Futuro)
- 330 Million in the USA online packet
- I don't remember
- I didn't receive a curriculum

15. Have you shared information about the PopEd program with other educators?
(information, lessons, digital tools, website, etc.)

- Yes
- No

* 16. Have you already used the materials obtained in the workshop you attended?

- Yes
- No

Yes, I have used the materials I received at the workshop

17. Which workshop materials have you used with students? (Check all that apply)

- Lessons, readings, or graphics from the curriculum I received
- Lesson plans that were demonstrated during the workshop
- Digital tools that were shared during my online workshop
- Supplemental resources from the workshop (poster, data sheet, etc.)
- World population "dot" video
- World Population History website (www.worldpopulationhistory.org)
- Materials from the PopEd website (www.populationeducation.org)
- I don't remember
- Other (please specify)

18. What subject area did you teach using the materials? (Check all that apply)

- Social Studies
- Science
- Environmental Sciences (either regular or AP)
- Geography (either regular or AP)
- Math
- Language Arts
- Gifted and Talented
- Family and Consumer Sciences
- Pre-Service teachers (pedagogy, teaching methods, etc.)
- Other (please specify)

19. What grade level did you teach using the materials? (Check all that apply)

- K-2
- 3-5
- 6-8
- 9-12
- College/university students
- College/university pre-service teachers

20. If you teach an AP course, have you used any Population Education materials with these students?

- Yes, I have used the materials in an AP class.
- No, I teach AP but have not used the materials in that class.
- No, I do not teach any AP classes.

21. If you answered yes above, please indicate which AP class you've used the materials with. (Check all that apply)

- AP Environmental Science
- AP Human Geography
- AP World History
- AP US History
- I do not teach any AP classes
- Other (please specify)

22. How frequently do you use Population Education materials?

- Monthly or more
- Quarterly
- Once per semester
- Once per year
- Every other year
- I do not know
- I do not use

23. In what ways have you used the materials? (Check all that apply)

- For one or two lessons
- As a whole unit (at least three hours)
- To fulfill state standards or frameworks for the subject area I teach
- To provide Population Education training or consultation for other educators
- To write curriculum for school, state, or national distribution
- Other (please specify)

24. With how many students did you use Population Education materials during the school year?

25. How many different Population Education lessons have you shared with students since attending the workshop?

26. How well do Population Education materials align with your teaching standards?

- Poor (1) Fair (2) Good (3) Excellent (4)

27. If you follow Common Core teaching standards, how well do Population Education materials align?

- Poor (1)
 Fair (2)
 Good (3)
 Excellent (4)
 I do not follow Common Core

28. If you follow Next Generation Science Standards (NGSS), how well do Population Education materials align?

- Poor (1)
 Fair (2)
 Good (3)
 Excellent (4)
 I do not follow NGSS

29. Do you agree with the following statements? The Population Education materials I used in my classroom...

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
effectively engaged my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increased students' awareness of environmental and global issues related to population.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
improved critical thinking and/or problem solving skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
changed students' behaviors with each other, their community, or the natural world.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. What are the impacts of using Population Education materials with your students? (Check all that apply)

- Learning population related content
- Broader awareness of global issues
- Better understanding of environmental issues
- Increased activism
- Better understanding of standards
- Improving critical thinking and analysis skills
- No impact
- Other (please specify)

31. If there is anything you would like to see added to PopEd lesson plans, curricula, or supplemental materials, please describe below.

Obstacles

* 32. Have you encountered any obstacles while using Population Education materials?

Yes

No

Yes, I have encountered obstacles

33. What obstacles did you encounter?

34. How did you resolve them?

Yes, I have encountered obstacles

33. What obstacles did you encounter?

34. How did you resolve them?

No, I have not used the materials I received at the workshop

35. Why have you not used Population Education activities/materials? (Please pick the answer that best applies)

- I don't have my own classroom yet
- I have been teaching virtually and don't know how to adapt PopEd lessons
- I haven't had time to figure out how to integrate into my teaching
- I had already passed population studies in my curriculum
- The materials don't fit any of the classes I teach
- I forgot about them
- I lost them
- I didn't receive them
- None of the above
- Other (please specify)

* 36. Do you plan to use the materials in the future?

- Yes
- No

Yes, I plan to use the materials in the future

37. In what ways do you plan to use the materials? (Check all that apply)

- For one or two lessons
- As a whole unit (at least 3 hours)
- To fulfill state standards or frameworks for the subject area I teach
- To provide population education training or consultation for other educators
- To write curriculum for school, state, or national distribution
- Other (please specify)

Post Workshop Support

38. Do you receive PopEd's newsletter, The Population Educator?

Yes

No

* 39. Have you visited our website - www.PopulationEducation.org?

Yes

No

Yes, I've visited the website

40. How have you used the Population Education website? (Check all that apply)

To download lesson plans

To access supplemental materials like student readings or infographics

To watch lesson plan demo videos

To read the PopEd blog

To view standards correlations on the standards matching database

To request a PD workshop

To watch past webinars in the On-Demand Webinar Library

To shop in the PopEd store

Other (please specify)

Additional Comments

41. Please provide any additional comments about Population Education's TEACHING MATERIALS.

42. Please provide any additional comments about the interactive Population Education WORKSHOP you attended (either in-person or online).

Get more involved!

43. Want more resources from PopEd? Sign-up to receive our newsletter every other month. Lesson plans, webinar sign-ups, book lists and more. Please enter your name and email below.

Name

Email

44. PopEd's volunteer Trainers conduct PopEd workshops for current and future K-12 educators in their local areas. Learn more [here](#). If you are interested in becoming a PopEd volunteer Trainer, please include your name and email below. (Educators currently enrolled in a pre-service teacher education program are not eligible.)

Name

Email

45. Are you an pre-service education instructor? If you would like to invite PopEd to present a free professional development workshop (in-person or online) for your pre-service class, enter your name and email below and we will follow up. Or, fill out this [PopEd workshop request form](#)!

Name

Email

46. We also offer in-service PDs for current teachers at low or no cost, depending on the format and level of customization. If you would like PopEd to present a professional development workshop (in-person or online) for your school or district, enter your name and email below and we will follow up. Or, fill out this [PopEd workshop request form](#)!

Name

Email

Not Eligible to Complete Survey

Thank you for your interest in the Population Education program. This survey can only be completed by educators who have attended a Population Education workshop or webinar (in-person or online). To find lessons, videos, and other great classroom resources for teaching about population dynamics and related issues in your classroom, visit www.populationeducation.org. Sign-up for our newsletter below to receive program updates, webinar opportunities and more.

47. Want more resources from PopEd? Sign-up to receive our newsletter every other month. Lesson plans, webinar sign-ups, book lists and more. Please enter your email below.

Name

Email

Thank You!

Thank you for completing our survey and providing us with valuable feedback on the Population Education workshop model and materials.

To show our appreciation, we would like to offer you free access to a PopEd curriculum of your choice (each includes over 40 lessons!). Please select a curriculum below and include your name and email. Access to your chosen curriculum will be sent electronically once the survey closes.

We are also holding a raffle of 10 \$50 Amazon gift cards, open to everyone who completes the survey. Please be sure to leave your name and email below so that you can be entered to win.

Thank you again for your time and feedback!

48. First Name

49. Last Name

* 50. Email address

51. Which curriculum would you like to receive?

- Elementary - Counting on People: K-5 Activities for Global Citizenship
- Middle School - People and the Planet: Lessons for a Sustainable Future
- High School - Earth Matters: Studies for our Global Future
- Please don't send me curriculum access.

APPENDIX C

ADDITIONAL COMMENTS ON POPED'S INTERACTIVE WORKSHOPS

Note: All comments have been transcribed exactly as they appeared on the survey.

1. Na
2. The workshop was very interactive and included models and information that seem to be easily adaptable for different classroom settings.
3. It was very informative and interesting.
4. It was engaging, but the materials used during that time didn't apply to what I taught this year.
5. It is interactive and informative at the same time, as population educ. able to interact and disseminate information across the globe.
6. I don't really have any comments
7. I enjoyed the format of participating in the lessons as part of learning about them.
8. na
9. Here are some initial OCW links below (contact us by phone or email for more): <https://www.scribd.com/user/15397192/The-Wecskaop-Project>
10. Thank you for this opportunity.
11. It is a bit difficult to remember the session because it was almost two years ago - it would have been helpful to have received the survey sooner
12. N/A
13. Provide different perspectives on critical issues.
14. The workshop was helpful and provided me with information that I can use as I continue my career in education.
15. Good presentation
16. approachable instructor that actually understood what a classroom environment is like.
17. The instructor was fabulous; Janet Beach-Davis. She was able to guide us through the lessons as well as answer any questions we had.
18. The professional development class presented a number of useful examples of engaging activities to do with students.
19. This was one of the best presentations I have been to thus far. The implementation of an actual activity from the curricula did a great job showcasing what to expect from these lesson plans.
20. Presenters were wonderful! (WATESOL conference 2022)
21. It was informative. And it got me excited about teaching this subject.
22. The Population Education Workshop I attended was great. Accessing the material at a later date was just a bit confusing. I had to find the activation code and then remember the login and password.
23. Thank you
24. None at this time.
25. I was really amazed by the numbers and accessibility of the numbers
26. "Interdisciplinary Lessons for a World of 8 Billion" was very interesting and I used it in my environmental science and AP Biology class.
27. Our trainer was fabulous and tailored the workshop specifically to the needs of preservice educators.
28. N/A
29. Thank you for the lessons!
30. The interactive online workshop was very engaging and gave me clear ideas on how to implement materials in my own classroom.
31. Population presentation on water at the World Affairs Council of DFW
32. The workshop was interesting and engaging.
33. In person was fun and allowed us to look at curriculum. There were two college courses where the workshops were held and I thought both of them were fantastic.
34. Presenter was great! Even shared materials with me via email after the conference!
35. Should do each year at teacher conferences
36. I liked 2 of the lessons very much but there was one about a calendar that I found extremely confusing - I love analogies but found that one way too much work for the outcome.

37. Even though I do not use the virtual method of the game that was played, I thought it was very well adapted to virtual or hybrid learning.
38. Been going to workshops for 4 years and always learned useful strategies I could use. Presenters were professional, organized and held my interest.
39. The workshop was informative without giving info overload to a new AP teacher
40. It was at a WAESOL conference. The presenter was great. Very clearly demonstrated how the materials could be used to teach.
41. The instructor had great people skills!
42. Online
43. Very informative and workable.
44. It would interesting if Population Education provided an online certificate or some other form of training.
45. I like this kind of works of education to help provide and motivate our students and teachers .
46. I thought the in-person workshop was helpful in introducing me to Population Education materials.
47. Don't remember the details - its been quite a while
48. NA
49. The online session was great (Fall 2021). Very interactive and engaging.
50. The resources were almost undersold. Mainly because I attended in the fall and teach populations in the spring.
51. na
52. I have been involved in both face to face and online workshops--both were excellent, well organized, engaging, and timely---emphasis on contemporary topics & pedagogy--THANK YOU!
53. Na
54. It's been a while, but I remember the depth of content shared
55. My professor did a demonstration for each workshop and then we were tasked with doing our own demonstration/lesson with the lesson plans provided in the book we received. Overall, I think it was a great exercise for young educators.
56. I enjoyed it while learning new information!!
57. Easy to follow, good way to communicate information.
58. I remembered most from actually doing the activity as if we were the students so in-person is definitely beneficial in that respect!
59. I did this years ago and I still remember your website and the resources I have used. It was effective.
60. I loved attending this workshop. It felt very beneficial and relevant to what I hope to teach in the future
61. The speakers are all knowledgeable and do have a excellent communication skills.
62. In person- presenter was clear and answered so many questions
63. it was very fun and loved all of the resources provided
64. To be a webinar I thought it was really good. I would have preferred to do it in person but grateful I was able to participate.
65. I absolutely loved it and really want to attend another one in the near future
66. none
67. The workshop hooked me! I've looked through my envelope of materials and just don't see any handout or card that provides access to curriculum materials.
68. It would be great to have resources that could be something we could use as a nature center exhibit. Like something to set up or for kids to do at a station.
69. Excellent leader, curriculum, and resources
70. None
71. Teacher for the session was fantastic!
72. I loved it! I left thinking that I would have access to online resources, but have not.
73. I was very impressed with the workshop that I attended and hope to implement more of these lessons into my teaching practice.
74. I do not remember any of this.
75. interesting content
76. The sessions are helpful because it's helpful to hear about practical yet creative ways to bring geography and science together to build better connections for students.
77. in person wkshp at the NJ sci convention was good and resources were appreciated
78. I had one student who was secondary social studies. He and I asked for materials for this age group, but we never received this.

79. the interactive nature of the presentation is something that I remember from 2 years ago, so it made an impression
80. Everything was good.
81. It was a great way to learn about new resources and get more information
82. Great way to discuss how lessons can be used in a classroom setting
83. I remember asking about the racist roots of much of the overpopulation rhetoric in the webinar, and I remember getting a non-answer type of answer. If the curriculum doesn't face the topic head on and instead avoids the issue - ie, if you haven't made sure you've rooted out the racism and ecofascism and are upfront about how you've rooted them out - then I don't feel comfortable using the material. Indeed, I've learned more about this history in the past year, so now I feel this even more strongly.
84. It was very effective as I still apply the concept of one apple to be shared among the world's population and the starvation scenarios
85. Truly Hands-on, practical, and easy to adapt to the classroom.
86. Excellent content, research, Rigorously uses critical thinking
87. Presentation was well-paced and I enjoyed the interactive activities (getting to try the lessons out with other educators).
88. liked that it was demonstrated and thorough
89. none
90. N/A
91. I did not attend, some one from Pop Ed. came to an AP Human Geography Conference and Spoke.
92. N/A
93. N/A
94. It was very well done, and I appreciated the excellent interactivity.
95. I wish I could have attended in person instead of online.
96. See previous comment on why I will not be using these materials.
97. It was great!
98. I appreciated having access to a recording and written materials after the workshop, as my rural Ontario internet connection made it challenging for me to interact with other participants and I lost connection part way through the workshop.
99. none well done
100. The workshop was interesting and fun, full of information but not a tedious slog through data, etc.
101. Our conference presentation was great! I emailed the presenter a couple times to request access to the materials she said she would share, but never received a reply.
102. I have not participated.
103. The presenter was terrible. She spent the first few minutes making comments about why she left teaching and why it's no longer a respectable profession (to a classroom of education students).

APPENDIX D

ADDITIONAL COMMENTS ON POPED MATERIALS (IN-PERSON AND ONLINE WORKSHOP ATTENDEES)

Note: All comments have been transcribed exactly as they appeared on the survey.

1. Na
2. I liked the stuff shown during the presentation and will use it once I have my own classroom.
3. I never had any time during the school year to look up your resources. I hope to do that in the summer.
4. So far so good even though we're physically distance but academically engage.
5. I would love access to these but I forgot if I received access and, if I did, how to access.
6. Love the usefulness for across curriculum
7. good
8. Trying to integrate them!
9. The lessons I looked at were creative and engaging.
10. na
11. You should, in my opinion, share (and pronouncedly advocate) our WECSKAOP OCW ppts and pdfs (What EVERY student, citizen, educator, and policymaker, etc. Citizen Should KNOW about our Planet and its Biospheric Life-support machinery.
12. Thank you for this opportunity.
13. I really enjoy the power of the pyramids activity. Students do too!
14. N/A
15. Keep them based on inquiry based learning.
16. I appreciate them.
17. I think the materials provided at the workshop were helpful to look at and examine. I will definitely be using these materials in my future classroom.
18. It would be great if the teaching material would be sent to my school.
19. Would be great if teaching materials were delivered to my school.
20. I thought the lessons were engaging and well organized for teaching.
21. I love how hands-on all the activities are as well as having access to supplemental materials.
22. None
23. I look forward to using these materials in my future classroom because of how engaging they are.
24. I used them to complement our EcoSchools initiatives
25. The materials are thorough and interactive.
26. Love the dot video.
27. excellent material for science
28. Thank you
29. None at this time.
30. Easy to follow. Well planned.
31. I will download the materials when possible
32. I have used in my ecology unit as well to introduce graphing.
33. I am so grateful for these high quality, ready-to use resources
34. N/A
35. I love them so much I'm attending Pop Ed leadership training this summer! I hope to lead workshops in my district through my role as a district lead teacher.
36. I had a bit of difficulty accessing materials after the workshop I attended. I would love to increase my use of these teaching materials in my classroom.
37. I am excited about the materials and really want to use them, I'm just not sure how to fit it into my curriculum.
38. Provide some materials free to teachers if they teach at low-income schools, i.e., title 1 schools
39. The information is very useful and simple to use - I can easily incorporate it into my future teaching.
40. Very fun while being educational! Loved how hands-on it was.
41. I have not used yet
42. The materials seem very good. I just haven't had a chance to explore all that is in there. I work with teachers grade 6-12 and try to find good activities for their various units. I hope to align some of your lessons to their

- standards.
43. I wish you sold physical books of your resources since I learn better when I have the resource physically in my hands.
 44. Presenter didn't hold my interest and materials were very hard to follow and unorganized. Very disappointed.
 45. I love how user friendly the materials are for both teacher and student
 46. I work with an Adult Education population, so some adaptation of materials is needed.
 47. The book is so easy to use and understand!
 48. lrl
 49. I teach Plant Biotechnology and Population education teaching materials are essential for Students to understand the importance of providing more Food for the ever-growing world population.
 50. The materials are helpful and easy to use. It does not require additional work, which makes things so much better.
 51. Very useful to student because we use to learn and practice.
 52. LOVE THEM SO MUCH!!!!
 53. I think the teaching materials are easy to understand and provide activities that will be easy to implement that will teach students important concepts. I look forward to using them in my own class in the future.
 54. Important subject - you should consider also using OCW curriculum materials I have written
 55. NA
 56. Your online resources are fantastic. Incredibly teacher-friendly and ready-to-go. Thank you!
 57. I've been impressed with them, excited to use them in population genetics. The unit starts next week
 58. I thought it was really well written, engaging, and practical.
 59. Teaching materials display extensive knowledge of the important concepts in the discipline (social studies and global studies) and the ways they relate both to one another and to other disciplines. The lesson plans and practice reflect understanding of prerequisite relationships among topics and concepts and provide a link to necessary cognitive structures needed by students to ensure understanding. The curriculum reflects familiarity with a wide range of effective pedagogical approaches in the discipline, with attention to prospective student misconceptions.
 60. Na
 61. really appreciate and value the lesson plans even though I only use some periodically for an after school program
 62. Will be very useful when I eventually have my own classroom
 63. I really enjoy the wide range of resources that are provided on the site. Plus there always seems to be other items that I discover - on site tutorials for instance.
 64. They were useful and they usually add good visuals and hands on materials.
 65. Very useful
 66. Easy to follow
 67. Good variety of activities
 68. A very hands on way of providing information to students for better understanding some very sensitive issues.
 69. I appreciate the experiential nature of the activities.
 70. I thought the ideas and classroom applications were interesting. I have to figure out how to adapt them to asynchronous online work.
 71. Thank you for such good up to date applications. So many texts and supplements are conceptual, but I need to see that students can actually manipulate and create predictive answers.
 72. I thought these materials were extremely unique and engaging!
 73. It was all comprehensively crafted and easy to understand.
 74. Informative and easy to use
 75. I remember this training even though I haven't used the materials yet (I ended up teaching a different class). It looked interesting and engaging.
 76. I wish there were more for non online lessons
 77. I would like to receive infographics or posters for my classroom about this topic.
 78. I would love to have temporary access to one of the curriculum units so I could see how it might meet our district's gifted standards and resource classroom needs.
 79. I forget the workshop. Was is coding?
 80. This was a great session at the conference and I would like to use the information or get trained, but it's just a matter of finding time to fit it in.
 81. Excellent resources
 82. Thank you for the opportunity to use the
 83. None at this time.
 84. The hard copy lesson that I received on Three Cities is engaging and relevant. I would

85. Nothing as of right now, I have LOVED what I have seen so far.
86. I do not remember this at all.
87. It'd be nice to have the materials packaged into units already or have connections to common biology, environmental science, geography, etc. units.
88. easy to use
89. The interactive and engaging approach makes it attractive for primary students to build understanding and connection to NC standards.
90. seem like good ideas, I just have to figure out how to add them into my year
91. I would like to receive materials and newsletter dctreff@uga.edu
92. Fantastic resource! Will continue to use.
93. It's great to have these resources available.
94. These will be very useful in my career and I plan to use them a lot
95. Great, simple and easy to use
96. They are very engaging and stimulate discussion about population trends and anomalies.
97. I'll start applying learning and information whenever I receive curriculum from you.
98. Up to date. Well curated and accessible
99. I would like to see more lesson plans for Grade 3-5.
100. As a seasoned teacher of 20+ years, it is still useful to view teaching materials created by others to supplement and enhance your own...thank you :-)
101. Great lesson ideas, and I always appreciate that the research is done and done well (I trust the information).
102. The teaching materials are great both for in person and virtual!
103. none
104. I did not receive the curriculum so I had limited resources to deal with with my students
105. I really would like to integrate your lesson plans. These are very important.
106. Simplify instructions
107. Try to provide mini-lessons (Lessons or activities that can be completed in 20-30 minutes)
108. It's a great resource----I need to think about how to integrate your materials into my subject matter.
109. Population Education's materials are all wonderful.
110. I would be interested in the newsletter and web sites for classroom use.
111. Sometimes it is hard to implement your lessons because it does not quite fit to my 7th or 8th grade Social Studies curriculum.
112. I remember thinking that these lessons were amazing when I first heard of them and was excited to figure out how to incorporate them into my work.
113. N/A
114. They are fantastic!
115. See previous comment on why I will not be using these materials.
116. All are easily accessible and useable
117. can be easily transferred into the google suite
118. Great materials that can be very useful as supplementary materials for my lessons
119. Pop Ed's teaching materials are well-thought out and clearly explained, making them easy to integrate into classwork, either as a stand-alone lesson or as a complete unit of work.
120. none they are well organized
121. I have the links, etc., on my other computer, but I remember being impressed with how well thought out they were and self-contained.
122. I have not received any.
123. I think the context could be useful, but also worry about the tone that is used when discussing topics like human population. I feel someone could have easily left that presentation thinking that eugenics or single child policies or all sorts of other terrible things could be a solution. The presentation simply presented people as a problem and didn't really address any actual solution, rather grim.

APPENDIX E

OBSTACLES CITED BY SURVEY RESPONDENTS

Note: Respondents' resolutions are included in parentheses as applicable. All comments have been transcribed exactly as they appeared on the survey.

1. I don't remember. (I don't remember)
2. Sometimes not geared for where I live in Canada. (Skipped those parts.)
3. Access to documents/site (I didn't)
4. Retrieving material from the website. (It isn't resolved. Trying to remember where to find the activation code and the login and password was a bit cumbersome.)
5. Student understanding (Gave more time for the assignment. Perhaps need to get them to engage in discussion with their peers.)
6. I used to have a card with a code that I was given at a conference. However, during a classroom move, which was permanent my access card was lost. Now I don't have the same access I used to. (I have just tried using free resources. However, sometimes it is difficult remembering how to navigate the cite to go back and find them.)
7. As I said earlier, I have been using Earth Matter less. The articles are dated and the links to migration stories do not work. I had to find my own links to the migration stories assignment and find articles on Maps101
8. I did not actually have access. I emailed, but did not get a response.
9. Students found the hands on blocks activities distracting after a while. Students equated carbon emissions only as a symptom of a developed economy, rather than viewing them also as a harmful byproduct of an industrialized economy. Students were given greater direction of what to do with their blocks. I created a slideshow outlining the connections between carbon emissions and industrialization but also it's negative effects.
10. Navigation through the materials was difficult. I would find a resource and then couldn't get back to the original pages. (Login many different times.)
11. Justification of what the overall message of the course is telling students. (Clarification that this is a simulation and not all variables are accounted for.)

APPENDIX F

PRE-SERVICE INSTRUCTOR COMMENTS

Listed below are the comments from education instructors who hosted Population Education workshops in their classes. Answers are numbered, corresponding to the questions below. Some professors did not post their answers in this format and their responses are simply printed as written.

Note: All comments have been transcribed exactly as they appeared on the survey.

Email Questionnaire: In-Person

1. Describe the trainer's ability to model appropriate educational methods and engage participants.
2. On a scale of 1 to 5, how would you rate the quality of the trainer's facilitation?
3. Which lessons from the workshop did you think were especially useful? Please explain.
4. Were there any lessons from the workshop that you didn't think were useful and/or appropriate for your group? Please explain.
5. How well did the workshop mesh with your course syllabus?
6. Overall, how well did the activities fit established content standards?
7. To your knowledge, did your students find the session valuable for their future roles as teachers? Please comment on what was most valuable and/or where you see room for improvement.
8. Do you have any additional comments, compliments, or suggestions?

Responses

Abi-El-Mona, Issam – Rowan University, Glassboro, NJ

1. More than satisfactory
2. 4
3. N/A Lessons weren't presented due the nature of the time frame requested; just ideas and implementation of the ideas of what can be done in classrooms and references shared. More importantly were the data but more info how to integrate that data into the classroom with other subject areas would be helpful.
4. Not really even though the subject area emphasized Environmental science, the facilitator did the best she could to demonstrate how that can connect with other subject areas emphasizing STEM practices.
5. 2-Adequately
6. As novice teachers what was most helpful were the resources and ideas so on that sense yes
7. No but thank you for offering these opportunities. I believe the more exposed pre service teachers are to thinking outside the box and about the real world, the more helpful it is for their professional development.
8. -

Billington, Barbara – University of Minnesota, Minneapolis, MN

1. Lindsey did a great job... the teacher candidates were very engaged and the strategies she modeled mirrored what we've been teaching in the methods class... so I reinforced this with the class as well.
2. 5-Exemplary
3. I always love video of the population growth... this year, we all calculated which # person we were when we were born. That was new for me. I also think that the predator/prey activity where we catch different prey around the room works well for our future Middle School science teachers.
4. No. All are great.
5. 4-Very well
6. 4-Very well
7. Yes and No. I have a few chem and physics people who struggle to see how it fits... but I continue to provide them with reasons to consider it... the biology and life science folks are totally on board!
8. Thank you once again for providing our future science teachers here in MN with such valuable curriculum and experiences. I really appreciate it!

Boning, Ken – Jefferson College, Hillsboro, MO

1. She was very personable and related to the students well.
2. 5-Exemplary
3. The ones where the students were actively involved.
4. No
5. 4-Very well
6. 4-Very well
7. Several students told me that they enjoyed the session and thought it was beneficial for them.
8. Providing resources was beneficial as well.

Carr, Kevin – Harding University, Searcy, AR

1. Excellent
2. 4
3. -
4. -
5. 4-Very well
6. 4-Very well
7. Yes
8. -

Chalmers, Garth – University of Toronto, Toronto, ON

1. Excellent.
2. 5-Exemplary
3. I think the sharing of the population growth video (exponential growth) and follow up discussion was most useful.
4. Our time was a little tight so we really only reviewed one of the other lessons.
5. 4-Very well
6. 4-Very well
7. The feedback was quite positive.
8. It was great that Paul is a practicing Geography teacher who could share not only the resources but the wealth of his experience in the classroom.

Cheng, Diana – Towson University, Towson, MD

1. Katie Grams was great! I have sent her my students' feedback.
2. 5-Exemplary
3. Panther Hunt
4. N/A
5. 4-Very well
6. 4-Very well
7. Yes, they did see the session as valuable. The interactive activities were the most valuable.
8. -

Cheng, Diana – Towson University, Towson, MD

1. Lindsay is very enthusiastic and engaging. Her voice and her energy level are contagious.
2. 5-Exemplary
3. I think my students enjoyed the Panther Hunt the most, although they also enjoyed seeing the fraction apple activity.
4. No
5. 4-Very well
6. 4-Very well
7. Yes. I think the cross-curricular aspects of the lessons were the most valuable.
8. N/A Thank you so much.

Cook, Daniella – University of South Carolina, Columbia, SC

1. Engaged class; hands on and content rich
2. 5-Exemplary

3. Gerrymandering!
4. No
5. 4-Very well
6. 4-Very well
7. Yes. I will have better gauge during the spring full time student teaching IF students were able to incorporate into their teaching practice.
8. -

Dyer, Rochelle – St. Cloud State University, St. Cloud, MN

1. Hands-on, engaging approach
2. 5-Exemplary
3. All shared were well received by our future teachers and useful for their future classrooms
4. No
5. 4-Very well
6. 4-Very well
7. Yes! Students love the resources and materials shared.
8. Lindsey did a great job! She explained things clearly, modeled expectations, used engaging activities in her demonstrations, and shared many resources. Truly a great use of time for my students! Thank you for all the work you do!

Ellis, Jaime – Ivy Tech Community College, Muncie, IN

1. Ms. Baker was engaging and kind. The students participated in meaningful discourse and enjoyed the activities that Ms. Baker led.
2. 5-Exemplary
3. The students particularly enjoyed the Who Polluted the Lake activity as well as the video at the beginning of the training regarding world population over time.
4. All of the lessons were useful and appropriate.
5. 4-Very well
6. 4-Very well
7. Yes, they are eager to try out some of the lessons and they are particularly interested in engaging their students in geographical issues.
8. I took the Population Connection workshop as an undergrad (15-20 years ago) and it was a powerful program that helped guide my instruction. I was excited to see it is still going and enjoyed participating in the program as an instructor. I hope to use the program with each semester that I teach the EDUC224 course.

Fortner, Shelbi – Indiana University Kokomo, Kokomo, IN

1. Jodi was exceptionally skilled at engaging participants and tailoring the experience to meet their unique and specific needs.
2. 5-Exemplary
3. The opportunity to participate in the lessons, share ideas of how to incorporate cross-curricular content, and the inclusion of practical recommendations for adjusting the lessons to various developmental levels was extremely helpful.
4. No. All of the lessons that Jodi shared were excellent and appropriate.
5. 4-Very well
6. 4-Very well
7. Yes. Participants found the session and the vast resources very helpful. Jodi's classroom experience and authentic, specific, and practical recommendations were especially valuable.
8. We are very grateful to have had this experience with this trainer.

Franks, Dana – Wright State University, Dayton, OH

1. it was great
1. 5-Exemplary
2. -
3. -
4. 4-Very well
5. 4-Very well

6. -
7. -
8. -

Hitt, Austin – Coastal Carolina University, Conway, SC

1. The trainer is excellent. She readily adapted the lesson to the constraints of the classroom. The lessons were very engaging for the students.
2. 5-Exemplary
3. The Apple activity and Panther Hunt were very engaging and useful for the teachers.
4. None. All were appropriate.
5. 4-Very well
6. 4-Very well
7. The students were enthusiastic about all of the lessons and were very pleased with access to the curriculum. The fact that the lessons were 5E.
8. The workshop was excellent over all.

Jose, Sherwin – Florida International University, Miami, FL

1. Very well done.
2. 5-Exemplary
3. The panther hunt activity was very memorable and serves to present the concept of carrying capacity and predator/prey supply within nature very well even to younger students. It is a game that is easily understandable and creates opportunities for conversations about how animals can be impacted in the wild; especially since it can be easily modified to fit various situations as well, which is always a plus.
4. The one using the apple to represent the earth was the least useful. A lot of my students didn't feel that it was engaging enough.
5. 4-Very well
6. 4-Very well
7. Some did and felt that they would use some of these strategies with their own students.
8. -

Ketner, Scott – Ohio State University Lima, Lima, OH

1. Fantastic
2. 5-Exemplary
3. All were great.
4. 4-Very well
5. 4-Very well
6. Students enjoyed workshop.
7. Excellent program.

Ketner, Scott – Ohio State University Lima, Lima, OH

1. Did a wonderful job.
2. 5-Exemplary
3. The mixing bowl made it real.
4. No. All of the lessons were good.
5. 4-Very well
6. 4-Very well
7. My students really enjoyed the workshop.
8. Thanks to Deb for presenting a fantastic workshop.

Lotter, Christine – University of South Carolina, Columbia, SC

1. She did a great job relating the content specifically to science and targeting activities that meet the needs of my future science teachers
2. 5-Exemplary
3. I liked the lessons that utilized graph reading and analysis as well as activities aligned to our specific science standards--all were on target
4. None

5. 4-Very well
6. 4-Very well
7. Yes, student received a lot of resources to use in her future classroom
8. -

Lucas, Ashley – Towson University, Towson, MD

1. -
2. 5-Exemplary
3. Panther
4. -
5. 4-Very well
6. 4-Very well
7. My students always appreciate the workshop.
8. The activities were all great. Since my students are social studies, I think activities, such as Who Polluted the Potomac and the Yard & Countries are more impactful then the graphing ages for various countries.

Lucas, Ashley – Towson University, Towson, MD

1. Wonderful! It was a great session.
2. 5-Exemplary
3. Who polluted the Potomac.
4. -
5. 4-Very well
6. 4-Very well
7. They really found it valuable.
8. Keep up the fantastic work and thank you for offering these workshops.

Martin, Lisa – California State University Long Beach, Long Beach, CA

1. The trainer was very engaging and well prepared.
2. 5-Exemplary
3. Panther activity. Seed activity. Population video
4. No
5. 4-Very well
6. 4-Very well
7. Yes.
8. No

Morsberger, Emily – Towson University, Towson, MD

1. Very well done!
2. 5-Exemplary
3. All. My students really enjoyed the supply vs. demand “Panther” Prey activity.
4. No
5. 4-Very well
6. 4-Very well
7. Absolutely. A great example of making math learning meaningful and engaging!
8. -

Mueller, Lyn – University of South Carolina, Columbia, SC

1. -
2. 4
3. -
4. I know it's difficult to teach 1st graders. I felt that the Wants and Needs that I've seen before would have been better than the pollution of the water.
5. 4-Very well
6. 3-Good
7. -
8. -

Patterson, Nancy – Bowling Green State University, Bowling Green, OH

1. She was right on! Her teaching experience came through, and she handled the social studies content very well, considering she was a science teacher.
2. 5-Exemplary
3. All were useful. Students responded best to her carrying capacity/resource scarcity activity with vigor and interest.
4. Barbara and I worked together on these choices before she came, and everything she chose was appropriate.
5. 4-Very well
6. 4-Very well
7. They did. There was one point with one of the population periods when she could not explain the historic impacts, but the students helped her out. T
8. Thanks so much for all you do. I'd love to become a trainer. How does that work?

Rajdev, Usha – Marymount University, Arlington, VA

1. Excellent hands-on approach and meeting standards for learning
2. 5-Exemplary
3. All of them were valid for preservice teachers.
4. all were useful
5. 4-Very well
6. 4-Very well
7. Extremely valuable especially the resources.
8. None

Ralston, Nicole – University of Portland, Portland, OR

1. so great! We loved having Jen come and it was so informative!
2. 5-Exemplary
3. The mining one with cookies is always a fun one.
4. Blnk
5. 4-Very well
6. 4-Very well
7. Yes! They loved it!
8. 8. -

Ralston, Nicole – University of Portland, Portland, OR

1. Excellent!
2. 5-Exemplary
3. All - fish bowl, fish sampling
4. No
5. 4-Very well
6. 4-Very well
7. Yes - they liked it a lot
8. Thank you!

Rogers, Rachelle – Baylor University, Waco, TX

1. Trainer used engaging, hands-on instructional strategies as well as posing questions that engaged students in conversation.
2. 5-Exemplary
3. Population circle, birth/death rate, water activity.
4. No
5. 4-Very well
6. 4-Very well
7. Yes, my students found the materials to be of great interest and thought their future students would find it very engaging and relevant.
8. Excellent experience!

Stoltz, Angela – University of Maryland, College Park, MD

1. Excellent. Very engaging and hands on activities.
2. 5-Exemplary
3. All of them were relevant to the participants.
4. No.
5. 4-Very well
6. 4-Very well
7. Yes. I always receive positive feedback on Pop Ed.
8. No.

Trout, Muffet – The University of St. Thomas, Minneapolis, MN

1. She was great! It was clear she's been in elementary classrooms before. The lessons she demonstrated were age appropriate, involved active learning, and my students are still referring to them in my class.
2. 5-Exemplary
3. Every one that she did - I asked her to focus on ecological principles and they all did this quite well.
4. No
5. 4-Very well
6. 4-Very well
7. Absolutely! My students have needed to find lessons for other assignments in my class, and many of them have used lessons from the Population Education website.
8. I am so thankful for Erika Bailey's visit to my classroom and I hope she is able to come next Fall, '23.

Vance, Lindsay – Tiffin University, Tiffin, OH

1. Barb modeled how to facilitate engaging activities and also explained why she was utilizing the strategies. She briefly mentioned how she would modify with various age levels.
2. 4
3. I think the hunting activity was great, as well as the pollution story. I like the content integration.
4. no, they were all useful and appropriate
5. 3-Good
6. 3-Good
7. Yes, they commented that they really enjoyed it. They express that they want to make lessons "fun" but they don't always know where to start or feel like it is really possible at that grade level. My students want to be MS/HS teachers so when they go into the field, they do not typically see these types of lessons.
8. I think a key benefit of your curriculum is the content integration opportunities. I appreciate the access to resources!

Ward, Marilyn – Carthage College, Kenosha, WI

1. Patty is brilliant.
2. 5-Exemplary
3. Mining for Chocolate Panther activity
4. no
5. 4-Very well
6. 4-Very well
7. Very valuable
8. They like the resources.

Ward, Marilyn – Carthage College, Kenosha, WI

1. very appropriate for future teachers
2. 5-Exemplary
3. Mining for chocolate
4. no
5. 4-Very well
6. 4-Very well
7. They loved it and learned a lot
8. Patty is terrific

Ward, Marilyn – Carthage College, Kenosha, WI

1. excellent
2. 5-Exemplary
3. mining for chocolate
4. all good
5. 4-Very well
6. 4-Very well
7. Absolutely
8. Patty is great

Winner, Nicole – Towson University, Towson, MD

1. Lindsay did an excellent job of modeling good teaching practices and explaining how the activities worked/related to mathematics.
2. 5-Exemplary
3. For the Early Childhood majors, I think the Crowding Can Be Seedy activity was very beneficial in making cross-curricular connections. I also love Panther Hunt and how it can be adapted for any age group, allows movement, and connects to both science and mathematics.
4. n/a
5. 4-Very well
6. 4-Very well
7. Yes!
8. Looking forward to scheduling workshops for the spring 2022 semester. Thanks for all you do!

Email Questionnaire: Online – Live Webinar

1. Describe the facilitator's ability to model appropriate educational methods and engage participants.
2. On a scale of 1 to 5, how would you rate the quality of the facilitation?
3. Which lessons from the webinar did you think were especially useful? Please explain.
4. Were there any lessons from the webinar that you didn't think were useful and/or appropriate for your group? Please explain.
5. How well did the webinar mesh with your course syllabus?
6. Overall, how well did the activities we shared fit established content standards?
7. To your knowledge, did your students find the session valuable for their future roles as teachers? Please comment on what was most valuable and/or where you see room for improvement.
8. Do you have any additional comments, compliments, or suggestions?

ResponsesAlexandre, Suzanne – Virginia Commonwealth University, Richmond, VA

1. Both presenters were engaging.
2. 4
3. The apple/earth model activity and the population growth model were both great.
4. no
5. 3-Good
6. 4-Very well
7. yes, I believe so
8. I don't have any suggestions

Baker, Rebekah – Anderson University, Anderson, IN

1. Conducting professional development in a virtual setting is challenging. I thought Raf did a great job of prepping me beforehand (materials, setup, agenda, etc.). The experience went well with my students being able to engage in activities while Raf facilitated.
2. 5-Exemplary
3. My students loved the "River" lesson! Many talked about using this one in their own classrooms. The mining activity was also a hit; who doesn't love to eat cookies in science.
4. No. I thought all activities were appropriate and filled the time well.

5. 4-Very well
6. 4-Very well
7. From the feedback I requested from students, they enjoyed the session. They really appreciated having access to the curriculum!
8. I am anxious to set up another session for next fall. I'd love to be in person, if at all possible. If in person does not work out, I would be happy to work with Raf. If I complete the application process to facilitate, I'd be happy to do the session, as well. Thank you!!

Banta, Ashley - University of Iowa, Iowa City, IA

1. The BTLC has hosted Population Education for several years. Every time the facilitator provides appropriate educational methods for our pre-service teachers and engaging activities.
2. 5-Exemplary
3. I think our pre-service teachers appreciate that lessons are modeled for them and they interact with the sample lessons. Also, they appreciate the resources that the presenters share.
4. Not applicable
5. 4-Very well
6. 4-Very well
7. Yes, they found it valuable. Our future teachers like adding tools to their teacher toolkit, so the Population Education curriculum is helpful.
8. We look forward to hosting Pop Ed again in the future. Abby Watkins has been coming for years, and she is wonderful!

Banta, Ashley - University of Iowa, Iowa City, IA

1. Abby was wonderful! She has presented workshops to our center in the past. I am always impressed with her interactive activities. She also encourages our students to participate in ways they feel comfortable, such as using the chat feature.
2. 5-Exemplary
3. Our students are future teachers, so they really appreciate adding lesson plans and activities to their toolkit. Population Education workshops introduce our teacher candidates to interactive activities for their future classroom as well as introduce them to a helpful resource for additional lesson plans.
4. NA
5. 4-Very well
6. 4-Very well
7. Yes, our students found the session valuable for their future roles as teachers. The Population Ed. workshops tend to be our most popular workshops.
8. No, we look forward to hosting Pop. Ed. in the future!

Berson, Michael - University of South Florida, Tampa, FL

1. Outstanding engagement with the class! Great questions and discussion.
2. 5-Exemplary
3. We really liked the town growth activity!
4. None
5. 4-Very well
6. 4-Very well
7. Some of the students plan to use the activities in their internship this semester.
8. Wonderful workshop!

Berson, Michael - University of South Florida, Tampa, FL

1. Outstanding and engaging.
2. 5-Exemplary
3. River simulation
4. -
5. 4-Very well
6. 4-Very well
7. They loved the lesson and the CD.
8. You all do wonderful work!!!!

Berson, Michael – University of South Florida, Tampa, FL

1. They did an excellent job engaging the students in the activities and discussions.
2. 5-Exemplary
3. All the lessons were wonderful. I have no changes.
4. None
5. 4-Very well
6. 4-Very well
7. The students felt that they could use the lessons in their classes.
8. Wonderful!

Berson, Michael – University of South Florida, Tampa, FL

1. Carol Bliese and Rafael Woldeab did an excellent job engaging the students in a thoughtful presentation.
2. 5-Exemplary
3. I will be honest very single lesson selected was excellent for our group. I really liked the dirty water demo.
4. None
5. 4-Very well
6. 4-Very well
7. The students loved the presentation. Some students took the lessons from the online CD site and implemented them.
8. Wonderful presentation!

Berson, Ilene – University of South Florida, Tampa, FL

1. Excellent facilitation of sample lessons and engagement of the students
2. 5-Exemplary
3. More or Less
4. Needs vs Wants--The conversation addressed some the contentious and diverse issues of dichotomizing needs vs wants but the lesson could promote misconceptions and reinforce outdated concepts.
5. 4-Very well
6. 4-Very well
7. The students continued to discuss the webinar during subsequent class sessions and some integrated ideas into their classroom implementation.
8. 8. -

Berson, Ilene – University of South Florida, Tampa, FL

1. Both facilitators were well prepared and engaging.
2. 5-Exemplary
3. Our students have continued to talk about the More or Less activity and have created adapted versions for their own instruction.
4. No
5. 4-Very well
6. 4-Very well
7. The only suggestion would be to include a few activities that align with PreK standards as well as early primary.
8. -

Billington, Barbara – University of Minnesota, Minneapolis, MN

1. Very well. Rafael W was very adept at leading the PD utilizing the online platforms and providing us with sound educational strategies for learning.
2. 5-Exemplary
3. I really liked how Rafael used Google slides to lead the game where we were figuring out how to “share resources”.
4. NO
5. 3-Good
6. 2-Adequately
7. I continue to encourage our teachers to realize that they need to work across content areas, and not just stick to their sciences, if they want to engage more students, they need to be able to play to other strengths. Population is

- a great tool for the life sciences of course, but ties in other content areas as well.
8. Thanks again!

Brill-Lee, Rachel – Marymount University, Arlington, VA

1. We conducted our meeting virtually and it was wonderful. The speaker was able to engage all participants and provide valuable resources that we can use in our classrooms.
2. 5-Exemplary
3. The population map and the interactive Google slides.
4. They were all great!
5. 4-Very well
6. 4-Very well
7. Yes, they all stated that they enjoyed the class and discussed how they would use the different resources.
8. Everything was great and we look forward to meeting again in the future.

Brown, Sherri – University of Louisville, Louisville, KY

1. Within the online format Pete was able to show lessons he previously had shown in face-to-face/in-person formats.
2. 5-Exemplary
3. All - seeds and space, size of Earth's population (video), slice of apple for land use, etc.
4. no
5. 4-Very well
6. 4-Very well
7. Yes, they reported they enjoyed the synchronous lesson as well as the resources.
8. None at this time

Buchholz, Alison – Plymouth State University, Plymouth, NH

1. She did a great job modeling, there were no issues.
2. 4
3. The apple being cut into pieces to show usable land.
4. no
5. 4-Very well
6. 4-Very well
7. I think they did find it valuable.
8. -

Cheng, Qiang – University of Mississippi DeSoto, Southaven, MS

1. Ms. Linsey Bailey did a wonderful job modeling the lessons via Zoom platform to my group of students.
2. 5-Exemplary
3. While all lessons were useful, I do think the Go Fish lesson would stand out as it is more relatable to the lower grade level kids, educating them the important idea of equality and sharing.
4. I don't think so.
5. 4-Very well
6. 4-Very well
7. Yes, absolutely. Each of the lessons was carefully crafted and presented so I don't think there's any negativity involved.
8. None.

Christopher, Chad – University of Northern Iowa, Cedar Falls, IA

1. Very good.
2. 4
3. Activities and Information
4. Having students share what they found out.
5. 3-Good
6. 3-Good
7. Yes, the resources were helpful.
8. -

Clayton, Jim – Saint Peter’s University, Randolph, NJ

1. Appropriately knowledgeable and enthusiastic.
2. 4
3. The world population map is most dramatic.
4. All were good.
5. 4-Very well
6. 4-Very well
7. I know that the activities would have been more enjoyable in person rather than online.
8. I appreciate the fine job that Katie and Lindsey did for us.

Cohen, Steve – Tufts University, Medford, MA

1. Very fine job. Always, of course, harder on zoom, but Abby did a fine job.
2. 4
3. Abby used the opening film particularly effectively
4. All the activities had worthwhile aspects.
5. 4-Very well
6. 4-Very well
7. Indeed.
8. -

Cohen, Steve – Tufts University, Medford, MA

1. 1. Raf and Pete work well together, and they have mastered the technology. It wasn’t like being in person, but it was quite fine.
2. 4
3. The lesson on demography
4. -
5. 4-Very well
6. 4-Very well
7. -
8. -

Coleman, Bridget – University of South Carolina Aiken, Aiken, SC

1. Very effective, professional presentation actively engaging our entire group
2. 5-Exemplary
3. Panther Hunt
4. No
5. 4-Very well
6. 4-Very well
7. The students found the session very beneficial as it reinforced our work with cross-curricular lessons and incorporated several virtual techniques.
8. Thank you!

Collins, Brenda – Arizona State University West, Gilbert, AZ

1. -
2. 5-Exemplary
3. -
4. -
5. 4-Very well
6. 4-Very well
7. Overall, useful and engaging.
8. The resources are greatly appreciated.

Cook, Danielle – University of South Carolina, Columbia, SC

1. Model the types of engagement we teach in our methods courses. Reinforced student centered instruction.
2. 5-Exemplary
3. 3. Each lesson introduced was relevant and useful! Gerrymandering was especially timely.

4. n/a
5. 4-Very well
6. 4-Very well
7. -
8. I don't regret yielding precious class time to Population Education. My students are able to have access to wealth of effective strategies they can use immediately (and they do!).

Cook, Kristin – Bellarmine University, Louisville, KY

1. Wonderful! Both Laura and Abby were excellent educators and navigated the virtual platform with ease. All resources were high quality and immediately useful for our pre-service teachers.
2. 5-Exemplary
3. The hands-on elements of the PD were the most useful and generated the most classroom discussion/engagement.
4. I will say one of the activities (An Unfair Race) could be done (rather than just discussed) with a bit of logistical pre-planning on the classroom teachers' part, which would have been great.
5. 4-Very well
6. 4-Very well
7. Yes, now that I know this PD is great for a health-focused perspective (which was the topic of this class), I will ask students to try out some of the lessons in class and/or field settings.
8. Your organization is always easy to work with and offers high quality materials to teachers for free- much appreciated!

Cook, Karen – Eastern Connecticut State University, Willimantic, CT

1. Rafael modeled best practices throughout the presentation.
2. 5-Exemplary
3. Less/More activity was grounded in social studies content and allowed for active participation.
4. The Panther activity was more grounded in science, it was interesting and engaging, but less aligned with our curriculum
5. 4-Very well
6. 4-Very well
7. Yes, they remarked that they were so pleased to gain practical strategies
8. Rafael is very engaging online. He is also such a pleasure with which to work- very professional, knowledgeable and accommodating.

Crawford, Elizabeth – University of North Carolina Wilmington, Wilmington, NC

1. Barbara Huth was a fabulous facilitator. She used an appropriate pace, gave clear explanations, answered questions, etc. Students were non-native English speakers and they understood her directions.
2. 5-Exemplary
3. Something for Everyone was particularly effective as each student could easily participate and the visual and post-discussion led to them understanding the big ideas of the lesson.
4. No, I thought they were all effective. Who Polluted the Potomac? is a bit harder to facilitate online though I could see the students' faces that they were impacted by it.
5. 4-Very well
6. 4-Very well
7. Absolutely, they all referenced POP in their post-course reflection.
8. I am grateful for the workshops provided, including webinars. Receiving the lesson plans is very much appreciated so students can analyze their design in addition to experiencing the activities as learners. Very helpful models for future teachers. Thank you!

Crockett, Michele – Eastern New Mexico University, Portales, NM

1. I believe that both facilitators mastered the technology to the degree allowable to present the information.
2. 5-Exemplary
3. Unfortunately, I am not recalling in great detail the lessons that were presented. I do recall one on overpopulation that seemed to make the most sense to my pre-service teachers.
4. My only comment would be to either lengthen the webinar or take out one of the lessons. It would be nice to talk through substantively pedagogy and learning of at least one of the lessons.

5. 3-Good
6. 3-Good

Crockett, Michele – Eastern New Mexico University, Portales, NM

1. I felt the facilitator did a good job modeling appropriate educational methods. However, I was the one lagging behind. I think a few reminders on how to access the electronic tools would have been helpful to me (and those who could easily follow their classmates, if they were stumped.)
2. 4
3. In my own personal view, the lesson that illustrated population growth was powerful. (I am not recalling the specifics, but in general graphic illustrations make a concept come to life.
4. I believe that all the lessons were appropriate. All the lessons could be modified to fit a particular lesson.
5. 3-Good
6. 3-Good
7. The students enjoyed the lessons. However, our teacher education program is structured such that the students take multiple methods courses at once while doing field experience. They are overwhelmed, which makes it difficult for them to process any new learning.
8. It would be great if the facilitators can point out accommodation and/or modification for students with learning needs or students who are English learners.

Crockett, Michele – Eastern New Mexico University, Portales, NM

1. The facilitators showed skill in the online format. The modeled aspects of a lesson including setting the stage, engaging instruction, and allowing for student interaction.
2. -
3. I am not recalling the specific lesson names (two months ago), but I do feel the lesson that utilized Google Earth (??), showing the population increase over time was powerful.
4. I believe all the lessons were appropriate for my students. We discussed how the lesson could be adapted by grade level.
5. 4-Very well
6. 4-Very well
7. Yes, they did find the workshop valuable. However, I did not probe for areas of improvement.
8. My only comment is that I wish there were a little more time, so that students can ask directly about how to modify the lessons, as well as other questions. I believe this promotes the likelihood they will use the lessons when they become teachers. Also, it would be a benefit to make explicit the NG Science Standard that the **lessons** address.

Cude, Michele – James Madison University, Harrisonburg, VA

1. This was a virtual presentation. The rating below does not really indicate that the presenter wasn't excellent but rather that the mode of presentation (virtual) just is not as powerful as the in person. **HOWEVER**, it is certainly a viable option. And I totally appreciate your willingness to be flexible.
2. 4
3. Their exposure to the timed website with the growth of population seemed to impress them the most. Personally, I think the interactive games are the best. Not being able to do the one with the countries spread out around the room was a loss... but again, just due to covid.
4. no. all were useful.
5. 4-Very well
6. 4-Very well
7. Honestly, I think I need to do a better job before and after. I think I need to incorporate the websites and parts of the lesson into future lessons of mine. I want to take time to weave it in more. And to have them do something with the material required. I did have a few integrate it into their next lesson plan which demonstrates they found it very engaging .
8. I am grateful for allowing me to interject with you as you were delivering the content. That helped to make it applicable to my students.

Desouza, Josephine – Ball State University, Muncie, IN

1. The facilitator was excellent and we enjoyed her presentation because he kept the audience informed and interactive.

2. 2. 5-Exemplary
3. 3. All the lessons had a benefit.
4. 4. None.
5. 5. 4-Very well
6. 6. 4-Very well
7. 7. The students enjoyed the workshop and found it very useful to their education.
8. 8. I have worked with Lindsey Bailey and others for a long time and I am going to miss them. Keep up the good work.

Desouza, Josephine – Ball State University, Muncie, IN

1. Excellent presentations. Uses interactive materials and keeps the audience actively engaged.
2. 5-Exemplary
3. All the demonstrations were very useful and conveyed the principles of conservation, habitat interactions and results of human action on the environment.
4. No. There were no lessons that were inappropriate.
5. 4-Very well
6. 4-Very well
7. My students were very interested in the modules presented and thoroughly enjoyed their participation.
8. I will continue to use the workshop when we get back to face-to-face learning.

Dyer, Rochelle – St. Cloud State University, St. Cloud, MN

1. Sending the materials first, and using Zoom to demonstrate activities while students engaged in the classroom went really well! While in-person demonstrations work best, this was a great alternative given the distance and travel issues due to the pandemic. I would encourage others to utilize this opportunity.
2. 5-Exemplary
3. Each of the lessons shared was outstanding and aligned with social studies standards. There was a good variety and mix of activities shared and the materials provided were around standards that many educators have trouble
4. No.
5. 4-Very well
6. 4-Very well
7. Yes! They were really excited by the interactive and engaging way students would be able to participate in these lessons. They were accessible for the age level planned for.
8. We always appreciate the wonderful opportunity to learn from Pop. Ed. and the outstanding lesson plans and materials that the organization provides. Thank you so much, Lindsey, for your time and expertise! :)

Earl, Chantee – Georgia State University, Atlanta, GA

1. Excellent and engaging. She described the lesson activities, the students participated in the activities. The facilitator modeled the lesson well and the students were able to see from both the instructor and student point of view how the lesson would work.
2. 5-Exemplary
3. All the lessons were use-equally
4. None-everything was engaging and useful!!
5. 4-Very well
6. 4-Very well
7. Yes, the students were very engaged and some even discussed how they were going to incorporate the activities into their upcoming lessons
8. Thank you for providing this information and resource for my students!

Earl, Chantee – Georgia State University, Atlanta, GA

1. Excellent-engaging, relevant to the teacher's content areas various examples of how to incorporate the resources, connected it to the GA standards
2. 5-Exemplary
3. All were useful and appropriate
4. All were useful and appropriate
5. 4-Very well
6. 4-Very well

7. Yes, some incorporated some of the resources in the lesson plans they submitted for the class
8. -

Edwards, Laura – University of Northern Iowa, Cedar Falls, IA

1. Barbara was amazing and very engaging.
2. 5-Exemplary
3. The mix of lessons was the key!
4. No
5. 3-Good
6. 3-Good
7. YES!
8. Keep up the good work!

Good, Amy – University of North Carolina Charlotte, Charlotte, NC

1. The facilitator did an excellent job.
2. 5-Exemplary
3. I liked when students built their own town.
4. N/a
5. 4-Very well
6. 4-Very well
7. The lesson ideas. I'm not sure we were sent the materials. I wanted to share materials with my students.
8. -

Gourneau, Bonni – University of North Dakota, Grand Forks, ND

1. Amazing presentation and choice of lessons and materials!
2. 5-Exemplary
3. Teresa chose great lessons, what would you do? Earth apple lesson, and the lesson on survival. The reflection part after the lesson was so valuable.
4. All were useful for sure!
5. 4-Very well
6. 4-Very well
7. They loved the interaction, smiles, knowledge, videos, and her kind personality!
8. Thank you! Can't wait until next semester!

Gulledge, Suzanne – University of North Carolina Chapel Hill, Chapel Hill, NC

1. The facilitator had complete command of the materials, understood the expectations and course objectives and was exceptionally facile with the questions and requests offered during the session.
2. 5-Exemplary
3. The demonstration of the well selected lessons for use with middle level students and the explanation of the population video were especially useful to these pre-service teachers.
4. those selected were entirely appropriate.
5. 4-Very well
6. 4-Very well
7. Yes, most of the students in the class are either doing projects that use the Population Education materials as the centerpiece or they have added the resources they gained from the workshop to their lists of references and resources for their teaching portfolio.
8. Sincere thanks and appreciation to Raf with whom we communicated and Carol who provided a truly memorable workshop for our class of pre-service teachers.

Harrigan, Kelly – Antioch University Seattle, Seattle, WA

1. Everything was wonderful! There were many strong examples offered, and I am confident that several of my students will continue taking on this work thanks to this webinar!
2. 5-Exemplary
3. The lesson where different forms of contaminants were put into water seemed so effective and so manageable in terms of preparation. Also, it could work well virtually or in-person!
4. No.

5. 4-Very well
6. 4-Very well
7. I think I (and we as a program) talk about how to bring issues of equity and justice into lessons, as well as how to meaningfully integrate content across subject areas, but it can be difficult to find strong examples of how this is done. And the lessons all supported these goals in multiple ways!
8. I had mentioned in another evaluation that I completed after class that using food as a material/manipulative (when it isn't ultimately eaten) can be harmful to students who experience hunger. But other than that, I thought this webinar was amazing and I look forward to having another webinar in my class this summer and beyond!

Hartwick, Reg – Trent University, Peterborough, ON

1. Abby did an excellent job of explaining the lessons and talking about strategies of implementing them in the classroom.
2. 5-Exemplary
3. All the lessons are great tools to use in a demographic unit. The teacher-candidates really enjoyed the mega-cities lesson as an excellent application lesson.
4. None.
5. 4-Very well
6. 4-Very well
7. All the teacher-candidates enjoyed the workshop. Obviously the free resources are a hit but the workshop modelled how to use them in the classroom. The workshop was hands-on where the teacher-candidates participated in the lessons to be able to understand how they worked. Plus the workshop was interactive whereby the teacher-candidates were able to talk with Abby. Well done.
8. Abby has a very nice presentation style. She is very knowledgeable about the material but provided her own insight in how they might be used in the classroom.

Hitt, Austin – Coastal Carolina University, Conway, SC

1. I thought the facilitator was on-point in terms of demonstrating the activities. The purpose of the activities was clearly communicated and the actual activities were effectively demonstrated.
2. 5-Exemplary
3. I thought the Panther Hunt was especially helpful because it was clearly adapted for the current online format which is the common modality in public schools.
4. None. All of the lessons were relevant and engaging.
5. 4-Very well
6. 4-Very well
7. I think the students found the seminar extremely valuable. The only thing that could enhance their experience, in my opinion, is some hands demonstration of the actual website. Basically just a brief tour of the site and specific lessons. I think that actually seeing the lessons online would encourage the students to visit the website.
8. If time and resources permit, I think it would be useful if more activities were translated to an online format. In our areas it is common for students to miss school for inclement weather (hurricanes) and online support lessons would be an invaluable asset to teachers. It would allow them to continue instruction at a distance.

Hokayem, Hayat – Texas Christian University, Fort Worth, TX

1. Excellent
2. 5-Exemplary
3. The carrying capacity, the population of the Earth
4. -
5. 4-Very well
6. 4-Very well
7. They enjoyed it!
8. -

Jones, Shannon – Virginia Commonwealth University, Richmond, VA

1. They did a great job virtually with visual aids and the use of the Google doc.
2. 5-Exemplary
3. In a Discussion Board, my students said the goldfish lesson, earth apple and water pollution were ones they could see themselves using.

4. N/A
5. 4-Very well
6. 4-Very well
7. They commented in the Discussion Board that they would use these lessons especially the goldfish lesson.
8. Thank you for presenting to my pre-service teaching students!

Kauper, Kate – Cornell College, Mt. Vernon, IA

1. Carol is very skilled in this regard.
2. 5-Exemplary
3. My students each had a different “favorite” lesson. They all found the lessons useful.
4. -
5. 3-Good
6. 3-Good
7. My French education student had a harder time translating the materials to her own discipline. If there are ways to integrate cultural connections for our foreign language ed. students, that would be particularly helpful.
8. -

Kiddell Robert – University of Victoria, Victoria, BC

1. Excellent. Thorough, thoughtful and well prepared.
2. 5-Exemplary
3. I thought all worked well.
4. No
5. 4-Very well
6. 3-Good
7. They found both the content and the way it was taught very useful.
8. A great job by the facilitators. Well done.

Kim, Cathy – Pacific Lutheran University, Tacoma, WA

1. Hard to remember specifics here. Teacher candidates were all positive about the experience.
2. 4
3. It was in September, so hard to remember, but I believe she talked about the concept across Go Fish, Something for Everyone, and For the Common Good. Given the challenging nature of having both elementary and secondary together, would have been good to actually do the early years one and talk about the build up. We also did Panther Hunt and the Tree cutting one. Any of your lessons are good if followed by a discussion that draws out application and STEM integration. Say, for example, teachers are asked how many ways they could bring math into Panther Hunt at their various levels - this would have made it stronger.
4. I can't recall thinking any of them were not useful - again, see above comment that any are good dependent on the discussion/application.
5. 4-Very well
6. 3-Good
7. Yes - they were all greatly appreciative. Just seeing lessons that hit on meaningful concepts in interactive ways is helpful. Might be useful to show how say, here is the standard and you have to teach XX concept, here is a way you can use population education (content) as a means to that - since very few if any of them, particularly elementary are going to be able to solely do population focused content. Hope that makes sense.
8. The courses I bring together that you all graciously spend time with is a methods course - so what you do aligns with the syllabus as a means of showing them how the talk moves and collaboration can work in a given content and ideas/lessons that they can use to bring into their classrooms. So for us, it's not so much the specific lessons that a facilitator chooses, but the thinking about them, the methods, the lessons themselves with possibilities **that** learning about PopEd provides. :)

Kim, Cathy – Pacific Lutheran University, Tacoma, WA

1. This was a bit ago - so take this as a “sense” - I recall that it might have been helpful to share/ elicit more strategies or ways of integrating lessons into the math/science skills teachers might be doing at varying levels. Or maybe it was the sense that the lessons were newer to the facilitator or with using tech.
2. 4
3. They are all useful - always love Panther Hunt. Timber is great too but seemed to need more explanation or

- demonstration if done online.
4. 4. No.
 5. 5. 4-Very well
 6. 6. 4-Very well
 7. 7. Absolutely! While Population Education in itself may not be something they can create a whole unit around, working the other way helps too - emphasizing the skills and how they can integrate PopCurr into what they will already be required to teach per their district curriculum and scope/sequence. We definitely want the science! but elementary schools have varying ways and structures by which they address science (if it is addressed at all), so how can we be creative in exposing students to this content?
 8. 8. Thank you!

Kim, Cathy – Pacific Lutheran University, Tacoma, WA

1. Both facilitators did a good job of explaining instructions and purpose and putting the activities in context.
2. 5-Exemplary
3. Always love the Panther Hunt - for the in-person and online interaction and the numerous extensions and opportunities for eliciting student ideas.
4. No.
5. 4-Very well
6. 3-Good
7. Yes - valuable to see content in application of specific lessons. As improvement, for Panther Hunt mentioned above: make sure for this activity would be to discuss those - and have time to get teacher candidate ideas on what things they could bring up to students during the debrief - depending on level, the various calculations and graphing/representations of the data, other questions/issues/patterns, etc.
8. Thank you so much for providing these for our future teachers!!! I know they will use them and appreciate having concrete lessons to use. As a suggestion, for both math and science, we spend a great deal of time and focus on starting with eliciting student ideas and facilitating student thought versus telling students concepts - there is already some of this, but increased modeling of this (as pre-assessment discussion or during/post discussion) would align well with NGSS and Ambitious Science teaching.

Kimori, David – Minnesota State University Mankato, Mankato, MN

1. Great
2. 4
3. The predators and competition for resources activity. It was engaging and reinforced the concept of lack of enough resources
4. Not really
5. 3-Good
6. 3-Good
7. My students liked the session especially on how to engage students in hands on activities in an online environment.
8. The facilitator was knowledgeable and flexible to online environment

Kirova, Anna – University of Alberta, Edmonton, AB

1. The facilitator was exceptionally flexible and adaptive to deliver the content of line, including some live demonstrations!
2. 5-Exemplary
3. Providing different ways of visualizing difficult to grasp concepts.
4. All lessons, but specifically presenting the same concept in a different way was very helpful to a group of internationally educated teachers who have little to no experience with differentiated instruction.
5. 4-Very well
6. 4-Very well
7. The opportunity to use the lesson plans in various modalities (i.e., online and face-to-face) is extremely useful during COVID when the possibility of teaching online is real, yet very little is done to prepare the new teachers to teach in a n online environment; they are mostly at the “receiving end” of the online teaching. I don’t see any need for improvement at this stage.
8. This is the second time I am using Population Education and am very impressed with the content as well as with the facilitating skills of the instructors/webinar facilitators. Thank you!

Kyle, Bill – University of Missouri St. Louis, Chesterfield, MO

1. Abby and Lindsey did an amazing job of presenting the materials for my class of 18 students via Zoom
2. 5-Exemplary
3. The students found all of the lessons to be of value.
4. No...
5. 4-Very well
6. 4-Very well
7. Yes, they overwhelmingly found the session to be of value for their role as future elem/middle school educators.
8. Abby and Lindsey are excellent in their presentation of the materials. Students find them to be most engaging!

Lambert-Banta, Ashley – University of Iowa, Iowa City, IA

1. The presenters were both professional. They were prepared with informative and engaging presentations. The presenters incorporated activities that facilitated discussions, such as interactive games and thought provoking questions.
2. 5-Exemplary
3. Our pre-service teachers love adding tools to their teacher toolbox. Farming a huge part of the culture in Iowa as well, so I like that the attendees brought this into the conversation and the presenter did as well in response.
4. N/A
5. 4-Very well
6. 4-Very well
7. Yes, they did. We love hosting the Population Education webinars each semester.
8. No, thanks so much!

Larson, Jodi – Virginia Commonwealth University, Moseley, VA

1. -
2. 5-Exemplary
3. All of them were useful
4. -
5. 4-Very well
6. 4-Very well
7. Yes! They all enjoyed it and were excited to implement them into their classrooms.
8. I appreciate everything Population Education is doing to reach not only students in K-12 classrooms but also in higher education!

Lin, Lin – SUNY Cortland, Cortland, NY

1. The facilitators are very capable to engage students online. The resources they share are very helpful.
2. 5-Exemplary
3. People Count, Chips of Trade
4. No. They are all pretty relevant and meaningful.
5. 3-Good
6. 3-Good
7. Yes. Engaging, age-appropriate curriculum and activities.
8. No, and thank you for providing these workshops for my students.

Lin, Lin – SUNY Cortland, Cortland, NY

1. The two presenters, Rafael and Lindsey, are both so capable to engage my students on online.
2. 5-Exemplary
3. The “go fish” is good for early grades. The Panther hunting activity is very useful. Interactive, relates to sustainability.
4. Nothing. Everything has been going well.
5. 3-Good
6. 3-Good
7. Yes. Could be more about social justice issues.
8. What you have been doing for my students is great. I would like to thank Rafael for always keeping in touch with me.

Luo, Fenqjen – Montana State University, Bozeman, MT

1. Excellent
2. 5-Exemplary
3. The interactive digital learning activity, the apple slicing activities
4. -
5. 4-Very well
6. 4-Very well
7. My students always appreciate hands-on activities. Some activities in the webinar are very hands-on.
8. -

Maness, Brandie – University of South Carolina Aiken, Aiken, SC

1. Facilitator was able to model appropriate methods.
2. 4
3. The integration of the Google slides interactivity seems to have made an impression on the teacher candidates in my course.
4. -
5. 4-Very well
6. 4-Very well
7. They shared that they thought it was useful. They were able to identify specific activities that they liked.
8. -

McCaffrey, Megan – Governors State University, Chicago, IL

1. The facilitator had a positive disposition and was able to engage students with both the content as well as there interactions with students.
2. 4
3. All
4. -
5. 3-Good
6. 3-Good
7. Yes. Students benefit most from any hands-on, practical activities
8. -

McDonald, Jim – Central Michigan University, Mount Pleasant, MI

1. It was strongly presented and my students thoroughly enjoyed it.
2. 5-Exemplary
3. The lessons were new since we have had this presentation before and they were good for a general audience.
4. -
5. 4-Very well
6. 4-Very well
7. The students did find the session valuable.
8. -

Merk, Hillary – University of Portland, Portland, OR

1. Abby did a great job engaging the learners in the lessons. The students really enjoyed each lesson!
2. 5-Exemplary
3. Each lesson was great. I think helping the students see how it can be adapted to to various elementary grades was nice.
4. NA
5. 4-Very well
6. 4-Very well
7. Yes. They have very positive feedback about the session.
8. -

Morris, Jessica – New England College, Henniker, NH

1. Excellent!
2. 5-Exemplary

3. The Panther and the dirty river.
4. No.
5. 4-Very well
6. 4-Very well
7. Yes!
8. -

Patel, Seema – California State University Monterey Bay, Seaside, CA

1. The facilitator was very effective in modeling, appropriate educational methods around population education. She was very clear with her expectations. Objectives were clear as well, and all students were very engaged in purposeful inquiry and activities.
2. 5-Exemplary
3. I liked all 4. The panther hunt was a favorite and I liked how clear the concept was shown through this activity.
4. All were great.
5. 4-Very well
6. 4-Very well
7. Yes. They loved it and many of them chose environmental science standards for their lessons. Inspired by this training.
8. 8. No. Keep doing what you're Doing. We loved it.

Pearson, Keisha – University of South Carolina, Columbia, SC

1. My students were very engaged and intrigued by the online tools used as well as the lessons from Population Connections.
2. 5-Exemplary
3. -
4. -
5. 3-Good
6. 3-Good
7. My students found everything to be valuable and useful.
8. Thank you!

Porath, Suzanne – Kansas State University, Manhattan, KS

1. She was very engaging and clearly articulated what she was showing and how it could be used with students. For some of the time, my pre-service teachers interacted with the materials as students, and then had a discussion about the process as teachers.
2. 5-Exemplary
3. The pre-service teachers really enjoyed the visual aspect of the lumber simulation. And, it was good to review the resources available.
4. No - I should have scheduled more time! :^) The pre-service teachers loved it.
5. 4-Very well
6. 4-Very well
7. Yes - they talked about it in our next meeting.
8. No - just excited to schedule another workshop

Radloff, Jeff – SUNY Cortland, Cortland, NY

1. She did amazingly!
2. 5-Exemplary
3. I always love Panther Hunt because it's so seamless on Google slides. All of them are great, but that one always stands out.
4. Definitely not! All useful.
5. 4-Very well
6. 4-Very well
7. Oh yeah. They always mention it afterwards and how wonderful it was. I've even chatted with student teachers who have referenced the lessons.
8. I have nothing but praise for Pop Ed (you rock)! Thanks, Katie!

Radloff, Jeff – SUNY Cortland, Cortland, NY

1. Lindsey was awesome--she did a wonderful job facilitating the students' engagement in the tasks. It's a morning class and she had students participating and answering via the Chat and by voice.
2. 5-Exemplary
3. I think getting a refresher on Panther Hunt and the Potomac Pollution were very useful. I feel invigorated to think about my curriculum after these workshops.
4. N/A
5. 4-Very well
6. 4-Very well
7. The students all described the seminar as useful and very much enjoyed it. The most valuable part right now (from my own perspective) is engaging the students with effective and experiential online lessons that are set in the real world.
8. I love Pop Ed workshops and look forward to scheduling/seeing you in the spring. If we don't correspond before then, I hope everyone has a wonderful holiday!

Radloff, Jeff – SUNY Cortland, Cortland, NY

1. Pete is a phenomenal facilitator. He is engaging, knows what he is presenting, and is very personable.
2. 5-Exemplary
3. All of them! It's hard to pick just one. The best part this semester was being able to see some engaging remote lessons/resources.
4. No
5. 4-Very well
6. 4-Very well
7. Yes, they loved the lessons and said Pete was great as well.
8. Please keep doing what you're doing. Population Education is essential, and the seminar is always a highlight of the semester.

Rajdev, Usha – Marymount University, Arlington, VA

1. Excellent. Hands on approach. Students enjoyed the workshop.
2. 5-Exemplary
3. All of them. They met the criteria of the content of my course.
4. None
5. 4-Very well
6. 4-Very well
7. Yes. Were able to implement activities in their assignment.
8. None

Rajdev, Usha – Marymount University, Arlington, VA

1. Engaging and interactive
2. 5-Exemplary
3. All were relevant lessons across the curriculum
4. Not at the moment. My pre-service teachers were extremely excited with the resources.
5. 4-Very well
6. 4-Very well
7. Absolutely. They used activities taught in their assignment. Thus. no doubt it was useful
8. Can't wait for face to face in the fall, hopefully.

Reis, Giuliano – University of Ottawa, Ottawa, ON

1. excellent
2. 5-Exemplary
3. how important pop ed is for the understanding of what we are doing to the planet
4. -
5. 4-Very well
6. 4-Very well
7. -
8. -

Sanchez, Wenji – University of Mindanao, Davo City, Philippines

1. The facilitator did very well in modeling appropriate educational methods and engaging the participants during the workshop. The instructions were easy to follow, materials are readily available, and activities are highly engaging.
2. 5-Exemplary
3. The most useful part of the webinar was the demonstration of a few activities from the lesson plans. It was clear to us how to implement the lesson plan for our students.
4. None. All lessons were useful to me and my group.
5. 4-Very well
6. 4-Very well
7. The knowledge my students gained from the webinar is very valuable to my students. I can see how they have learned and enjoyed the webinar from the evaluation that I gave to them. They find the webinar helpful in preparation for their career and most especially the lesson plans that they received from PopEd. For them, those lesson plans will be of big help to them. I see nothing to be improved from the webinar. Everything is perfect.
8. Once again, my heartfelt gratitude to Population Education for another fantastic webinar. We are very lucky to partner with PopEd because of opportunities like the webinar and resources from your organization. I am personally thankful to PopEd because through these opportunities I am able to help my students develop their teaching skills. It is my personal mission to equip my students with the skills they need in the field and PopEd help me achieve this goal. I am hoping that this partnership will continue. Thank you once again and more power to your organization.

Sanchez, Wenji – University of Mindanao, Davo City, Philippines

1. The facilitators are excellent in their ability to demonstrate the lessons to the participants.
2. 5-Exemplary
3. I find the actual demonstration of the lessons very useful, especially that my students were able to observe how to put the lesson into practice.
4. I am teaching preservice social studies teachers and all the lessons are useful to our field.
5. 4-Very well
6. 3-Good
7. I solicit feedback from my students regarding the session and the response was overwhelmingly positive. They found the session very useful since they were able to learn new and interactive ways of teaching social studies. Lastly, they also love the resources from PopEd's virtual library.
8. My warmest thanks to your organization for the opportunity and resources for me and my students. I will continue to support the advocacy of PopEd by spreading awareness and by using the resources from your organization. I am hoping that you will continue to provide valuable resources for students and for society in general.

Sizemore, Larry – Towson University, Towson, MD

1. -
2. 5-Exemplary
3. They all fit with what we were talking about in class, making math engaging by making it authentic.
4. I would like more early elementary focused activities
5. 4-Very well
6. 3-Good
7. Not sure
8. I thought the photos of people engaged in the non-virtual versions of the activities were useful for students trying to visualize how they might play out in a classroom.

Smith, Rebecca

1. The lessons were engaging and fun for students.
2. 4
3. The population pool activity was very fun.
4. Doing the lessons virtually while the class was together was just a bit of a challenge. An in person session is preferred for the future.
5. 4-Very well
6. 3-Good

7. I think students enjoyed the presentation and the access to resources online.
8. I would love to collaborate again in the future. Thanks!

Smith, Rebecca – University of Portland, Portland, OR

1. They were very creative and provided numerous interactive activities.
2. 4
3. The population video was interesting, and then the data set where students had to create a population and then a business to support it was really effective and fun.
4. The pool activity about distributing resources was effective but perhaps the timing or pacing was a bit of a challenge. Less time was probably needed on this activity.
5. 4-Very well
6. 4-Very well
7. I think they appreciated the resources and cross-curricular themes.
8. I appreciated that it was a brief 1.5 hour presentation, but the presenters felt rushed. Perhaps planning fewer activities would make the time feel meaningful without feeling rushed.

Spalding, Lee-Anne – University of Central Florida, Orlando, FL

1. We do a hybrid session where the lessons are described online and I provide the materials for my students to experience them hands on. It works well.
2. 4
3. Apple, needs and wants
4. no
5. 3-Good
6. 3-Good
7. Yes, they enjoy getting additional resources to add to their tool box.
8. no

Spalding, Lee-Anne – University of Central Florida, Orlando, FL

1. Engaging, motivating and flexible as I added content to facilitate connections to our course and your content.
2. 5-Exemplary
3. Apple lesson- anything hands on is the best!
4. no
5. 3-Good
6. 3-Good
7. Yes the always do. I explain that teaching in an interdisciplinary way is vital to hit all the standards required of teachers these days.
8. I like how the lessons show that Social Studies, Science and Math can be taught well, together!

Steck, Eileen – Virginia Commonwealth University, Richmond, VA

1. Raf and Abby did a wonderful job keeping students engaged. They also had good pacing and timing, which allowed for comments and questions.
2. 5-Exemplary
3. Apple of our eye- allowed for visuals and a multitude of age and grade level options.
4. 4. -
5. 5. 4-Very well
6. 6. 4-Very well
7. 7. Yes! We discussed ways that they wanted to use the information that they received. They were also glad to have a link for all the lesson plans. Several also share with their mentor teachers.
8. I learned so much! Thank you!

Stickney, Jeffrey – University of Toronto, Toronto, ON

1. Very good. We had some tech problems on our end but she was great at adapting to the changing situation of on-line learning, modelling ways to adapt on the spot and yet keep the focus in moving forward.
2. 4
3. The scarcity game was most engaging but one of our students cheated by taking more than allowed at one time,

so this created a difficult challenge for the facilitator. But again, the content or message came through and they had fun.

4. No, they all worked well. I did like the carbon crunch activity when we did that in-person three years ago; i know it is on-line now as a webinar.
5. 3-Good
6. 4-Very well
7. Yes, and they especially appreciate the many resources you make available to them.
8. I will book again for next year. Thank you very much!

Stickney, Jeffrey – University of Toronto, Toronto, ON

1. Excellent. The audience of teacher candidates appreciated Carol's effective engagement with the class, and the smooth flow from one activity or topic to another.
2. 5-Exemplary
3. The resource scarcity game was most engaging for the class, and tied nicely into Garret Hardin's theory of the "Tragedy of the Commons".
4. No. Even general background on exponential population growth was good as a review, and ties into the Social Sciences curriculum for a course in Ontario called "Society: Challenge and Change." This also explains my high score below, as it cover part of the curriculum we want our teacher candidates to teach in schools. Resource scarcity connects with a a course i teach these students earlier, and so brings in the component of environmental sustainability education.
5. 4-Very well
6. 4-Very well
7. Yes. One of the students last year, who was president of the Master of Teaching Student Association, said it was the best training she had received in her two year program. I have shared PopEd resources with several classes now, and the teacher candidates and practicing teacher s alike greatly appreciated the curriculum resources that come with these webinars.
8. I will certainly invite PoEd back next year, and was glad to share this with the Geography instructor last year and new one this year. They also shared strong appreciation for Carol's talk and resources. Thanks!

Sulsberger, Megan – California State University Monterey Bay, Seaside, CA

1. It was excellent and appropriate for the online context.
2. 5-Exemplary
3. We have chosen the same lessons for a couple of years because they are really related to our CA NGSS. They liked all of them.
4. None
5. 4-Very well
6. 3-Good
7. Yes- the curriculum was so appreciated. The online teaching tools were too! They used the lessons right away in their classrooms.
8. When you show the standard connections, maybe provide time for more discussion about grade level appropriateness of each. How would teachers scale up or scaffold to support the lesson in their own grade? I think they would enjoy some reflection on this, as well as locating the specific content connection.

Sulsberger, Megan – California State University Monterey Bay, Seaside, CA

1. Wonderful job modeling educational methods
2. 5-Exemplary
3. All of them! The students really benefitted from seeing NGSS and the Environmental Principles for CA actualized in teaching. The adaptability and usefulness of online pieces and resources were appreciated, too!
4. No
5. 4-Very well
6. 3-Good
7. Yes! They loved the curriculum and online templates provided. Many incorporated pieces into their lessons in class and at their placements.
8. I think more work could be done fitting the activities to learning standards-- specifically NGSS, math, and the Environmental Principles. In CA, we think of lessons as fitting in one grade level (based on the standards they meet) instead of a range. We usually don't base lessons off of just crosscutting or practices; we lead with content.

So I usually do some discussion with my students after the trainings about this. There is just so little time for science; leading with content is what they need to do.

Taylor, Amy – University of North Carolina, Wilmington, Wilmington, NC

1. Multiple strategies and tools were used to engage the group.
2. 5-Exemplary
3. The interactive google slide activities were amazing.
4. n/a
5. 4-Very well
6. 4-Very well
7. Yes. the students enjoyed the webinar and look forward to using the resources provided with their future classes.
8. -

Viera, Cristina – University of South Florida, Tampa, FL

1. Lindsey Bailey did an amazing job in presenting population education resources and lessons. She clearly explained and scaffolded several relevant activities. Lindsey has an incredible ability to focus on details, which leads to meaningful and impactful presentations.
2. 5-Exemplary
3. The world population timeline is always a huge hit with undergraduate students which effectively highlights through visuals the intersections of food, health, people, environment, and science.
4. No.
5. 4-Very well
6. 4-Very well
7. Absolutely, students found the presentation, activities, and tools valuable for future lessons. The tech tools for integrating into lessons are especially valuable. These tools are easy to integrate, even in a tech constrained school environment.
8. Please keep doing the work you are doing! Population education is instrumental in helping preservice teachers integrate contemporary global issues in social studies classrooms.

Walker, Irene – Illinois State University, Normal, IL

1. The facilitator was well knowledgeable of the materials.
2. 5-Exemplary
3. -
4. -
5. 4-Very well
6. 4-Very well
7. -
8. -

Watt, Diane – University of Ottawa, Ottawa, ON

1. The facilitator was an outstanding communicator. He was personable and well-organized, and he spoke clearly. His modelling of appropriate educational methods was exemplary. It was easy to understand and follow the activities. The visuals clearly supported the presentation.
2. 5-Exemplary
3. The polluted river activity was wonderful. Many teacher candidates mentioned afterwards that they would like to do this with their own classes.
4. No
5. 4-Very well
6. 4-Very well
7. Teacher Candidates found the session informative and engaging. The activities were practical and strong links were made to curriculum. Most were not aware of the population issues being presented, so it was also a learning experience for them at this level.
8. These sessions are so valuable for our student teachers. I hope they will continue to be made available online. We don't have access to anything like this elsewhere.

Watt, Diane – University of Ottawa, Ottawa, ON

1. Engaging, informed, organized. Wonderful modelling!
2. 5-Exemplary
3. All of them!
4. No
5. 4-Very well
6. 4-Very well
7. Teacher candidates loved this workshop.
8. I would like to schedule another one in the fall of 2021.

Winner, Nicole – Towson University, Towson, MD

1. The facilitators did an excellent job of delivering virtual instruction and getting the important aspects of the lessons delivered. They kept my PSTs engaged.
2. 5-Exemplary
3. Panther Hunt is always fun and relates to many different mathematical concepts.
4. n/a
5. 4-Very well
6. 4-Very well
7. 7. Yes.
8. We hope to see you all again in the fall. Towson University will be fully in-person, and anyone on campus must be vaccinated. I am not sure if this applies to guests. I will keep you all informed.

Zwicky, Cynthia – University of Minnesota, Minneapolis, MN

1. He was engaging
2. 4
3. The technology was a bit clunky to use with the deer and wolf game but it did get the message cross about the food chain and survival
4. -
5. 3-Good
6. 3-Good
7. Students appreciated seeing live, hands on resources that they could use with their own students
8. Thank you for continuing this opportunity even during a pandemic.
7. My students found the webinar helpful. But I do not see how they can “practice” the lessons given the limitations produced by the pandemic. Perhaps a short video of a teaching working with students?
8. I found the facilitators to be very professional. Because I was still struggling with technology at the time, it would have been stress-relieving to get an email prior to the session with names of the facilitators and what they expected of me.

Email Questionnaire: Online – Recorded Webinar

1. Describe the facilitator’s ability to model appropriate educational methods and provide an engaging experience.
2. On a scale of 1 to 5, how useful were the reflection questions included throughout the recording? Explain.
3. Which lessons from the webinar did you think were especially useful? Please explain.
4. Were there any lessons from the webinar that you didn’t think were useful and/or appropriate for your group? Please explain.
5. How well did the webinar mesh with your course syllabus?
6. Overall, how well did the activities we shared fit established content standards?
7. To your knowledge, did your students find the session valuable for their future roles as teachers? Please comment on what was most valuable and/or where you see room for improvement.
8. Do you have any additional comments, compliments, or suggestions?

Responses

Bousalis, Rina – Florida Atlantic University, Boca Raton, FL

1. Nicely done.
2. 5-Extremely Useful; Extremely useful; they were similar to mini-assessments throughout the lessons (checking to see if students understood the info and then asking them to reflect on what they learned).
3. I believe there were two great lessons: “Who Polluted the River?” and “Needs and Wants.”
4. They were all good.
5. 4-Very well
6. 4-Very well
7. I feel that your lessons really helped students understand the importance of ‘place’ (geography).
8. I look forward to your organization’s visit soon (when I teach face-to-face). I will let you know when this happens!
Thank you.

Dyer, Rochelle – St. Cloud State University, St. Cloud, MN

1. Students found the format easy to understand and easy to follow.
2. 5-Extremely Useful; Several students emailed to share that they really appreciated the training and found it incredibly useful and applicable to their teaching.
3. Various students appreciated various lessons differently depending on whether they were elementary or secondary.
4. N/A
5. 4-Very well
6. 4-Very well
7. Yes, they talked about how many areas/subjects these lessons would fit in and how they could accomplish multiple standards with several of them.
8. As always, Population Education does an outstanding job preparing professional development for future and current teachers.

Ibrahim, Sheliza – University of Toronto, Toronto, ON

1. Population videos we’re used and modelled for developing numeracy skills.
2. 4; It’s hard to remember the questions to adequately respond to this question.
3. The Population lesson because it tied in with their learning on data and graphic representations,
4. not that I can think of.
5. 4-Very well
6. 4-Very well
7. yes, they could see how they model the activities inter own practice.
8. -

Mata-McMahon, Jennifer – University of Maryland Baltimore, Baltimore, MD

1. Very good
2. 5-Extremely Useful
3. I think they were all useful, there wasn’t one that was particularly more useful than the rest.
4. N/A
5. 3-Good
6. 4-Very well
7. In the past, I know it has been useful for my students for future planning. In this particular instance, I’m not sure because they didn’t share their experience with me.
8. I always find the pop ed workshops very informative and my students always enjoy them very much and find them useful, which is why I continue to request them for my course. Thank you for this important work!

Porter, Johanna – Rivier University, Nashua, NH

1. -
2. 4
3. -
4. -

5. 3-Good
6. 3-Good
7. -
8. -

Quita, Isabel – University of Illinois at Urbana-Champaign, Champaign, IL

1. -
2. 5-Extremely Useful; My class of credential students-student teachers reflected on the usefulness of the Webinar lessons for distance learning. Students were able to modify ways on how to use the materials for in-person instruction according to grade level.
3. All of the lessons
4. none
5. 4-Very well
6. 4-Very well
7. Yes, they were able to teach a few of the lessons to their current field placement classrooms.
8. I thought the Webinar was very engaging, age-appropriate and flexible in adapting to target grade levels, with modifications. Thank you for a very organized presentation of NGSS-based lessons/series of activities.

Seung, Elsun – Indiana State University, Terre Haute, IN

1. Very good!
2. 5-Extremely Useful; Students are able to think how to connect the activities to their actual lesson plans.
3. Who Polluted the Potomac _ understand the possible causes of pollution Panther Hunter - fun hands on activity
4. -
5. 4-Very well
6. 4-Very well
7. Most students told me that the session was very helpful.
8. -

Taylor, Amy – University of North Carolina Wilmington, Wilmington, NC

1. The instructions were clear and the modeling was beneficial.
2. 4; These webinars are for my students who will be elementary teachers. It is helpful for them to reflect on how they may use this resource.
3. all. there was a nice mix of activities. The potomac is always the favorite.
4. Not really but any lessons that can be useful for integrating science and math/ELA/social studies is the most useful.
5. 4-Very well
6. 4-Very well
7. Yes...obviously face to face are more effective and engaging based on my students comments but for an asynchronous class these webinars work well. I would say most if not all found the curriculum interesting and are looking forward to using it with their future students.
8. -

Trites, John – College Board, Berwick, NS

1. I was very impressed with how many good teaching ideas were included in 30 minutes. The presentation was very interesting and well done. It provided great opportunities for discussions regarding why certain activities were suggested and how to build upon the ideas suggested.
2. 5-Extremely Useful; I find that sometimes presentations such as this provide what I would consider 'busy' questions that seem to be designed to keep students busy rather than to make students think and understand. I liked the questions that Lindsey shared with us. They were designed to promote understanding of key ideas.
3. I liked all the lessons that were shared, but I was particularly interested in the population pyramid. What was shared with us was a great start to the topic. It would be very easy to use this to lead into additional work based upon the population age/sex distribution.
4. No
5. 4-Very well
6. 4-Very well
7. Please see comments below

8. I wish we had more time in our APSIs to actually work with some of this material. New expectations from the College Board have resulted in much less time to work with the teachers on this material. Instead, it tends to be a situation where we tell them how useful your information and activities are, and we encourage them to examine them on their own time. Some of the teachers will do so, but some will not find the time to do so, and as a result they miss a wonderful opportunity. Many of the new APHG teachers are new to Geography and therefore even if they do examine your lessons on their own, they acquire just the basic knowledge that comes with the activities. (This is not a criticism of the activities.) What the teachers miss is the opportunity for discussion with other teachers and the Workshop Leaders regarding how to really develop and understand key ideas, and how to use the activities as a starting activity, leading to additional work that goes into greater depth.

Wojnowski, David – Georgia State University, Atlanta, GA

1. She did a good job modeling the methods and was engaging.
2. 5-Extremely Useful; It really helped keep the students engaged and motivated to pay close attention to the information provided.
3. I don't recall specific lessons. I would have to go back and look.
4. Not that I can remember.
5. 4-Very well
6. 4-Very well
7. Yes, most responses were positive.
8. This curriculum is an important addition to any science or STEM program.

APPENDIX G

POST-WORKSHOP EVALUATION COMMENTS

Listed below are selected comments received from workshop participants on their post-workshop evaluation form. All comments received were screened. For both online and in-person workshops, positive comments outweighed criticisms and suggestions by a wide margin. For sake of manageability, only comments that were deemed to be especially significant or instructive, or that allow us to fully reflect the breadth of responses are included here. Comments are grouped by question.

1. What was the most useful part of the workshop?
2. Please share your comments on any of the specific activities demonstrated.
5. Do you see any ways to increase the usefulness of these workshops and/or the activities?
6. Please share any comments on this workshop's facilitator. (in-person only)
6. Any final comments, questions, or suggestions? (online only)

Questions 3 and 4 are based on a numeric scale and are not included in this report. Comments have been transcribed as they written on the evaluation forms.

Responses

Question #1 – What was the most useful part of the workshop?

1. Actual lessons that I can directly incorporate in classroom
2. I really enjoyed this workshop as it was very hands on and helped me find new methods of teaching and demonstrating activities.
3. Getting to see and participate in the lessons from both a student perspective and an educator's perspective
4. Showing creative ways to teach social studies and also discussing how to link it to other subjects. Actually doing the activities as if we were a student.
5. Introduction to the virtual tools and population websites
6. I would say the real life lesson plans is by far the best part of this workshop. As a future educator this could be extremely helpful if one of my lesson plans is lacking in a area to cross reference.
7. Partaking in activities that can be directly implemented into my future lesson plans, including the activity "The Web of Life". Additionally, the activities integrated subjects like mathematics and ELA/literacy into the science content instruction.
8. The access code to the curriculum. It contains such great lessons!
9. provided me with fun and engaging activities! it's hard to find stuff for science related concepts and i found these activities to be very useful!
10. Learning about what happens when the population is growing.
11. Seeing the different and fun activities to show real world problems. Gets us engaged and more interested to learn.
12. I liked that the lessons were modeled. I have observed minimal science lessons in my field experience, so this was beneficial.
13. The most useful part of this workshop was making it interactive and engaging although it was online.
14. The demonstrations of different lessons that are available via the website was very helpful, it shows us the versatility of what the website offers.
15. The discussions about how things can be modified depending on grade level, content area, and how instruction can be furthered and related to the world around students/other subject areas.
16. The instructor was extremely enthusiastic and helped to create an engaging classroom environment! I enjoyed learning about and completing the lesson plans during this workshop.
17. The hands-on, collaborative, and meaningful learning experience
18. Using different materials to use math. I never thought about using cookies to be part of a lesson.
19. Understanding the different aspects of population and how it can impact us on a local, national, and global scale

Question #2 – Please share your comments on any of the specific activities demonstrated.

1. The graphs gave such rich data for students to discuss
2. I appreciate all the high level learning/information students can incorporate to enhance learning.
3. It would have been better is we participated in the lessons from a student lens and then debriefed among ourselves how we'd implement then see the lesson plan resources. We didn't even see a lesson plan.
4. They were great and adaptable for any classroom.
5. Loved the take a stand lesson! Such a great way to get the class talking
6. The "Web of Life" activity is extremely useful for the aforementioned reasons. However, it would be helpful to learn more examples of how to further modify the lesson for higher grade levels.
7. The poker chips activity was super engaging and fun to do. I loved how we all figured out how to play the game and be cooperative. The Web of Life was very informative and helpful for us to understand ecosystems.
8. I like the Goldfish Empathy activity, but I would make sure the fish are not food instead have them laminated to eliminate any students from getting stressed out if they did not come to school without eating and being hungry.
9. I really enjoyed them! I would definitely use them in my future classroom.
10. I really liked the apple lesson and the video about world population. I am really big on visuals and how those numbers are affected so I thought those sites were awesome.
11. All of the lessons were great. I really liked the station piece (which can certainly be expanded and manipulated) as well as the bargaining piece of the One for All lesson
12. I personally would have liked to see more of the actual content being taught.
13. the lesson about population density was super cool when we got to look at a map of the world & type the characteristics we noticed & any questions we had or inferences we could make based on placements of the yellow dots.
14. They were amazing!
15. I personally feel that some of the lessons could be harder to implement because of the set curriculum that the county gives us to implement.
16. More in-depth explanations of the in-person activities instead of the virtual activities.
17. As much as I loved the lessons, I gave them a 4 because I think teachers should avoid using food that students can't eat in lessons. I intern at a title one school and there are kids that don't always have enough to eat, so it feels wrong to play with food and waste it if they can't eat it. Most foods came be replaced with other materials.
18. I would love to see the addition of student agency/choice. However, this would be above and beyond.
19. They were all really fun my only concern is finding standards that align with the lessons
20. Going over more of the activism and students resources. Going more in the Interdisciplinary topics like gender and what not!
21. Loved the Panther. We will do this with the entire middle school and teachers as a collaborative lesson.

Question #5 – Do you see any ways to increase the usefulness of these workshops and/or activities?

1. What is the data based on? How effective have these lessons been in the classroom. Regards to student problem solving, math, and critical thinking
2. Incorporate into clubs where students can work to solve for something they felt connected to in class.
3. Not really other than perhaps having some Canadian Content as well.
4. I would like to see more over different social studies topics, so we aren't focusing mainly on geography/world history.
5. I think it'd be neat to make the map lesson more interactive—or at least create some questions for kids regarding the video, so they're on track, especially if they're younger.
6. Having alternatives for lessons that do not require food would be helpful. While using food is fun, it can be problematic.
7. No, this was an amazing workshop with so much beneficial information and resources!
8. I would say to look at different curriculums in the county.
9. Do them more throughout the school year.
10. Maybe overview the specific standards and planning formats, how to use them within the 5E lesson plan
11. One thing that would be beneficial to other teachers would be placing the national standards for each lesson on the screen so they are able to connect it to their state's standards.
12. I think by not having the webinar be so long. Instead I was I thinking if it was split it up and ended on the response questions I feel we could really digest it better than having it be so long.

13. Have everyone bring their devices and actually log onto the site and do an activity.
14. Explaining causes and solutions -> why are some countries expected to have decline in pop? How can other countries get there? Why does population grow in some places and not others?
15. One way to make the lessons more useful could be to provide more information about each of the specific topics/content areas that the ideas cover.
16. I would have liked to have some time to discuss the activities with peers on how we would integrate them into the classroom, relate them to standards, etc.
17. I would just like to make I, myself, am prepared to give these lessons in my classroom and talk to my school team about it.
18. Bringing in state-specific local phenomena
19. Speak on how the lessons are culturally relevant and a JEDI (Justice - Equity - Diversity - Inclusion) lens so we can know where there needs to be more integration.
20. Paper copies of the lessons to read as they are taught
21. We need more time! Great activities!
22. No this was great! Actually, the only thing was the amount of paper we got at the end.

Question #6 – Please share any comments on this workshop’s facilitator. (in-person only)

1. I appreciate her personal stories of how she has implemented the lessons
2. This workshop is the most practical of the ones I’ve attended today. These align perfectly with our standards. I also appreciate you being aware of the social/emotional responsibility of teaching this subject.
3. Well-prepared and engaged. Good voice and engaging.
4. The facilitator was informative and effective.
5. Very good ideas for increasing engagement and critical thinking.
6. She was lovely! So friendly and helpful, engaging us and leading us to think about ways to use these activities in our own classrooms. Thank you!
7. This presenter was great and very well spoken and hands-on and got the crowd/people involved.
8. Great facilitation! Hands-on, very thorough
9. Passionate facilitator!
10. Great! Very clear and interesting
11. Thoughtful and excited to share!
12. Passionate, enthusiastic, energetic, engaging
13. Lovely facilitator, clearly dedicated to her work.
14. She was amazing. I wonder how I might have changed if she were one of my professors. What a great way to start this workshop.
15. I love this, very good activities to give students the opportunity to think and reflect.

Question #6 – Any final comments, questions or suggestions? (online only)

1. I loved this. I was learning about the world but also linking it to things that can be done in the classroom
2. I am sad to come to the very end of the session. Very interested to learn more.
3. Thought the lesson was enjoyable and fun. Good way to get students to try skills in practical ways
4. Great concept! Really fun to participate in
5. I loved our guest speaker!!!
6. I hope to see more of these workshops soon
7. I did not learn one thing to use in my classroom. Maybe this was a good lesson for older children but it wasn’t for me as a PreK teacher.
8. I think this was a great workshop and got me more excited to see these lessons and programs used in classrooms. I love the idea and heart behind this organization to
9. Amazing program! Would love to see in person
10. I think the breakout rooms could have been better moderated. My group did not really help me while working
11. Always a pleasure. Can’t wait to see what else you come up. PE is an excellent resources:)
12. Excellent session. I learned a lot and will look at the lesson plans for middle school adaptations.
13. Ask the audience how technologically advanced they are. Some already used jam board and mini meter so there is no need to go so in depth with the application

14. These activities were so fun and different than anything I've seen before
15. Nope, other than the fact that Sheryl was great! I wish we'd had more participants in the session, which is the only reason I didn't give the webinar a score of 5. Having more cross-talk with other math teachers and more brains to tap for implementation/integration ideas would have been great!
16. As an elementary science teacher I plan to share these ideas and lessons with co workers.
17. Thank you! Very useful ideas, and very important to work these concepts into all of our curricula, at every age!
18. I'm curious about the argument of population being the core environmental problem (in the video). I've heard other arguments around the problem being more about how we manage resources and regulating companies that contribute to the majority of environmental problems. Something to think about.
19. When giving instructions for what to do in the breakout room it would be helpful to see the model while the teacher is explaining the rules. When sharing videos/ audio on zoom, it is clearer to click on "optimize for sound and video" (at the bottom of the share page screen when selecting which page to share).
20. Would love to have a presentation at our next conference! Thank you! It was so amazing. Ive already used the free lessons (specifically the ones for worldpopulationhistory) so it was awesome to learn about the rest of what is offered and have it explained by creators
21. World of 8-billion video project site impressive

