



Commentaries in Urban Education

CWP 2.0 - A Transdisciplinary Program Expanding Access to Arts and Technology for High School Students

Abstract

CWP 2.0 is a transdisciplinary arts and technology program. Each year the facilitation team- Community-Word Project (CWP) teaching artists and professors and graduate students from New York University and Georgia Tech- designs a transdisciplinary project with approximately 15 students from different New York City Title I high schools. Unlike other STEAM (Science, Technology, Engineering, Arts, and Math) projects, the arts are not superimposed but rather are a fully integrated component of CWP 2.0. Arts education at its core fosters a sense of "permission" for students to experiment, create, fail, and think critically. The goal of CWP 2.0 is to expand access to skills and opportunities in technology and the arts for students who come from historically marginalized communities. This article will discuss how the program builds on this foundation

of exploration and experimentation to foster a space within which students can create using what they already know and why they learn throughout the program.

Keywords

STEAM, transdisciplinary, arts education, computing education, access, social justice, Social and Emotional Learning

How to Cite

Leonard, E. A., (2024) "CWP 2.0 - A Transdisciplinary Program Expanding Access to Arts and Technology for High School Students", *VUE (Voices in Urban Education)* 52(2). doi: <https://doi.org/10.35240/vue.116>

1506

 Views

0

 Downloads

Community-Word Project (CWP) is an arts education organization that provides integrated arts programming to students throughout New York City public schools. The majority of CWP's programming consists of in-school and after-school residencies that run for 10 to 25 weeks. During in-school residencies, professional artists (teaching artists or TAs) "push into" classrooms to provide

arts workshops that build on and integrate the academic themes and skills students are studying during the time of the residencies. All CWP residencies are taught with a view toward social justice and through an antiracist lens. Most CWP residencies are interdisciplinary and taught by a creative writer and an artist working in another art form.

CWP's interdisciplinary model made launching CWP 2.0 seem like a natural progression for the organization. The idea began when a group of high school students who had participated in CWP classes during their freshman and sophomore years requested a workshop that took place outside of regular in-school programming. Because of a connection between CWP founder and executive director, Michele Kotler, and New York University (NYU) professor, Dr. Kayla DesPortes, the idea for the incorporation of technology as a third modality in an interdisciplinary program began to take shape. During the spring and summer of 2019, the students who had pitched this new kind of program became thought partners in brainstorming what it could look like. A small focus group of students and teaching artists worked with Kotler, DesPortes, and other CWP administrators and teaching artists to begin to design what would become CWP 2.0. They decided that the program would be an opportunity for students to explore and create in new ways, as well as to discover different career and educational paths to which students of color and students from other marginalized communities are and have historically been too often excluded.

From its inception, therefore, the program was student-centered and included students and artists as co-designers. This has been a critical component of the social justice and anti-racist dimension of CWP 2.0. Often a barrier to access is a perceived lack of permission to gain access. This perception, of course, can be linked to the very real and historical lack of accessibility based on several reasons, including discrimination and poverty. This is why it is important to generate more opportunities for those who have previously been excluded from higher education, the arts, and technology, and to subvert the perception of accessibility and permission by empowering the students to be leaders in the work.

Other arts, STEM, and STEAM (Science, Technology, Engineering, Arts, and Math) programs might view as disparate or tangential social justice and SEL practices from the core CWP 2.0 arts and technology disciplines, but they are foundations upon which the program is built. Some of the logistics, for example, encourage exploration and build self-confidence which encourages students to take risks,

such as with a new art form or by learning new code. Students travel to a new location and work with peers from different schools and neighborhoods. Participants are empowered to navigate the New York City transportation system by themselves and with each other. During the 2023 summer iteration of the program, many students arrived early each morning to walk around the area near the 370 Jay Street MetroTech campus in Brooklyn. They made friends with students from other boroughs and discovered new places to go together.

Artists have long known that being immersed in a new environment promotes creativity, and that collaborating with others, especially within a space that fosters and celebrates the diversity of all its members, also encourages innovative thinking. This is essential to all creative endeavors, artmaking and computing, included. It also builds on this sense of permission which confronts the marginalization of people of color and inner-city youth. It confirms for the students that they have as much right to the city, to creativity, to art, and to technology as anyone else.

Program Structure: Student-Centered and Responsive

In addition to being guided by students' interests, skills, cultures, and communities, the format of CWP 2.0 also centers accessibility, and students' needs and interests. This format, then, must be flexible to meet the needs of new students and respond to the existing variables and circumstances under which everyone is operating. Each year, therefore, the program has been adjusted to meet new needs and realities.

First Year: 2019-2020

The focus group that began to develop the idea for CWP 2.0 agreed that students and artists needed more than one school period per week to create something truly meaningful. They decided that the structure of the program should be two to three hours per day, two days per week, for several weeks. As part of the element of college and career exposure, it was also determined that the group would meet at NYU's 370 Jay Street Campus and CWP's Wall Street area office. The students would, therefore, have access to two distinct styles of workspaces and two different neighborhoods.

COVID-19 Pandemic Pivot. The pandemic began less than halfway through the program, and the facilitation team worked hard to design a relatively seamless pivot to remote classes. Students could not continue their projects as originally imagined since no one was permitted access to the CWP and NYU buildings to retrieve the students' work. The team still hoped to honor what had already been created in some way, and they wanted to develop new lessons quickly to maintain the momentum of the projects and provide a continued space for the community that had been growing during a time when community was critical.

Students and facilitators began the program by exploring the idea of using found and recycled materials to create something new, both to respond to students' interest in climate justice and to symbolize to students that they have access to valuable resources within their own communities and themselves. This principle guided the transition to remote classes. Facilitators taught students how to use their own technology—phones, laptops, and tablets—to code and create art. Students were also encouraged to incorporate recycled materials and objects significant to them into their artwork. Students built on the photographs they had taken during the in-person classes. They created digital collages with these photos and then worked in digital dialogue with one another, responding to each other's projects by adding layers of collage, video, words, and even movement and music.

Second Year: 2020-2021

During the late spring of 2020, CWP decided to continue to provide only remote arts residencies during the 2020-2021 school year. Learning from the experience of the first remote cycle and wanting to provide students with the possibility of working with physical computing materials again, facilitators sent students prefabricated kits with the technological components they would use during the program. Students were encouraged to use found and recycled materials again and were sent some basic art supplies.

Because students worked with physical materials, they could not collaborate on a single project. Instead, the group worked together to design a concept around a shared theme and created shared poetry. Each student created a sculpture with visual, literary, and interactive elements in response to this theme so that their individual projects were part of a collective, thematic whole. These projects came together as part of a virtual showcase for each other, family and friends, school

partners, and other members of the CWP community.

Third Year: 2021-2022

During the 2021-2022 school year, the students had returned to in-person classes. However, because of COVID-19 protocols at the NYU campus and CWP office, and a lack of access to other sites, the project had to be held remotely again. Instead of sending kits to the students (which had posed several challenges), the facilitation team used the danceON (dance Object Notation) program, which was easier to access by phone and tablet. This allowed the students to utilize materials they already had, including basic art supplies and other found materials.

Similar to the format of the previous year's programming, students developed individual projects around a shared theme. During the first sessions, participants worked together to select the theme of mental health, based on what was important to them and to their communities, as well as what was most relevant to the moment. This theme directly aligned with what facilitators had envisioned. During the curriculum development planning sessions, facilitators decided to integrate movement and other wellness practices into the sessions for this iteration of the workshops. Facilitators incorporated a ritual of gentle and restorative yoga poses and sequences, as well as breathwork. The use of danceON deepened these practices, since like other art forms, "Dance provides unique opportunities for embodied interdisciplinary learning experiences that can be personally and culturally relevant" and "danceON is a system that supports learners to leverage their body movement as they engage in artistic practices across data science, computing, and dance" (Payne et al., 2021). Students wrote individual poems and created mandalas that they integrated into videos, using danceON to incorporate their words, movement, images, and coding. These were all woven together into a final community video.

Fourth Year: 2022-2023

CWP 2.0 Summer Intensive Pilot Launch. During the 2022-2023 school year, as the facilitation team began to brainstorm the curriculum and timeline for the program, they were looking forward to returning to in-person sessions. They quickly realized the practical challenges this presented, however. The pandemic

had changed many things, including the boundaries many people have around their personal time. With the increasing rates of crime in the city and on public transportation, many students also expressed that parents were not willing to allow them to travel alone during the late afternoon and evening hours. Because social-emotional wellness is at the heart of the program, facilitators realized that the program's previous schedule—two afternoons per week, or one evening and one Saturday—would no longer be tenable. A summer intensive was, therefore, piloted in July of 2023. The program ran for six hours a day, for eight days at NYU's 370 Jay Street campus.

Challenges

The primary challenge that has presented itself during each cycle of the program, during both remote and in-person sessions, is a lack of time. The beauty of the transdisciplinary model is that all the projects that emerge are rich and can hold a balance of multiple perspectives, physical interactions, artistic entry points, and connections to social justice and community. It takes time, however, to develop the skills in one discipline to weave it together with another. Students must learn, for instance, how to write metaphors if they want to create code in danceON to manipulate specific words with which an audience can interact for a particular effect. Using the same example, students might also need to understand basic color theory and/or the use of visual symbols so that the visual art reflects and expands on the literary and computing components.

When students created interactive "Poem Puzzles" during the 2023 Summer Intensive, for instance, they had to understand how to manipulate the structure of a poem, word placement, and line breaks. They also had to learn how to program the LED lights and sensors they integrated into their poems to help the audience read a poem "correctly." They then had to determine how these components worked visually and what other visual elements were necessary to convey the meaning of their poems. Each skill must be scaffolded and taught separately and together. One of the above examples could easily take weeks to create, and the entire duration of the program has never been more than 40 or 50 hours.

Extending the program presents another set of challenges: designing a schedule for a large facilitation team and for students who are engaged in a number of other programs; and funding an expanded timeline would mean increases to the

program's budget which has not been possible thus far.

Outside of these logistical challenges, the program's format and transdisciplinary focus are challenging, encouraging everyone to work beyond their comfort zones. There is a balance to ensuring this work fosters creativity, confidence, and empowerment and does not burden the students or facilitators as integrating growth and learning requires rest. Longer or added sessions might not allow for sufficient time to process the information and experience in a meaningful and enduring way.

Certain other challenges have been specific to the program format during a particular year. Below are some of the challenges that students and facilitators have faced based on whether the program was run virtually or in-person.

Challenges Specific to Remote Sessions

- Students sometimes had limited access to devices and/or access to sufficiently high internet speeds.
- Students did not always have quiet spaces within which to work, which sometimes made it difficult for them to focus and/or participate in group discussions and collaborative work.
- Disseminating materials to individual students could be costly and/or cumbersome.
- Students seldom participated with their cameras on, which facilitators respected from a student-centered and trauma-informed perspective. It meant, however, that facilitators were not always able to provide the necessary support.

Challenges Specific to In-Person Sessions

- The CWP 2.0 program manager could not find a convenient location that was accessible to students traveling from the far ends of different boroughs.
- Facilitators considered hosting the program in a more central location, but this presented separate challenges regarding storing materials and

funding. It would also mean that students would not have the same access to the equipment at the MetroTech campus.

- It was not easy to determine the schedule of the program, particularly after the pandemic, when most students were not able to travel on public transportation after school.

Program Goals and Achievements

What Facilitators Hoped to Achieve

The program began as a way to provide exposure and pathways to career and educational opportunities to which students from marginalized communities have been excluded. Facilitators hoped to teach students new skills in each of the disciplines, while also forging opportunities to connect the disciplines and develop new disciplines from the work created. The goal was that this would not only encourage students to imagine careers in the arts and technology, as well as careers that integrate these disciplines together, but also to approach any of their interests and future careers from new vantage points because of how they have learned to think across modalities.

What Has Been Achieved

As the program grows and shifts, and the professors and graduate students on the team learn from the research they are conducting, it seems that the CWP 2.0 team has achieved its goals. Students learn new skills in each of the disciplines and learn ways to connect across and beyond disciplines. They also create meaningful and beautiful work. Facilitators and community members are awed by the projects that emerge each year.

It was immediately apparent during the first session of the initial 2019-2020 cycle of CWP 2.0, that the program was striking a powerful balance between joy and excitement, and vulnerability and growth. By the second session, which took place on a Saturday in January, the program ran overtime. Students and facilitators alike were so engaged in the projects that they did not want to stop working. Subsequent sessions were the same; everyone wanted to work and collaborate. There was no “wasted” time. Each activity, game, ice breaker, and

brainstorming session was integral to the poetry-making, photography, and coding. It was equal parts serious and playful.

During the 2023 Summer Intensive, students had several materials at their disposal and were encouraged to experiment with everything available to them. The educators in the room did not tell them what they “could” choose from, but instead told them to peruse and explore. The students then designed their projects with the materials that moved and inspired them. By the first afternoon, the group had turned the classroom into their workshop. Soon, there was barely a square of white tabletop visible under the strips of textured paper, markers, wires, small motors, and glitter.

With the offices and classrooms nearly empty because it was summer, students were also encouraged to utilize other spaces. They worked and took breaks in the lounges outside of the classroom. They took a tour of the MetroTech campus and the MakerSpace. These invitations to explore empowered them, and this trust on the part of the educators that the students knew what they were doing, further encouraged the students to take more risks, be more innovative, and learn new skills.

As in each previous year, students arrived early and stayed late during the Summer Intensive. By the second day, students arrived 30 minutes early and dove into their projects. Each day, they lost track of time and had to be reminded, sometimes many times, to stop for lunch, and get up and move around. Within eight days, each student had created an individual project and two group projects, each transdisciplinary and interactive in nature and developed around a social justice theme: *What the world needs*.

One year the project began with a community poem, inviting in all the pieces of *who we are and were*. The resulting digital tapestry anaphora—a poem in which the beginning of a line repeats—where each line began with, “I am threaded by,” accepted and embraced the simultaneity of the individual community members as well as the collective community. From there, students and facilitators threaded the themes that emerged during the lessons and expanded on the idea of community. The facilitators were guided by what was important to the students, and they were guided by each other’s interests to create something new.

Each year facilitators learn from and about the students—their interests and skills—and respond to these, shaping lessons and activities, leading, and being led. In

this way and through the transdisciplinary nature of the program, a space is created for everyone to use and celebrate the skills, knowledge, and materials they have and bring, and to challenge themselves to take risks, learn, play, and grow.

Conclusion

The program has been created and is expanding, such that without one element, it is no longer the same program. Similarly, while the foundation of the program is the same, the nature of the projects, what is taught, and how, changes each year, based on who is in the program, the environment in which everyone works, and the external and internal circumstances by which everyone is being guided. CWP 2.0 takes a holistic approach, wherein the weaving together of the disciplines—visual, digital and literary arts, and computing—with social justice themes and SEL practices, is intentional and wherein each strand of the tapestry is necessary for each other strand.

During the spring of 2020, when the entire world was in crisis and community felt far out of reach for so many, the CWP 2.0 community came together in creative dialogue. One of the main goals of the program was to create public art with which an audience could interact. While the students were not able to fulfill their original project plans (using different motors to trigger sensory responses), their transdisciplinary digital collages became a tapestry. The [CWP 2.0 Website](#) houses—literally within the image of a building similar to the NYC buildings in which many students live—this beautiful work and the spirit of CWP 2.0 which does not change even as the individual strands do. This spirit was embodied during the CWP 2020 virtual benefit, [Reimagining Community](#). The event was a tribute to and celebration of this powerful program, its amazing students, and what can happen when a community of learners can fully embrace simultaneity.

References

Community-Word Project. (2020, November 11). *Reimagining Community*. YouTube. <https://www.youtube.com/watch?v=sXY27U-lm50>

CWP 2.0 (2020, May). CWP 2.0 Website.

<https://cwp2point0.hosting.nyu.edu/index.html>

Payne, W. C., Bergner, Y., West, M. E., Chapp, C., Shapiro, R. B., Szafr, D. A., Taylor, E. V., & DesPortes, K. (2021). danceON: Culturally Responsive Creative Computing. In *CHI Conference on Human Factors in Computing Systems* (CHI '21), May 8–13, 2021, Yokohama, Japan. ACM, New York, NY, USA. <https://doi.org/10.1145/3411764.3445149>

Share



Authors

Elizabeth Argelia Leonard 

Issue

Volume 52 • Issue 2 • 2024 • Centering Community Healing, Sustenance, and Resilience in STEM and Computing Education Through Art and Social Justice

Dates

Accepted	2024-02-20
----------	------------

Published	2024-07-31
-----------	------------

Licence

Creative Commons Attribution 4.0 International 

Identifiers

DOI: <https://doi.org/10.35240/vue.116>

Peer Review

✔ This article has been peer reviewed.

File Checksums (MD5)

| ISSN: 1553-541X | Published by [Metropolitan Center for Research on Educational Equity and the Transformation of Schools](#) | [Privacy Policy](#) |

English (en) ↕