Honoring Black Women's Work: Creating a Parent and Caring Adult Community to Support Youth STEAM Engagement

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Abstract—Leveraging Black Feminist Thought (BFT) as a framework for parent engagement and using testimonial authority as our research method, this paper describes how meaningful interactions were intentionally fostered among Black and Latinx parents in the Digital Youth Divas Program (DYD), a STEAM program designed for Black and Latina middle school girls. Specifically, the DYD's Community Relations and Engagement Manager (CREM), a Black woman and community resident, describes how she navigates local power structures that impede parent and youth participation in STEAM opportunities by creating a sustainable parent community with strong social capital and effectively communicating with parents in inclusive, culturally relevant ways that build trust. Her experiences highlight the multiple roles Black women play in transforming their communities to address issues of equitable and just access to quality informal learning opportunities as an act of resistance to historical inequity. Moreover, by highlighting her success in building a community of support for Black and Latina girls in STEAM, we argue that it is important for learning initiatives to leverage the power of Black women as change agents in their communities through equal partnership, proper compensation, and recognition of their contributions to STEM enrollment, persistence, and retention.

Keywords—Black feminist thought; parent support roles; Black and Latinx families; STEAM; girls; STEM;

I. INTRODUCTION

With an increased focus on exploring approaches that address inequities in STEM participation, particularly amongst women and racial minorities, there has been a plethora of efforts to create culturally relevant pedagogy and safe informal learning spaces that focus on equity [1], [2]. While creating positive experiences for youth is essential to increasing STEM engagement, it is also imperative to engage youth's parents and caring adults in meaningful, inclusive ways. Prior literature suggests that parent involvement in out-of-school time (OST) STEM programs benefits youth's academic participation and retention [3] and that parents influence their children's technology growth and learning through their own values and knowledge [4], [5]. Parent support (e.g., collaborating on STEM projects, brokering new learning opportunities through relevant networks, providing non-technical support) is essen-

tial to youth's success in STEM [4]. Therefore, purposefully engaging Black and Latinx parents and caring adults is vital to increasing STEM participation, interest, and retention amongst the Black and Latinx youth whom they support.

In this paper, we share our experience communicating, engaging, and supporting Black and Latinx parents and caring adults with youth in Digital Youth Divas (DYD), an OST program created to engage Black and Latina middle school girls in design-based engineering and computer science activities launched through non-stereotypical narrative stories [6]. Specifically, our Digital Youth Divas Community Relations and Engagement Manager (CREM) describes her experience being a Black community resident while facilitating and leading parent communication and engagement initiatives and how that relates to our team's overall approach to relationship building with parents with is situated within a Black Feminist Thought framework. Her reflections suggest that building trust and capacity in communities to create interest and buy-in for STEAM opportunities requires living and working in the community, asking questions and learning how to appropriately interact with and respond to community needs, and investing in the community to both build and then leverage social capital. This paper provides insights into the role that Black women play in their communities and how they have the ability to enact community level change through informal learning opportunities. We argue that researchers, practitioners, and educators should acknowledge and partner with Black, Latina, and Indigenous women when attempting to create community STEAM programs.

II. BACKGROUND

Black Feminist Thought (BFT), a critical social theory introduced by sociologist Patricia Hill Collins based on a long history of Black, Latina, and Indigenous women's approaches to feminism [7], positions and values Black women's lived experiences as knowledge that is critical to understanding structural oppression, "both for Black women as a collective and for that of other similar oppressed groups" [8, p.12]. Rooted in social justice and activism, BFT critically examines unjust power relations by re-conceptualizing intersecting pow-

ers that create oppressive experiences and conditions as well as methods of resistance to domination and systemic oppression [8]. Furthermore, BFT acknowledges ongoing epistemological debates concerning what counts as knowledge, taking a stand against traditional academia, which often dismisses and ignores the shared experiences of the oppressed as knowledge that can contribute to an area or field [8], [9]. By centering Black women as experts in their lived experiences, BFT also focuses on dismantling systemic oppression and racism that has impacted all oppressed groups by transforming the spaces, places, organizations, institutions, and communities in which we live. We take a similar stance in our approach to designing programs, tools, technologies, and practices to support Black and Latina girls.

One concept from BFT that we use to frame our approach to creating DYD is "community othermothering," which is where Black women have historically become caregivers to their blood family as well as to their communities at large, engaging in local activism that advances their community's social and economic outcomes. "These women not only feel accountable to their own kin, they experience a bond with all of the Black community's children" [8, p. 205]. Community othermothers are vital to communities that have historically experienced oppression as these communities typically have women-centered networks that support low-income families during difficult times, creating a "village" to raise youth that are safe and that hold youth accountable for their actions in a loving, restorative (as opposed to punitive) way. Not all community othermothers have children, but they all care about the livelihood and success of the local youth and take measures to actively ensure that youth have equitable opportunities. "Community othermothers' participation in activist mothering demonstrates a clear rejection of separateness and individual interest as the basis of either community organization or individual self-actualization. Instead, the connectedness with others and common interest expressed by community othersmothers model as very different value systems, one whereby ethics of caring and personal accountability move communities forward" [8, p. 207]. We leverage this notion of community othermothering in the inclusion of a CREM on our research team – recognized and compensated for her invaluable experience as a community leader and activist who has the ability to support and connect youth and families to informal learning opportunities as well as to build social capital amongst parents and caring adults within the community.

III. POSITIONALITY STATEMENT

Following the methodology of *standpoint theory* [10], we include a positionality statement about the authors. We are six women with collectively over three decades of designing educational programs and technologies to support Black and Latinx youth engagement in STEAM, computing, and digital media. Four of the authors identify as Black, cis-gendered women, and two as Asian cis-gendered women — all from middle to upper-middle class backgrounds due to socio-economic status and educational attainment. Half of the authors live in the community from this study; thus, we leverage not only our lived experiences as community residents but also oppression we have personally faced due to gender and sometimes intersectionally race and sexuality [11], [12] in our computing education and society more generally. We recognize that our status as cis-gendered, upper-middle class, and able-bodied people afford us privileges that shape the lenses through which we understand and experience the world.

IV. CONTEXT AND METHODS

Based in an economically and racially diverse mid-size city, DYD is an OST STEAM program designed for Black and Latina middle-school girls, which provides project-based engineering and computer science activities launched from non-stereotypical narrative stories [6]. The DYD engages families by hosting an array of opportunities ranging from weekly STEAM learning sessions for the girls to social events for parents and caring adults, where they eat together, network, and learn about ways to support their girls' engagement in STEAM. The parents and caring adult events are intended to help establish and strengthen social relationships and STEAM knowledge.

In this paper, we leverage the concept of *testimonial authority* [12] to honor Black women describing their lived experiences. This is a direct effort against dominant culture's tendency to deny or dismiss the experiences of those in non-dominant groups [8], which is a form of epistemic violence (i.e., where the experiences shared are silenced, suppressed, or ignored) [9] [12]. Here, we make an explicit effort to allow the experiences of Black women to stand as an act of resistance against epistemic violence. Our findings consist of testimony from our CREM about her role, identities, and work in the community, which was prompted by questions asked during an informal interview with a member of the research team that was recorded and transcribed. Interview quotes were lightly edited by the CREM (an author on this paper) to ensure their accuracy and anonymity of the community.

V. FINDINGS

A. Living, Working, and Recruiting within the Community

I joined the DYD team as a community manager just over a year and a half ago. Immediately upon taking the position, I started to consider, what does this mean for my life? So I understood that in taking the role, most of it would be centered in Graceland (pseudonym) – which would be new territory for me. And so it would expand on connections that I had in [NEARBY CITY], specifically the [NEIGHBORHOOD] area, and then Graceland was going to be like new territory. I really thought of this as a way for me to connect my worlds in a different kind of way, so I actually moved up to Graceland because I thought well you know if I'm going to be taking on making connections in Graceland, what better way than to be a part of the community?

The focus was on, what are the cultural norms of Graceland and what are the cultural norms for how Graceland engages with [UNIVERSITY] because, after all, DYD is a

[UNIVERSITY] project so that comes with some, and I had to learn this too, that comes with some positive feelings for some community members and some negative. Learning the history of conflict and resolution efforts between the university and the community, directly informed how I communicated the program offerings and highlighted my own identity when connecting with parents. I am a parent, a woman of color, and I also represent an institution. Navigating these conversations and space while really harnessing all my identities at once has been interesting, because I haven't necessarily had to always do that. When working in [NEARBY CITY], I could take on the piece of representing the institution in a space, I could take on the piece of representing the community in a space, and I'm always representing a Black woman in spaces, but the call to be all of those things all the time in Graceland called for a new level work-life balance I didn't foresee. Coming from a large urban setting, I was afforded opportunities to disengage in work at home, etc. However, the Graceland has a small town climate, where everyone knows everyone so you can't go to the local 7-11 on the weekend without consciously preparing to be all three of those things: a Black woman and parent, representing [UNIVERSITY] because it's very likely you will run into a parent or coworker. So you're always on and you always should be ready to engage in conversations related to those identities. When trying to build community with and amongst parents, it's actually a huge benefit if leveraged.

I attribute being a community newbie or outsider a benefit to entering into the work of DYD because I'm able to ask questions and people expect it because I'm new. I am also able to ask sensitive questions that confront racial stereotypes. I believe that because I'm a woman of color doing this work, my motives aren't questioned, and sharing my own lived experiences as a parent of color navigating systemic barriers helps ground the conversation in authenticity that's always been well received for me. In asking those tough questions, I'm able to learn the history more and more and these conversations always reveal and lead to the next person I should talk to. Those questions were really driving how I was moving the recruitment needle from just being a list of folks to actually developing relationships and connecting to micro-circles within this larger ecosystem. Then we decided to be formal about it. We said let's bring people to the table, by hosting a STEAM family forum on campus. The forum served dual duty, in that we asked them to help us learn about STEAM family engagement by picking their brains about what Graceland is like for STEAM engagement, for their youth, whether you have a girl or a boy, and we extended an invite to join our Caring Adult Network (CAN) advisory board if participating in activities that contribute to knowledge and research happening at [UNIVERSITY] was something they enjoyed doing. We really left that meeting with like a list of 13 to 15 people committed to our CAN work on an ongoing basis.

B. Learning Culturally-Relevant Ways to Interact

Relatively quickly, I was connected to many different circles within Graceland. In all these different circles, it seemed like everyone was saying the same thing, that we don't really get together as Black and brown folks, and how can we start to get together. But there were all these community events, there were social events that I would show up to because I'm trying to dig deep into what the culture is in Graceland so that I can connect with parents on a one-on-one basis, and people weren't showing up. So I'm like okay now, this is a fun event, like why weren't the Black and brown adults from these various groups showing up? What was it about the event? What was it about the organizers and marketing and so on? I started to ask those tough questions when I would meet new people. I was conscious to not come off as rude or judgemental, while leveraging my identity to make almost immediate synergy as a female Black parent new to the community. Then they would be very real and open with me, and I appreciated that. One of the main questions I would ask, and how I started to dig into some of the history was, I'm trying to recruit for this free STEAM program for girls right, DYD, and I just cannot understand how a free STEAM program at [UNIVERSITY] is offered for Black and brown girls and our people aren't just like knocking down the doors and on a waitlist. That line of inquiry helped me identify barriers that may exist for that person, understand who they identified as their community in Graceland and solutions they believed would help get me and the program connected in impactful ways.

There was a local Mexican entrepreneur I met while picking up dinner at her restaurant. I saw she had a daughter about DYD age so I began to tell her about the program and that's where our friendship in the work began. She made one-on-one calls to families at her church to make sure that they showed up [to a recruitment event for Latinx families]. She would call me at night with updates to say, "I have 15, 16, 20 families signed up, this many kids" and so on. "I'm going to try to get some more," she would say. She championed that list and the connections to her church families. I previously took flyers to the same church with a friend of the program who is white, who is a long time member, and neither of us had that much response, and we didn't understand why. Well, I felt we were comfortable enough to ask her that tough question of why the Latinx population wasn't responsive to programmatic outreach efforts and learned why. One major reason is because that community is not open and trusting of open invitations to show up to places, especially in an environment where Trump was the President. They see all those types of opportunities as ways for the government to challenge their citizenship, so it didn't feel safe. But by her inviting them, there was a safety factor for them to (1) open up in the meeting and feel like it was a safe space, and (2) even just consider it, you know, because they do not just show up at open calls for anything, including learning about programs. We learned more [about recruiting] but this was one of the most insightful takeaways.

C. Building and Leveraging Social Capital

One of the ways that I engage in community building is through one-on-one interactions...using spaces that are community-driven events and that are dedicated spaces for DYD events to also connect with parents on a one-on-one basis.

Because once I am able to understand them to a degree of familiarity, it helps me understand and identify barriers that may exist, the challenges and the opportunities. Then I'm able to connect what we have to offer and what I have offered personally. I'm an individual outside of my work, and I have connections to resources and networks. I'm not super famous, but we all have some connections, networks, and resources. I intentionally have the conversation circle back to that individual, and say 'Hey, did you know about this, this, and this.' And in doing so, I become a resource for them. Building that authentic connection and so when they see me they don't see [self-reference] from [UNIVERSITY]'s DYD coming; instead, they see somebody who was down for them, somebody who is interested in what they have going on. So then now they become interested in what I have going on, so when I say that I'm charged with increasing enrollment by 50, they're like "Girl I got you, you know, hold on, let me connect you to this person and let me connect to that person," because there's this feeling of a mutually beneficial relationship that has formed and it's an authentic way that is not just me sending you a flyer, asking for something with no return.

Before I came [the team] already had this plan for doing a social: sip, shake, and make. But they didn't have a real hard plan for what it would be. I started to learn quickly in doing community work in Graceland that...the Black community in Graceland loves to support the Black community in Graceland. So I eventually started serving on the Black Professional Network of Graceland, a newly formed board with the local Chamber of Commerce. Learning the business community, how business is conducted in Graceland and where some of the opportunities exist and don't exist for Black businesses helped me to understand what the culture was when it came to supporting each other. So I learned that if you're hosting something in Graceland and depending on where, which ward, it's best to contract within that ward and support a local minority-owned business if possible.

As an example, I hosted a chocolate social, which was a space that was made for and by the community, because each of those pieces of the puzzle came together at that event and all cultivated the importance of the event in their individual silos. We targeted our efforts for recruitment in a similar silo conscious way. When talking to parents, it was marketed to them as a fun event for them to come to relax, we have food, we have drinks, we have babysitters, and connections to programmatic resources. What more do you need? In the Graceland programming circle, the message was to highlight the opportunity to connect with Black and brown families. So we actually had [a local politician] come and kick-off that event as a welcome. So you have this one event, this one pause-snapshot-point-in-time in which you set the stage for all these different circles and messages to come together in a fun environment, but in a way that breaks down the barriers of elitism, status, etc. I can go on and on about the negative barriers that may exist. It's not the norm that parents with youth participating in programs like DYD have the opportunity to connect with the CEO of one program, an alderperson, local library staff, other parents primarily of color, all at the same time...and then we had a chocolatier from Graceland contracted to host the STEAM activity that we did for that day. She was able expand her network by sharing her talent with a bunch of people who may not or may have known about her... We actually had an emcee from Graceland that creatively narrated the experience. Yeah, it just all came together quite poetically.*

VI. DISCUSSION AND CONCLUSIONS

Reflections from the CREM showcase how community connection work, which is essential to STEM youth engagement, is complex, requiring strategy, immense dedication, and empathy. The CREM was intentional about both living and participating fully in the community and focused on asking the right questions to establish and strengthen relationships. Furthermore, she demonstrates the importance of truly listening to community members and becoming a resource even outside of the institutional goals. This service is an example of the othermothering concept in BFT given the many, overlapping efforts and responsibilities embedded within this role: "most community othermothers simply work on behalf of the children, women, and men of their communities with little fanfare or recognition. While efforts on behalf of Black children often may catalyze their actions, working on behalf of the community means addressing the multifaceted issues within it. These women often remain nameless in scholarly texts, yet everyone in their neighborhoods knows their names." [8, p. 208]. Digital Youth Divas seeks to push back against this pattern of obfuscating the work of Black women by highlighting the work of the CREM, ensuring that she is a fully compensated and recognized member of the team, and acknowledging her immense expertise and skill. These are acts of resistance, meant to create change and justice in small and big ways in the work of creating and providing STEM learning opportunities. As we continue to strive to improve our efforts to honor the Black women, we charge researchers and educators to do the same in their teams and communities.

VII. ACKNOWLEDGMENTS

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